

EFFECT OF WORKPLACE OSTRACISM ON COUNTERPRODUCTIVE WORK BEHAVIOR--- PSYCHOLOGICAL CONTRACT BREACH AS THE MEDIATOR

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Abstract

As a kind of negative behavior, Counterproductive work behavior is general and can cause great harm to the organization. Therefore, how to reduce counterproductive work behavior is of great theoretical and practical significance. To explore effective measures, this study observes the relationship between workplace ostracism and counterproductive work behavior. Based on the frustration-attack model proposed by Berkowitz and Spector, it further analyzes the mediating role of psychological contract breach. Based on the investigation of 461 employees and 172 corresponding supervisors from eight Chinese companies, the hierarchical regression analysis showed that: Workplace ostracism has significant positive effect on counterproductive work behavior, and psychological contract breach plays a mediating role in the relationship between workplace ostracism and counterproductive work behavior. The result provides a new theoretical perspective for further understanding the relationship of workplace ostracism and employees' counterproductive work behavior.

Keywords: Workplace ostracism, Psychological contract breach,
Counterproductive work behavior



Introduction

Counterproductive work behavior is the employee's deliberate behavior that violates organizational rules and threatens the interests of members of the organization or those of the organization (Bennett, 1995). In the past decades, counterproductive behaviors of employees in the workplace has become a focus of concern for scholars as well as for the business community. According to early research data from European and American researchers, 33% to 75% of employees have ever deceived colleagues or sabotaged public property (Harper, 1990), and nearly 50% of women have been sexually harassed in the workplace, and even 7% of employees have been threatened by colleagues in the workplace (Gruber, 1990). At the same time, such counterproductive work behaviors exert pernicious negative impact on the organization. For instance, Schneider's statistics (1994) showed that employee theft caused losses of 200 billion U.S. dollars per year.

What are the factors that cause the employee's counterproductive work behavior? By sorting out previous research literature, we found that previous researchers divided the antecedent variables causing counterproductive behavior into two categories. The first category is the difference in individual characteristics (including age, gender, position,

personality, attribution preference, etc.). The second is the organizational situation (including salary system, leadership style, organizational culture, etc.). However, Peterson (2002) pointed out after research that the direct influence of differences in individual characteristics on counterproductive behavior is not so significant, so he called for researchers to explore the situational factors that influence individual counterproductive behaviors from the perspective of organizational context. Based on this conclusion, this study answer the research questions in terms of workplace ostracism. For workplace ostracism is a typical "cold violence in office" which prevails in organizations, and it directly threatens the employee's needs of individual meaningful existence, such as the needs for affiliation, self-esteem, and control, so it has a tremendous negative impact on the psychology, attitudes, and behaviors of the members of the organization. This has become a social affliction.

Second, although some scholars have pointed out that workplace ostracism may lead to counterproductive behaviors of employees, the intrinsic link between workplace ostracism and counterproductive work behavior may be complex. Therefore, the internal operating mechanism must be further examined. Based on the frustration-attack model proposed by Berkowitz (1989), we propose that psychological contract breach as a "key work attitude"

(Morrison, 1997) may be an important intervening variable linking workplace ostracism and counterproductive work behavior. Related researches have also pointed out that psychological contract breach have many negative effects on employees' work attitudes and behaviors, including reducing organizational citizenship behavior and organizational commitment, increasing conflict behavior, and even decreasing the willingness to stay (Coyle-Shapiro, 2002). Psychological contract breach is a key issue influencing organizational performance research. By constructing and verifying the theoretical model of relationship between workplace ostracism and counterproductive work behavior, this study responds to the point that workplace ostracism is the influencing factor of counterproductive behavior. It also considers the possible mediating role of psychological contract breach in the relationship between workplace ostracism and counterproductive work behavior. This is of great significance to the unveiling of the "black box" between workplace ostracism and counterproductive work behavior.

Literature review

Workplace ostracism

The concept of "workplace ostracism" originates from social ostracism. Sliver (1994) uses the concept of "social

ostracism" in studying unemployment and poverty in France. He pointed out that social ostracism refers to the rupture of the relationship between the individual and the society as a whole, namely, the process in which an individual is rejected by others or a social group. Based on the concept of social ostracism, Ferris (2008) puts forward "workplace ostracism". He proposes that workplace ostracism is the manifestation of social ostracism in the organization. The concept refers to perceived neglect, indifference, refusal, and exclusion from others. Such behaviors include one's being neglected by others, one's requests being treated with indifference, others' avoid from contact with them (including eye contact and language exchange), being excluded from group activities, and hidden by others. Robinson et al. (2013) defined workplace ostracism as individuals or groups being neglected or forgotten by others and unable to participate in working relationships. This concept contains the following two meanings: first, workplace ostracism is a subjective personal perception and experience. Whether being excluded or not in actual work and how the level it is depends on the individual's subjective evaluation. Second, workplace ostracism is a cold violence that generally does not involve verbal abuse and physical assault. Recent research shows that workplace ostracism has a significant impact on the attitudes, behaviors of the individual and organizational

performance. Twenge (2009) pointed out that individuals who are excluded from others may have aggressive behaviors and even less involved in helping behaviors or prosocial behaviors. Zadro (2013) found that individuals who experience ostracism in the workplace have negative emotions such as sadness and disappointment because their basic needs such as belonging and self-esteem are not met. Hitlan (2014) showed that employees' workplace ostracism and mental health were negatively correlated. The response of the activation area of cerebral cortex of the ostracized individuals was consistent with that of physical pain, and it caused depression, loneliness, sadness and other negative emotions.

Counterproductive work behavior

Taylor (1911), he has noticed counterproductive behaviors in a study on productivity improvement, such as the phenomenon of workers' dawdling on the job and the threatening of colleagues to absenteeism. Bennett (1995) defines it as a deliberate act that violates organizational rules and threatens the interests of members of the organization or of the organization. Gruys (1999) summarizes counterproductive behavior into 11 categories: destruction of property, absenteeism, alcohol abuse, poor quality of work, abuse of time and resources, drug abuse, attacking

colleagues, unsafe behaviors, information abuse, theft, misconduct, etc. After 2000, due to the rapid changes of the economy and society, enterprises are facing more and more problems, and researches related to counterproductive behaviors appear in large numbers. Many empirical studies have found that organizational contextual factors are important source of counterproductive behaviors. Hershcovis (2010) pointed out that organizational contextual constraints are linked to organizational violations, and interpersonal conflicts are linked to interpersonal violations.

Psychological contract breach

The psychological contract is the psychological basis for the social exchange between employees and the organization, and it is often used to describe and explain the most important analytical framework for employee-organization relationships (Taylor, 2005). However, with the changes in the business environment of enterprises, the competition between enterprises has become increasingly intensified. Many companies have to reform their organizations in order to survive and develop, which increases much uncertainty (such as work safety, career development uncertainty, etc.). Traditional employment relationship in which working hard can gain stable job has changed, while now employees think from their own point of view that the responsibility of the company is not

fulfilled. In such context, psychological contract breaches frequently (Robinson & Morrison) , 1995). Psychological contract breach has many negative effects on employees' work attitudes and behaviors, including reducing organizational citizenship behavior, decreasing organizational commitment, increasing conflict behaviors, and even reducing the willingness to stay at work (Coyle-Shapiro, 2002). Therefore, psychological contract breach is one of the key issues in the research of organizational performance (Gues, 2004).

The “frustration-attack” theory

The "frustration-attack" theory of American psychologists Bollard et al. (1939) argued that attacks are usually the result of setbacks. The production of attacks is usually premised on occurring of setbacks. Therefore, when a person encounters setbacks in an attempt to achieve a goal, it is possible to launch an attack. Berkowitz (1989) supplemented on this view and believed that frustration produces aggressive behaviors only when it reaches a level at which negative emotion appears. Berkowitz (1989) revealed the implicit affective agent in the "frustration-attack" model and drew a new cognitive connection model of "frustration event-negative emotion-aggressive behavior". Therefore, it is not

the frustration event that really works. It is the state of mind to deal with frustration that does. Miles et al. (2002) believed that the difference between counterproductive work behavior and organizational citizenship behavior lies in whether the individual faces organizational conditions with negative emotions or positive emotions. Positive emotions generate organizational citizenship behaviors, while negative emotions are important factors leading to counterproductive behaviors (Spector and Fox, 2002). And Bolin and Heatherly (2001) specifically studied the correspondence between negative emotions and various counterproductive behaviors. According to the "frustration-attack" model, this study holds that workplace ostracism, as a contextual factor of experiencing setbacks by employees, can influence the perception and emotion (such as psychological contract breach) of employees and ultimately affect the employee's behavior (counterproductive work behavior).

Research hypothesis

The relation between workplace ostracism and counterproductive work behavior

Workplace ostracism is a negative form of interpersonal interaction. It is a painful experience for the ostracized.



Ferris (2008) believes that workplace ostracism is the feeling that employees are rejected and ignored by others in the workplace. For example, the employee is neglected, treated indifferently, or excluded from collective activities, avoided from contact, and hidden from public affairs. This definition contains threefold meanings: first, workplace ostracism is a kind of subjective perception and experience of the individual. The level of ostracism in practical work depends on the subjective evaluation by the individual. Second, workplace ostracism is a form of cold violence. It does not generally involve verbal abuse and physical attacks. Third, the source of ostracism is multiple. It can be a colleague or a superior leader.

Previous research results have shown that workplace ostracism can lead employees to show a series of non-adaptive behaviors. Twenge (2001) found through empirical research that ostracized employees tend to have aggressive behaviors. But Baumeister's (2007) study found that employees who were ostracized from the workplace showed less prosocial behavior or helping behavior and were more inclined to have self-defeating behavior. Hitlan & Noel (2009) conducted a questionnaire survey of 105 employees in a public service in the Midwestern United States and found that there was significant positive correlation between peer ostracism and interpersonal

counterproductive behavior, and there was positive correlation between superior ostracism and organizational counterproductive behavior.

Workplace ostracism, as a negative interpersonal interaction experience, directly affects the employee's perception of interactive fairness. Unfairness is an important predictive variable leading to the employee's counterproductive behavior, which has been confirmed by empirical research (Fox, 2001). The social exchange theory holds that all social activities of people aim at exchanging. Social exchange includes material exchange and spiritual exchange. The exchange between people follows the principle of reciprocity and fairness. Therefore, people always hope to get reciprocal emotional respect, trust, and commitment in the process of social interaction and interaction. If others are friendly, they will also return goodwill and vice versa. Therefore, if the employee is ostracized by others in the workplace, such ostracism will destroy the social exchange relationship between the employee and his/her colleagues or that between he/she and the organization, which will inevitably lead to the sense of fairness and imbalance, and finally bring about counterproductive work behavior. Thus the following hypothesis is proposed.

H1: workplace ostracism is positively related to employee counterproductive work behavior.

The effect of workplace ostracism on psychological contract breach

Psychological contract refers to a series of unexpressed mutual expectations affecting the relationship between the employee and the organization (Levinson, 1962) Schein (1965) defines psychological contract as the sum of mutual expectations between the individual and the organization. Psychological contract does not only refer to expectations, but also includes the commitment and reciprocity of responsibilities and obligations. It contains what employees believe they deserve (Li Yuan & Guo Dejun, 2002). When joining an organization or being at work, the employee has expectations for the organization. When an disappointed event occurs in the organization, psychological contract breach is inevitable. Generally, the employee's expectations for the organization include: (1) Expectation for belonging. Since humans have social attributes, they expect to belong to a specific organization or group, and to maintain social connections. However, workplace ostracism cuts off the social relations between the employee and others, thus undermining the expectation of belonging. (2) Expectation for self-esteem. Self-esteem is an important factor for maintaining and generating positive emotions (sense of achievement, sense of well-being, self-confidence,

etc.). Workplace ostracism hurts the self-esteem of the ostracized employee, because ostracism in the workplace implies that the ostracized person is unpopular or insignificant. (3)

Expectation for control. All of men want to maintain control of the circumstances around to reduce the influence of the surrounding uncertainty. Workplace ostracism undermines the employee's sense of control in interpersonal interaction, for no matter what the ostracized has said or done, there is no response from others. (4) Expectation for meaningful existence. Workplace ostracism deprives the ostracized person of the meaning of existence in the organization, because ostracism often means “social death” in the organization (Solomon, 1991). The above analysis indicates that workplace ostracism makes the excluded feel no concern, support, and approval from colleagues or leaders. As a result, individuals in the organization are unable to establish good interpersonal relationships with colleagues or supervisors, and cannot find value of self-existence. Without opportunities for mutual care, employees' emotional needs are not met and their own values are not recognized. Therefore, the following hypothesis is proposed.

H2 : workplace ostracism is positively related to the psychological contract breach of employees.

The effect of psychological contract breach on counterproductive work behavior.

Psychological contract is the foundation of employment relationship (Schein, 1965). It consists of employees' expectations and beliefs. Psychological contract breach means that the individual believes that something less than expected occurs in the organization. A large number of studies have found that if an individual perceives psychological contract breach, the sense of unfairness is produced (Morrison, 1997), and the sense of mutual benefit between the employee and the organization will significantly decline (Turnley, 1999). According to Social Exchange Theory (Blau, 1964) and Fairness Theory (Greensberg, 1990), employees will compare their input to the organization with their own income. If they are unreasonable, they will take corresponding actions to balance themselves. Robert and Schalk (2007) explained psychological contract from the perspective of cognitive model and pointed out that it can be measured by two indicators: acceptable limit and tolerance limit. If the disappointing event happening in the organization exceeds the limit of the individual's tolerance, the psychological contract breaks down, negative emotions and behaviors follow, and even the employee may abandon the employment relationship

with the organization, namely, the employee may resolve to dismissal. Rousseau's (1995) empirical study proves that after psychological contract breach occurs, it will change the previous interaction between the employee and the organization. The research of Chiu & Peng (2008) shows that when psychological contract breach occurs, it will increase hostile behaviors and organizational deviant behaviors. Therefore, the following hypothesis is proposed:

H3: Perception of psychological contract breach is positively related to employee's counterproductive work behavior.

The mediating role of psychological contract breach

Psychological contract refers to the sum of a series of unexpressed mutual expectations affecting the relationship between the individual and the organization. To some extent, the individual's perceived organizational support meets the individual's social and emotional needs (compliment, recognition, support, etc.). This helps individuals to incorporate organizational identity into self-cognition and to embed themselves in the organization, and they are willing to make extra efforts for the achievement of organizational goals. When employees feel that the organization recognizes their values and care about their welfare, they will do

their best to help the organization accomplish the organizational goals. However, workplace ostracism sabotages the reciprocal relationship of mutual benefit between the organization and the employee. Ostracized employees are ignored, marginalized and isolated by others in the organization. Their emotional needs are not satisfied, resulting in cognitive misunderstanding of their identity in the organization, loss of sense of belonging and sense of identity. Furthermore, it will cause the reduction of sense of support from the organization, and the impediment to employees' willingness to contribute to the organization. On contrary, the ostracized employees do not get the support and value recognition from their supervisors and colleagues in their work, and even do not acquire their legitimate interests. As a result, they do not feel the support, care and recognition from the

organization. The employee will alienate from the organization, They are no longer concerned about the organization's goals and lose the motivation to contribute to the development of the organization as they lose organizational citizenship. Wei Feng (2015) also pointed out that when employees are ostracized, it shatters their expectations. In order to balance the emotional damage, they will revenge on the organization by the principle of “reciprocating teeth” and of negative reciprocity, which may lead to counterproductive work behaviors. Therefore, the following hypothesis is proposed.

H4: Psychological contract breach plays a mediating role between workplace ostracism and counterproductive work behavior.

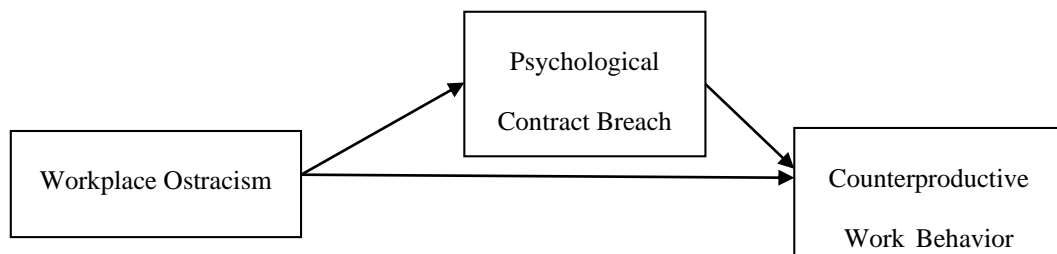


Figure 1 Theoretical model of the relationship between workplace ostracism and counterproductive work behavior



Research design

Study samples

In this study, I adopted survey approach to investigate more than 8 enterprises in the province where the researcher was located. In order to avoid homologous error and the subjectivity of work Behavior, the questionnaire is divided into 2 types: leadership questionnaire and employee questionnaire. The leadership questionnaire is filled out by the leader for evaluation of employee' work Behavior, and the employee questionnaire is filled out by the employee. Through the leadership questionnaires, the dependent variable data, i.e., the data of employees' counterproductive work behavior, are mainly collected, which can reflect the counterproductive work behavior of employees more authentically than the self-assessment of employees. In order to improve the quality of the questionnaires and reduce the deviation of the respondents' understanding of the questions, the researchers contacted the subjects before issuing the questionnaires, prepared the list of interviewees' information and coded the list to ensure the one-to-one matching between the leadership questionnaires and the employee questionnaires. Then, the staff will guide the completion of questionnaires on site and collect them on the spot. In this survey, 517 sets of questionnaires were issued, 493 sets were completed, 32 sets of invalid

questionnaires were eliminated, and 461 sets were finally valid, and the validity rate is 93.5%.

Scale selection

In order to ensure the reliability and validity of the constructs in the questionnaire, all mature measurement scales were chosen. Workplace Ostracism were measured by the scale of Jiang Jiang, Lu Zhengrong & Zhang Wen (2011) with 10-items. In this scale, self-evaluation (T1) was performed by the employees, such as the item "Leaders don't care about me". The items were scored by the 5-point Likert scale. The internal consistency reliability coefficient (Cronbach alpha) of the scale reached 0.86 (greater than 0.70 which was commonly used in management studies).

Psychological Contract Breach This study adopted the 8-item scale designed by Guo Yuan An (2002) to measure the psychological contract breach of employees. In the scale, self-evaluated was performed by employees (T1), such as the item "The company create harmonious interpersonal relationship". And the coefficient of internal consistency reliability (Cronbach alpha) reached 0.89.

Counterproductive Work Behavior In this study, the 18-item scale developed by

Yang & Diefendorff (2009) was used to measure counterproductive work behavior. The supervisor gave the evaluation (T2) in items such as “He intends to slow down the work”. The items were scored by 5-point Ranker scale. The internal consistency reliability coefficient (Cronbach alpha) of the scale reached 0.92.

Control variablesThe control variables of this study mainly include age, gender, education background and duration with the current superior.

Data analysis and results

Correlation analysis of variables

Table 1 shows the mean, standard deviation, and correlation coefficients of the variables. From the results given in Table 1, there is a positive correlation between workplace ostracism and employees' psychological contract breach ($r=0.351$, $P<0.01$) and workplace ostracism is positively related with counterproductive work behavior ($r=0.406$, $P<0.01$). There is also a positive correlation between psychological contract breach and counterproductive work behavior ($r = 0.418$, $p < 0.01$). These results preliminarily support the hypothesis of this study.

Table 1 Description of statistics and correlation analysis

Variables	Var1	Var2	Var3	Var4	Var5	Var6	Var7
1. Age							
2. Gender	.005						
3. Education Background	-.223*	-.133*					
4. Duration with the current superior	-.135**	-.010	.199**				
5. Workplace Ostracism	.021**	.043	-.174*	-.010			
6. Counterproductive Work Behavior	.043	.012	-.216*	.050	.406**		
7. Psychological Contract Breach	.075	.082	-.109*	.020	.351**	.418**	
Mean	35.57	1.43	2.84	3.18	2.65	2.27	3.35
SD	5.35	0.51	0.78	1.23	0.88	0.64	0.75

Note: The correlations of **at level 0.01 (double endings) and *at grade 0.05 (double endings) are significant. Var1: Age, Var2: Gender, Var3: Education Background, Var4: Duration with the current superior, Var5: Workplace Ostracism, Var6: Counterproductive Work Behavior, Var7: Psychological Contract Breach

Hypothesis testing

According to the paired data received by the leadership questionnaire and the employee questionnaire, this study used the method of hierarchical regression analysis to perform linear regression analysis using SPSS23.0. The results of the regression are shown in Table 2.

The principal effect

H1 suggests that workplace ostracism has a positive effect on employees' counterproductive work Behavior. In order to verify this hypothesis, the counterproductive work Behavior was regarded as the dependent variable, and the control variables (gender, age, educational background, duration of working with current superiors) were added successively to the regression equation. According to Model 4, Workplace ostracism was significantly and positively correlated with employees' counterproductive work behavior ($r = 0.479$, $p < 0.01$), so hypothesis H1 is verified.

Mediation effect

In order to verify the mediation effect of

psychological contract breach between workplace ostracism and employees' counterproductive work Behavior, the four steps verifying mediation effect proposed by Baron & Kenny (1986) was adopted in this study. According to Model 2 in Table 2, the positive correlation between workplace ostracism and psychological contract breach was significant ($\beta=0.279$, $p < 0.01$).

Therefore, Hypothesis 2 was supported. In Model 5, psychological contract breach is significantly and positively correlated with the employees' counterproductive work Behavior ($\beta=0.436$, $P<0.01$). Thus, Hypothesis 3 is verified. When psychological contract breach was introduced on the basis of Model 4, it was found that the influence of workplace ostracism on employees' counterproductive work Behavior was weakened in Model 6 (The value of β decreased from 0.479 to 0.323, $p < 0.05$). That is to say, psychological contract breach played a partial role in mediating the relationship between workplace ostracism and employees' counterproductive work Behavior. Therefore, Hypothesis 4 is supported.

Table 2 Hierarchical regression results

Variable	psychological contract breach		counterproductive work behavior			
	M1	M2	M3	M4	M5	M6
Controlled Variable						
Age	.045	.054	.006*	.008*	-.025	.003
Gender	.071*	.059*	.021	-.040	.052*	.034*
Education Background	-.048**	-.014*	-.118*	-.060	-.097	.057
Duration with the current superior	.021	.018	.005	.012	.014	.015
Independent Variable						
workplace ostracism		.279**		.479**		.323**
Intervening Variable						
psychological contract breach					.436**	.315**
R ²	.020**	.178**	.047**	.420**	.207**	.448**
ΔR ²	.020**	.158**	.047**	.173**	.160**	.028**
F	2.302**	16.355**	5.653**	45.736**	23.723**	42.571**
ΔF	2.302**	43.601**	5.653**	54.740**	91.514**	23.372**

Note: correlations of **at level 0.01 (double endings) and *at grade 0.05 (double endings) are significant. M1-6 represents 6 different regression models.

Conclusion and discussion

Counterproductive behavior is an emerging research topic in recent years, and it has attracted the attention of scholars because of its widespread existence in the organization and its harm to the performance of the organization. Recent researches in this field focus on the individual level. There are few studies on organizational contextual factors that cause counterproductive behaviors. To this end, this study took

461 employees and 172 leaders from 8 Chinese companies as the research objects to explore the effect of workplace ostracism on employees' counterproductive behaviors.

This study first verifies that workplace ostracism has a significant positive effect on employees' counterproductive work behavior. The results of this study show that ostracism from the workplace can predict counterproductive behavior. From the perspective of social exchange, maintenance of exchanges between two parties is based on mutual benefits to

both parties. When employees encounter ostracism, they will feel being marginalized by the organization, and the good exchange relationship between the employee and the organization is broken. The employee usually chooses retaliation of counterproductive behavior in order to reduce the sense of imbalance.

Secondly, this study reveals that workplace ostracism has a significant positive effect on employees' psychological contract breach. When employees encounter repulsive behaviors, their sense of psychological contract will increase. Compared with the previous antecedent study of psychological contract breach, this paper is innovative since it explores effect of workplace ostracism on employees' psychological contract breach by taking workplace ostracism as negative interpersonal behavior. Finally, the study reveals that psychological contract breach plays a partial mediating role between workplace ostracism and employees' counterproductive work behavior.

Contribution and implications

This research is based on predecessors and has some innovations. First, even if workplace Ostracism, Psychological contract breach and counterproductive work behavior have been separately studied in the past, but their relationship is still a research gap, which is focused in

this paper, it might contribute to the theory of their relationship. Second, the introduction of workplace Ostracism as a predictor of employee counterproductive work behavior into the existing research system enriches the cognitive path that affects the causes of counterproductive work behavior for us to explore the causes of counterproductive work behavior of employees from the perspective of organizational context.

Workplace ostracism is a kind of workplace “cold” violence. Although it may not cause apparent physical harm to the employee as the “hot” violence in the workplace, its psychological harm to the ostracized employees may be more serious than the physical harm to some extent. Recent research shows that ostracized employees tend to have negative emotions such as perturbation, irritability, and depression (Wu Longzeng et al., 2012). Workplace ostracism can lead to the cognitive burden and self-negation of the ostracized, and prolonged interpersonal loneliness can lead the ostracized to form a self-centered “defense shell” in order to prevent further hurt. And lack of sense of belonging and identity, the ostracized will alienate from the organization and become indifferent to it, and even do something not conducive to the development of the organization. Therefore, companies should pay full attention to the harm caused by workplace ostracism, and actively prevent workplace ostracism or take

measures to reduce the negative impact of workplace ostracism. The specific measures are as follows: first, companies can restrict ostracizing employees' repulsive behaviors by explicit rules and regulations to reduce the ostracizing behaviors, and punish those who have severely sabotaged the harmonious working atmosphere of the organization according to rules and regulations. Second, companies should encourage fair competition, advocate teamwork, oppose circle culture and small cliquism, promote win-win cooperation, and foster a harmonious ethical atmosphere in the organization. Such practice will not only increase corporate cohesion, but also strengthen employees' sense of belonging and loyalty. The most important is that it can effectively prevent ostracism in the workplace. Thirdly, for those employees who have already been ostracized by the workplace, companies should implement programs of psychological assistance for employees in a timely manner, employ professional psychotherapists to offer psychological counseling and psychological treatment for the ostracized employees, help employees eliminate psychological concerns and doubts, and reorganize their identities in the organization. Furthermore, they should give employees care and recognition, reduce the psychological pressure on employees and help them out of the shadow of being ostracized as soon as possible.

Research limitations and outlook

Compared with other studies, this study has the advantage of rigor in research design. The paired sample design and multi-source data collection has effectively reduced the influence of common method variance and made the results more relevant to reality. However, it should also be noted that this study inevitably has certain limitations due to human and material constraints.

First, the problem of sample distribution. Due to the vast territory and limited research time and funds, the geographical distribution of samples was not very reasonable though the subjects of this study met the statistical requirements in terms of sample size. The sample data of this study is only from Guangxi, China. If the coverage of sample selection is larger, the research results obtained may be more persuasive. Future research can increase sample coverage and conduct cross-regional comparative analysis, which brings new research ideas to study of workplace ostracism.

Second, this study does not have a fine division of staff groups. In fact, different groups of people have different impact from counterproductive work behavior. The values of the new employees represented by the post-1980s generation and the post-1990s generation are significantly different from those of the old ones. These factors may influence



the emergence of counterproductive work behavior, which also remained to be verified. Future research can add the

counterproductive work behavior caused by differences in culture and values to the structural research framework.

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ROLE OF SOCIAL MESSAGING IN THE ORGANIZATIONAL CONTEXT

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Abstract

The adoption of social messaging applications, such as WhatsApp and LINE, has become the new approach for exchanging information in various contexts. In addition, social or instant messaging through mobile applications has become one of the most frequently used methods for communication for various organizations. An increasing number of users have adopted social messaging for work-related and leisure communication purposes owing to its low costs, fast delivery, and individual- and group-messaging benefits. The objective of this study is to explore the organizational (e.g., work flow) and personal (e.g., fun and entertaining) benefits of social messaging as a communication tool as well as its negative effects (e.g., misunderstandings and unclear messages). The scope of the study is the working environments of 4-star hotels. Semi-structured interviews are used for data collection, and content analysis is conducted to analyze the data. Results, discussions, limitations, and directions for further research are also provided.

Keywords: social messaging, communication, organizational and personal benefits

Introduction

Communication is one of the most important elements for business success. People can select from a variety of ways to send messages and information depending on their preferences; from face-to-face video calls to electronic mail. Presently, one of the most widely adopted communication methods is social messaging platforms where people can chat with individuals or groups of people, send pictures, make calls, and share files. According to Bode, Lassen, Kim, Shah, Fowler, Ridout, and Franz (2016), social media and social messaging have become highly popular in different dimensions, including in politics.

Furthermore, with its growing number of users, social messaging applications have become increasingly popular not just among friends or family but also among work colleagues for communicating work-related issues and other social matters (Moreno-Munoz, Bellido-Outeirino, Siano, & Gomez-Nieto, 2016). In addition, social messaging has been adopted by consumers to communicate with businesses (Ashraf, Hou, & Ahmad, 2018; Testa, Russo, Cornwell, McDonald, & Reich, 2018).

This new method of communication is expected to support the effectiveness and efficiency of workflow and aid information exchanges among colleagues at a very low cost. Moreover, Employees can expect a high degree of work productivity from the benefits of such applications. However, the main focus of this study is the advantages and disadvantages of adopting social messaging for organizational and personal purposes to gain an in-depth

understanding of such communication method.

The hotel industry is the context of the study because hotel businesses have one of the most diverse and complex working environments (Becker & Wang, 2016). Given its multidimensional aspects, hotel employees provide services such as housekeeping, sales and marketing, and front of the house operations for local and international guests. With hotels offering round-the-clock services, communication among the employees is the key to supporting working operations. Ladkin and Buhalis (2016) noted that using new communication technologies, including social media and social messaging, may help in facilitating numerous processes and in improving the quality of work. However, limited studies have been conducted on the benefits and limitations of this new technology in the hospitality sector. Therefore, this current study attempts to explore the use of social messaging applications from the perspectives of organizational and personal dimensions.

Additionally, guidelines and implications are provided for the improvement and development of employees and organizations in supporting the use social messaging in the workplace.

Literature review

Social messaging

Social messaging is defined as a messaging service based on systems other than SMS, MMS, or email and which have a social component, such as Facebook's chat feature (Mesch et al., 2012). In 2015, more than 20 social

messaging applications were available on Android and other mobile operating systems for smartphones (Walnycky, Baggili, Marrington, Moore, & Breitinger, 2015). Social messaging applications can be used through mobile phones, tablets, or computers and are tied to a social network, thus allowing people to stay connected in real time (Kim et al., 2012).

Social networks and social messaging applications provide platforms for users to connect and share content. However, a few differences exist between social networks and social messaging applications, including audience size, duration, and intent. Social messaging acts primarily as a one-to-one (or -few) communication mechanism, which can either be brief or long-lasting. The content of social messaging applications is intended to be private, or at least directed only toward a specific group. A social network, which consists of many-to-many connections, is durable and capable of producing network effects. When one uses a social network to publish information, it acts primarily as a many-to-many broadcasting mechanism, and the content of a social network is essentially public (Longo, 2014).

Currently, several mobile messaging applications have added social networking features to meet the growing demand for free mobile calling and SMS services. Various free mobile messaging services exist, including WhatsApp, WeChat, LINE, and Facebook Messenger.

Communication

People send and receive information to communicate and understand one

another, and several means exist to support effective communication, such as face-to-face interactions, telephone calls, or the use of other tools (Lundy & Drouin, 2016). Furthermore, communication between people in organizations, personal relationships, or politics or public information campaigns, leads to understanding and information flow among those involved in the process. Communication is generally defined as a process of sending, reviewing, and receiving messages to share meanings. Such a communication process can be found in numerous disciplines, ranging from psychology and sociology to engineering, technology, and artificial intelligence (Mumby, 2012).

Concepts in the communication process include the sender, the receiver, messages, feedback, encoding, decoding, and interference (Al-Fedaghi & Alsaqa, 2009). Feedback is the reaction of the receiver to the sender's message. Encoding is how the sender decides to send the messages based on predictions or prior knowledge on the receiver. Decoding is understanding the meaning of the message that was sent. Meanwhile, interference is the outside and inside influences affecting the communication process.

Social messaging

Smartphone and tablet users around the world have adopted mobile messaging applications as the primary means for communicating, thereby replacing or complementing traditional options, such as texting. The growth of mobile application usage has increased remarkably over the past several years



and is driven by messaging and social networking applications, including social media and photo sharing, which increase in year-over-year usage (Kimme Hea, 2014; Gillen & Merchant, 2013). A few of the most popular options in this category include Snapchat, WhatsApp, Facebook Messenger, WeChat, KakaoTalk, and LINE.

According to Marquez (2003) who conducted a survey on the usage of social messaging, almost three fourths of the samples indicated that likely gossiped on social messaging applications more than on any other communication tool (i.e., telephone). Furthermore, two thirds of the respondents also use social messaging applications to set up actual social events as well as to rant and complain. Other popular activities on social messaging applications include sending birthday greetings and flirting.

Growth of the adoption of social messaging in the workplace

Social messaging has slowly gained prominence in the workplace. Data revealed that a number of people use social messaging at work (Huang & Yen, 2003). In recent years, social messaging has gained in popularity in the workplace, and social technologies have reached mainstream adoption owing to a variety of available platforms (Hunt et al., 2014). Moreover, several companies have adopted social messaging or similar tools to promote interaction among employees (Longo, 2014).

Social messaging has numerous advantages. It connects people regardless of their location, and in a business

setting, social messaging boosts company performance by speeding up operations, responsiveness, and efficiency with minimal additional costs. Colleagues can send and reply to instant messages in real time without face-to-face interactions, and work reports and other files can be shared during chat sessions. Social messaging facilitates virtual conferences, which allow a person to connect, share ideas, and reach conclusions with multiple people, without requiring people to convene in a physical meeting room. People on business trips can contact coworkers in the office through social messaging, and staff members can communicate with customers and vendors around the world. In other words, people can now directly conduct business transactions through social messaging rather than using traditional methods, such as making phone calls or sending letters (Safko, 2010). Chen, Butler, and Liang (2018) noted that social messaging is used by people across cultures and generations. People belonging to different age groups adopt social messaging and integrate its usage in their everyday lives.

Additionally, social messaging has positive effects on geographically separated offices. Employees find it easier to contact colleagues in other locations through social messaging applications rather than making phone calls (Sarker and Wells, 2003; Goggin, 2006). Ogara et al., (2014) further noted that social messaging enhanced contact among remote employees, customers, and vendors compared with any other form of communication. Moreover, Qualman (2012) determined that social messaging has proven its overwhelming value in terms of gathering input from different people in dispersed locations.



Processes that were once agonizingly slow and prone to misunderstandings and errors can now be accomplished in real time.

Furthermore, social messaging has proven cost-saving benefits in certain situations, such as group discussions. Most social messaging applications support the participation of several people in one discussion, which is more affordable and convenient than setting up a telephone conference. Meetings conducted via social messaging applications also tend to be more efficient and less prone to off-topic discussions because of the relative ease of typing versus talking (Osterman Research, 2006). A study by the Radicati Group (2004) further showed that companies could save an average of 40 minutes a day by completing daily typical tasks with social messaging. Consequently, the group estimated that an organization with 5,000 people could save \$37.5 million a year in terms of communication expenses by adopting social messaging.

According to Longo (2014), social messaging is a multitasking tool for workers, meaning that people can engage in social messaging conversations while making a phone call or going through their e-mails. Ogara et al., (2014) noted that workplace use of social messaging features can eliminate numerous internal communication problems, such as e-mail clutter, voice mails, or office visits.

Social messaging naturally encourages people to be brief and concise. Employees using social messaging at work reported it as an important tool for enhancing productivity. A total of 68% of workplace social messaging users stated that while social messaging is a

mixed blessing, it is mostly a positive technology (Huang & Yen, 2003). Social messaging increases productivity by reducing time wasted switching between various communication methods, such as emails, phone calls, or voice mails (Mesch et al., 2012).

Effects or impacts of using social messaging

According to Kim et al., (2008) and Bowdon (2014), texting can affect social relationships, academic performance, and personal safety. While personal mobile phones have promoted a sense of perpetual access (in which people are available any time, day or night), social messaging exerts considerable pressure on people to always be available. The pressure to open a message when it is received, regardless of what is happening, is high. People often feel the need to answer their phones at any time, even when they are preoccupied with something else. Thus, it is not surprising that most jurisdictions have passed laws prohibiting the use of cell phones while driving, and numerous schools have demanded that mobile phones be turned off during classes and other school events. People have reported feeling disconnected when away from their mobile phones, even for relatively brief periods.

Texting behavior has been linked to measures of physiological arousal, such as increased heart rate, respiration, and muscle tension. One potential explanation for why frequent messaging can lead to healthcare problems is that the social messaging causes young people to remain in a constant state of arousal, thereby making it difficult to relax or

sleep. This condition may lead to a considerable static load over time because of the cumulative effects of constant stress (Leena, Tomi, & Arja, 2005).

Research methodology

The current study was exploratory and conducted in-depth, semi-structured interviews with 23 experienced representatives working in managerial positions in 4-star hotels in Bangkok. All the informants have been using social messaging applications for more than four years and are experienced in the application. The sample included respondents with a variety of working backgrounds, including sales and marketing, housekeeping, and front of house operations. A purposeful sampling approach was adopted, with three main criteria, including holding a managerial position, having more than 10 years experience working in the hotel sector, and using social messaging applications for more than four years.

Interviews were conducted in Thai by the lead author. Each interview lasted from 30 minutes to an hour. The interview questions were concentrated on three issues related to the characteristics of using social messaging, highlighting benefits and problems from their

experiences. The interview questions were pilot tested with five hotel staff members, and the questionnaire was further developed primarily by omitting unclear technical terms. The data were collected from the 23 respondents until saturation was reached.

Using the results from the interviews and documents, content analysis was adopted to identify the core themes and issues. Audio-recorded interviews provided solid references from the original source to identify potential issues, and the interviews were transcribed immediately after each session. Multiple analyses from researchers in different fields were adopted to avoid biases and to reinforce the findings.

Results

The sample consisted of experienced representatives with managerial positions in 4-star hotels in Thailand. The interviewees have been working in the hotel industry for more than 10 years with managerial positions in sales and marketing, housekeeping, and front of the house operations. This combination of diverse working backgrounds provided a broad perspective on hotel operations. Approximately half of the respondents were females, as shown in Table 1.

Table 1 Characteristics of interviewees

Respondents	Age (years)	Gender	Years working in hotel industry
Interviewee 1	40	Male	15
Interviewee 2	48	Male	17
Interviewee 3	36	Female	12
Interviewee 4	49	Female	24
Interviewee 5	39	Male	17
Interviewee 6	49	Female	25
Interviewee 7	50	Male	29
Interviewee 8	58	Female	30
Interviewee 9	49	Female	22
Interviewee 10	51	Female	26
Interviewee 11	40	Female	17
Interviewee 12	46	Female	17
Interviewee 13	47	Female	19
Interviewee 14	40	Male	16
Interviewee 15	55	Male	31
Interviewee 16	40	Male	17
Interviewee 17	50	Male	26
Interviewee 18	43	Male	19
Interviewee 19	39	Female	15
Interviewee 20	38	Male	16
Interviewee 21	44	Female	19
Interviewee 22	41	Male	15
Interviewee 23	50	Female	28

The results from the interviews provided useful information about the types of social messaging applications as well as their benefits and limitations. The most popular social messaging application indicated by the respondents was LINE, followed by Facebook Messenger and WhatsApp.

Convenience was the reason provided by most of the respondents for using social

messaging in the hotel industry. Special features, such as document, photo, and video sharing; voice messages, voice and video calls, and group chats, were included as reasons for using social messaging as the mode of communication over others modes (e.g., telephone calls and face-to-face communication).

According to one respondent, *“The reason I use it is because it is very fast and convenient. When I have to communicate with a group of people, it is easier to use LINE instead of having a group meeting”* (Interviewee 2).

Another informant said, *“I think it is fast and convenient for contacting and communicating with friends. Also, when some of my friends don’t have work at the same time as me, it is a lot easier to catch up with them via LINE. Plus, I can also send them a note, picture, or even voice messages with this application”* (Interviewee 14).

Another respondent stated that, *“The great benefit I have received from LINE and Facebook Messenger is convenience for group chatting and sharing photos. Sometimes with social messaging, you can keep track of what you or your friends have typed.”* (Interviewee 4).

Cost savings was another reason stated by the respondents for using social messaging because the Internet cost is already included in their mobile phone packages. At times, social messaging is free if done through Internet Wi-Fi.

According to one respondent, *“This way we can reach people in other countries faster, and it does not really cost that much compared to making international calls”* (Interviewee 21). Another respondent commented that, *“Social messaging is a type of communication that is convenient and saves you money as well because you can text and use LINE to call friends via the Internet”* (Interviewee 6).

Another responded expressed that, *“Social messaging is cheaper compared to making phone calls to one another*

because the Internet charge is included in the mobile package” (Interviewee 9).

The majority of the respondents reported close relationships as the personal benefit they experienced from social messaging because users can communicate with anyone anytime, and anywhere. Therefore, the respondents could maintain close connections with friends, families, and relatives in different locations.

One respondent opined that, *“Social messaging keeps you connected with the rest of the world, especially if you communicate with friends, family, and business colleagues who are abroad”* (Interviewee 23).

Another respondent commented that, *“Social messaging helps people talk more and have closer relationships. When I don’t have time to meet someone but I want to talk to him or her, I can just use LINE, and it is fun too”* (Interviewee 1).

According to another respondent, *“Social messaging created a strong relationship between me and my friends. It allows us to communicate with each other even though we are not together without having to call”* (Interviewee 8).

In terms of work-related benefits, better team communication was the most frequently indicated benefit because most social messaging applications support group chat functions. One respondent said that, *“It is good for teamwork when one or some members are not available for phone calls. Moreover, it gives everyone in the team a chance to share their own ideas and to brainstorm when we cannot have a face-to-face meetings”* (Interviewee 5).

One respondent also shared that, *“Social messaging helps me do group work well. It’s hard to communicate when there are a lot of people, and gathering a big group of people is difficult because sometime we don’t or hardly have a common free time. Therefore, social messaging helps a lot”* (Interviewee 13).

According to another respondent, *“It helps to communicate better with group members. There is no need to meet; therefore, it is very fast to get the message across. Moreover, this means that we can discuss work almost anytime during the day. It helps when you don’t want to meet someone but you need to talk to that person. You can just use LINE”* (Interviewee 17).

With regard to the negative impacts of social messaging in their personal lives, the majority of the respondents agreed that addiction was the most serious. Moreover, this negative impact was linked to work–life balance and social relationship problems because people tend to talk less to those around them and pay attention only to their phones. One comment from respondent was that, *“Addiction is a negative impact of social messaging because some people play or use social messaging too much or all the time and do not spend time talking to friends and relatives”* (Interviewee 20).

Several respondents also indicated health issues, particularly eye problems. As one respondent commented, *“I think using social messaging causes eye problems and also headaches. This is due to using your eyes all the time”* (Interviewee 3). In addition, a few respondents indicated that messages sent through social messaging applications are prone to misunderstandings. The reason for this miscommunication is because senders

cannot clearly express their feelings through texts, while receivers cannot feel the actual emotions of the senders.

Regarding the negative impacts of social messaging in the workplace, lack of clarity leading to misunderstandings was the most cited problem. One respondent stated that, *“Texting through social messaging sometimes affects clarity because words can be perceived in many ways that it could often be misunderstood”* (Interviewee 22). One respondent also commented that, *“Sometimes, using social messaging is not appropriate for crucial information because communicating via online application causes misunderstandings and is misleading”* (Interviewee 11).

Finally, the results of this study showed that the majority of the respondents intend to continue using social messaging in the future for a variety of reasons. A group of respondents stated that they would continue using social messaging in the future because of its convenience. According to one respondent, *“I will continue to use social messaging because it makes my life more convenient to connect with other people and to keep in touch with them”* (Interviewee 10). Another respondent commented, *“I will still use social messaging because it is more convenient than other modes of communication. Sometimes you cannot call your friends or they may not be available, but you can still leave a message for them”* (Interviewee 7). *“It is convenient and it is what everyone is using. If you do not use it, you can be left out of the group,”* (Interviewee 19).

Figure 1 shows the summary of the usage of social messaging applications, and the benefits and problems are categorized

according to personal or organizational dimensions. Social messaging benefits include cost savings, good workflow, virtual team communications, and fun. However, problems may arise from incomplete information or

misunderstandings of short messages. In terms of personal issues, users may experience eye fatigue or addiction from constantly using social messaging applications.

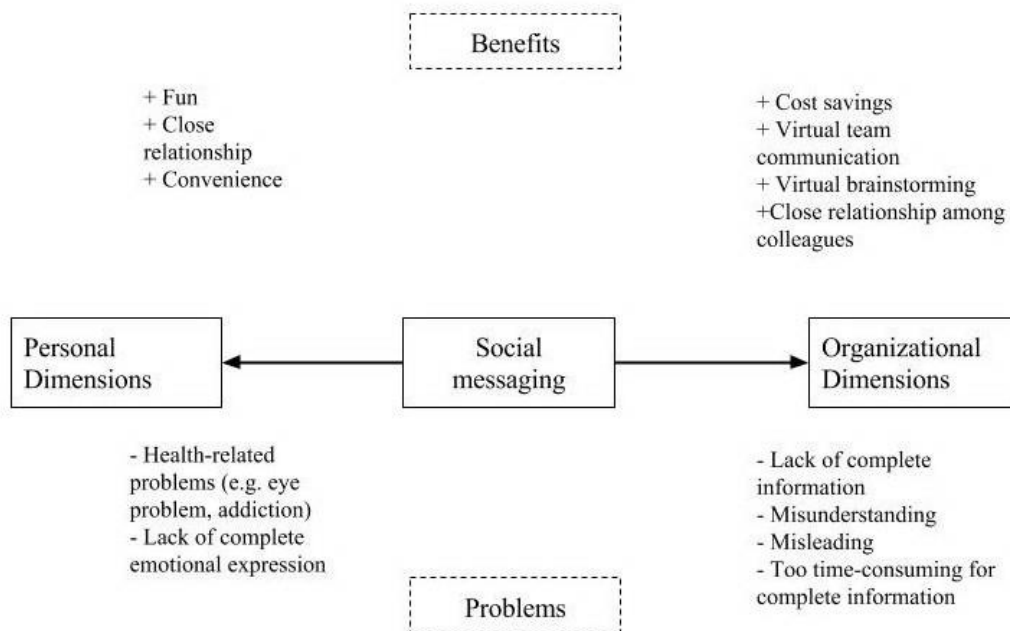


Figure 1 Social messaging benefits and problems in personal and organizational dimensions

Discussions

This study found convenience as the main reason most respondents used social messaging for communication. This result was supported by Lauricella and Kay (2013) and Bode et al. (2016) in their study on the use of text and instant messaging in higher education classrooms. The authors determined that key reasons for using text and instant messaging as modes of communication

include time savings, convenience, and ease of use.

Moreover, the respondents reported cost savings as another reason for using social messaging because Internet costs are already included in their mobile phone packages. In addition to strengthening relationships between dispersed teams, replacing phone calls with instant messaging could also save money. Hampton and Wellman (2002) noted that the cost of online contact does not vary

with distance. In comparison, physical distance increases the cost of face-to-face contact, resulting in a drop in communication frequency.

Close relationships were personal benefits that the majority of the respondents experienced from social messaging because they could communicate with anyone at their convenience (Ashraf, Hou, & Ahmad, 2018). Therefore, the respondents could stay connected with their friends, families, and relatives living in different locations. Safko (2010), Chen, Butler, and Liang (2018) and Walnycky et al. (2015) claimed that social messaging had numerous advantages because it allows people to connect with one another regardless of where they actually are. Moreover, a few respondents included fun and entertainment as other benefits of social messaging. The results of the present study are in line with those by Counts (2007) who found that for many people, group-based messaging on their mobile devices was an almost addictive new form of entertainment.

In terms of work-related benefits, better team communication was the most frequently cited by the respondents because most social messaging applications supported group chat functions. Furthermore, this study indicated that close relationships with colleagues were another work-related benefit because social messaging is easier than face-to-face communication; therefore, the respondents can talk frequently with their colleagues and become close to one another. Social messaging in the workplace promoted frequent communications while simultaneously reducing interruptions (Shen et al., 2011). Lam (2012)

investigated the impacts of text messaging services on social connectedness in student technical communication projects and found that students in social messaging groups communicated frequently and felt connected in their working relationship.

The respondents of this study also indicated health problems as negative impacts of social messaging. This result is in line with Leena, Tomi, and Arja (2005) who mentioned that texting behavior is linked to measures of physiological arousal, such as increased heart and respiratory rates as well as muscle tension. Moreover, a number of respondents mentioned that the use of social messaging could cause misunderstandings in message content because senders could not express their feelings through texts, while receivers could not clearly understand the actual emotions of the senders. Social messaging may be used to replace face-to-face communication; however, it cannot help people understand the emotional status of others (Sacco & Ismail, 2014).

With regard to work-related aspects, the respondents indicated lack of clarity leading to confusion and misunderstandings as a negative impact of social messaging. According to Huang and Yen (2003), social messaging encouraged users to be brief and concise. Hong et al. (2013) and Lundy and Drouin (2016) further claimed that texting reduced the ability of people to communicate clearly.

Furthermore, this present study showed that the lack of consistent flow in conversations was another work-related negative impact of social messaging. Hong et al. (2013) implied that

challenges experienced by organizations using social messaging as their main mode of communication include unclear or confusing messages and misunderstandings.

Regarding the continuous usage of social messaging, the present findings showed that the majority of the respondents plan to increasingly use social messaging in the future for a variety reasons, including convenience, ease of use, popularity among friends and colleagues, and usefulness. Text messaging has received increasing interests among users, and mobile messaging applications are becoming important platforms for other features such as video calls, file and content sharing, and money transfers (Lin, 2011; Kim et al., 2014)

Conclusion and recommendations

The adoption of social messaging for personal and organizational use is beneficial despite a few disadvantages that should be considered. In terms of the advantages, social messaging serves as an effective tool for communicating and sharing various forms of information, including texts, photos, and videos. In addition, social messaging enhances workplace productivity. However, social messaging can cause personal health issues and is prone to misunderstandings owing to the transmission of unclear information in the work place.

This study includes several managerial implications. First, aside from cost savings and ease of use, organizations can enhance the benefits of social messaging by adopting it as an official mode of communication. Second, the hotels can create several groups in social messaging application platforms to benefit from formal and informal communications. Third, working relationships among team members can be improved by frequent communications. Fourth, despite of the benefits of social messaging in personal and organizational dimensions, users should be concerned with its health aspect to avoid addiction or other problems.

This study has a few limitations. First, interviews were the only source of data; therefore a quantitative method is recommended for future studies. Second, the informants were selected from hotels in Bangkok. Therefore, the findings may not be generalized for Thailand and beneficial only to future research related to social messaging and communication strategies in such organizations.

Directions for future research include further in-depth investigations on the work–life balance of social messaging application users and on other types of working environments. The authors of the current study only focus on the hospitality industry. Thus, broadening the scope of the study could help enhance its practical contributions.

MARKETING STRATEGIES AFFECTING CHINESE TOURISTS' DECISION MAKING AND LOYALTY TOWARD MEDICAL AND WELLNESS TOURISM IN THAILAND

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Abstract

Research in the demands of tourist needs and marketing strategies on the impact of decision making of Chinese tourists towards medical and wellness tourism will be very beneficial. The purposes of this research were to (1) explore personal factors, travel behavior, and the demand of Chinese tourists for medical and wellness tourism (health tourism) in Thailand; (2) to analyze the influence of service marketing mix has on Chinese tourists when choosing their health tourism services; (3) to analyze the influence of service marketing mix factors on Chinese tourists' loyalty towards health tourism in Thailand. This research was quantitative research, which included a sample of 400 Chinese tourists. This research use a stratified sampling technique in which a survey will be conducted. The data were collected by questionnaires. The statistics used in the research were descriptive statistics and testing the hypothesis by a multiple regression analysis. The research found that (1) the majority of Chinese medical tourists were women between the ages of 26-30 years old, worked at private companies, had a bachelor's degree, and earned an income of 50,001-100,000 baht/month. For the most part, Chinese tourists use health services such as spas and massages. Information was given to the tourists via hotel employees, friends and family as well as online forums, tour companies, magazines, travel websites, and travel books. There was a high demand for general health, health screening, operations, cure of diseases, dental work, plastic surgery and health promotion by using traditional medicine, alternative medicine, anti-aging and medical spa. (2) there were 6 marketing factors of the variables, which were product elements, people, physical environment, price and other user outlays,

promotion and education and service process had influence on the level of Chinese tourists' decision making on health tourism in Thailand with predicted ratio 86.7 % ($R^2=0.867$) (3). The marketing factors of product elements, productivity and quality, people and promotion and education had influence on the level of Chinese tourists' Loyalty on health tourism in Thailand with predicted ratio 88.3% ($R^2=0.883$). Therefore, Entrepreneurs of the medical and health tourism industry should focus on marketing strategies that influence the decision making and loyalty of Chinese tourists. This includes business planning, strategies, practices leading to marketing success and loyalty.

Keywords: marketing strategy, decision making, tourists' Loyalty, Chinese tourists, medical and wellness tourism

Introduction

Medical and wellness tourism (health tourism) in Thailand is a new emerging style of tourism that is becoming popular with many travelers all around the world. Health Tourism has been divided into two sections; Medical tourism and wellness tourism. During the first quarter of 2016, there were 1.2 million individuals who traveled to Thailand for medical tourism, which is the highest it's ever been in the world leading to 100 billion dollar contribution for the economy. Not only does Thailand's health standards offer superior service, it also offers advanced modern technology, and qualified professionals equal to Singapore standards. Thailand's medical health industry is world renowned and is as inexpensive as India (Leelawatananun, 2016).

Chinese tourists are starting to spend more money and invest in themselves, which is something to be interested in.

Thailand and South Korea are the main competitors when it comes to medical and wellness tourism in Asia, especially in cosmetic surgery. Unfortunately during the past year, South Korea has been confronted with problems regarding the quality of services provided and also the qualifications of the business and doctors offering these services. This has impacted Chinese tourist's decision making and an increase in the Thai medical and wellness tourism (Ackarapun, 2017).

Today, Chinese tourists have used a tour agencies for their medical and wellness travels, this research was conducted by the EIC (Economic Intelligence Center). The Siam Commercial Bank found that in 2016 Chinese tourists made up 7.9million of the total tourist economy in Thailand. That is a 71% increase from the past year. Chinese tourists also have more spending power from 4,425 baht per day in 2010 to 5,748 baht per day in 2015 (Marketeer, 2017).

This has impacted the tourism industry in many other aspects as it is very sensitive to various influences from inside and outside Thailand. To cope with these influences, policies and standards need to be set up in order to maintain a standard of reliability in the Thai medical and wellness tourism. In the past, there have been problems involving the way businesses are conducted and the impact it had on standards of health and quality. By increasing standards of services provided, health and wellness businesses also increase the ability to compete and also hold themselves to a higher reputation.

The literature review, Previous Related research on marketing strategies affects the decision making of tourists and Loyalty of Tourists, This research indicates that marketing strategies; promotions, product elements, concerning the quality and availability to a customer influenced the decision to use tourist services and behavioral intention. In addition, the concept of service marketing strategies, research by Lovelock and Wirtz (2007), They found the 8 P's included: (1) product elements, (2) place and time, (3) promotion and education on the product, (4) price and other outlays, (5) physical environment, (6) process (7) people, and (8) productivity and service Quality are the key to building a loyal of customer. Thus, research in the demands of tourist needs and service marketing strategies on the impact of decision making of Chinese tourists towards medical and wellness tourism will be very beneficial.

Objectives

- 1) To investigate personal factors, travel behaviors, demand, marketing factors, decision making and loyalty of Chinese tourists towards the Thai medical and wellness tourism.
- 2) To research marketing strategy that impact the decision making of Chinese tourists towards medical and wellness tourism in Thailand.
- 3) To research marketing strategy that impacts the loyalty of Chinese tourists towards the medical and wellness tourism Thailand.

Concept, theories and related research

This research applies the following concepts:

The first concept is health tourism; this concept can be broken down into two different categories which include the focus points of tourists and their needs. (1) Health screening tourism (Health Promotion Tourism) for example, massages spa, herbal wraps, aroma therapy and water therapy, meditation, and other wellness factors such as health foods. (2) Health healing tourism; these programs are designed to help cure diseases and rehabilitation such as dental work and plastic surgery. These are the reasons why tourists use hospitals and qualified health facilities for their health needs (Department of International Health, 2010).

The second concept is tourist behavior, based on an analytical study by Kotler (2000) included 6W1H was used to evaluate tourist behaviors; (1) characteristics of the purpose of these tourists, (2) the needs of the tourists, (3) The purposes of the travel, (4) individuals involved in decision making, (5) opportunities to travel, (6) how tourists select their type of travel, (7) types of products for travel, (8) types of activities encouraging tourism, (9) price range of accommodations, (10) information outlets for tourists, (11) average budget for one day per person.

The third concept is marketing strategy, research by Lovelock and Wirtz (2007), They found the 8 P's included: (1) every part that makes up a product (product elements), concerning the quality and availability to a customer, elements that comprised products that are used, such as quality ingredients and how they were sourced; (2) place and time, convenience and readiness of the service provided for customers, When a customer is making a decision in the product, the place and time are very important, financially and emotionally. The satisfaction of having a quality product delivered when it is needed is important as well; (3) promotion and education on the product, promotion and education of the product provided to the customer for a better understanding; (4) price and budget of the individual who is receiving the service; (5) physical environment of each tourist destination, exemplifying the quality and overall look and feel; (6) the process in which the product is built and delivered to the customer; (7) people are

very important in the delivery of the product as well as the presentation, ie. Quality training and good personal hygiene; (8) productivity and service Quality; the quality of service that is provided for customers is key to building a loyal fan base as well as customer satisfaction.

The fourth concept deals with customer loyalty. Research done by Oliver (1999, p. 33-34) explained that to measure the level of loyalty, and to build a fan base, it must meet all the needs of the customer down to the small details of service. Three steps to meet these demands including; (1) satisfaction with brand elements, i.e. the brand signifies quality and a level of consistent satisfaction; (2) satisfaction from the customer; (3) the willingness to promote and buy the product. Attitudinally loyal means that one feels positive about the brand, where as behavioral loyalty means that the person shops at the same place regularly. To measure customer loyalty to a business involves the attitude of the tourist/customer, which also includes a pattern of tourist decision making or repeat travel behavior. These will help maintain and increase the market share of repeat tourists.

Research on service marketing strategies affects the decision making of tourists

Research conducted by Juntapukon and Songruksa (2013), found that marketing strategy related to public relations

through social media, promotions, community organizations and tourist activities have greatly influenced the decision to use certain tourist services. Srisomyung (2016) concluded that strengths in health tourism include qualifications of health care professionals and standards of services provided. More negotiating power is given to the customer for their healthcare travel needs because more health facilities are opening, thus more competition. Public relations for these services are most important in order to fulfill specific needs of the customer. In order to promote their business and reach out to more customers, an outlet like Facebook is utilized. It is very important to build prestige especially in the healthcare service industry in order to have a loyal following. Lee, Petrick, & Crompton (2007) found that product elements, concerning the quality and availability to a customer influenced the decision to use tourist services and behavioral intention

This research indicates that strategic marketing has a big impact on the decision making of tourists, thus hypothesizing (H_1) that marketing strategies affect the decision making of Chinese tourists towards medical and wellness tourism in Thailand.

Research on service marketing strategies related to the loyalty of tourists

Rust and Chung (2006) researched “marketing models of service and

relationships” founded that marketing strategies in the hospitality industry, service management, and individual customer management, has an impact on the satisfaction and relationship with the customer. Leading to a loyal following and referrals (He & Song, 2009) Quality perception affects repeat behavior, thus leading to customer satisfaction. Hui, Wan and Ho (2007), found that activities that promote tourism involving food and accommodations greatly contribute to the overall satisfaction of customers. Allowing them to tell their friends and family and continue to come back and use these services with no concern on inflation or price change. Zabkar et al., (2009), found that the outlook and perceived quality of tourist attractions/destinations predicts the behavior of tourists, including friendliness of the local people, variety, quality of accommodations and services. Ladhari (2009), found that service quality had relationship with emotional satisfaction of customer and behavioral intentions. Meng and colleges (2008), found that the quality of accommodations and services leads to overall customer satisfaction leading to repeated habits of tourists. Overall customer satisfaction also includes positive feelings and attitude towards the quality of the overall services (Lee, Lee, & Yoo, 2000). The results support the hypothesis that service marketing strategies affect tourist loyalty. This is measured by repeat behavior and intentions. Thus, researchers need to consider 2 (H_2): Marketing strategies affects Chinese tourist loyalty to medial tourism and health in Thailand.

Research framework

Researchers have set a framework to conduct research, as shown in figure 1.

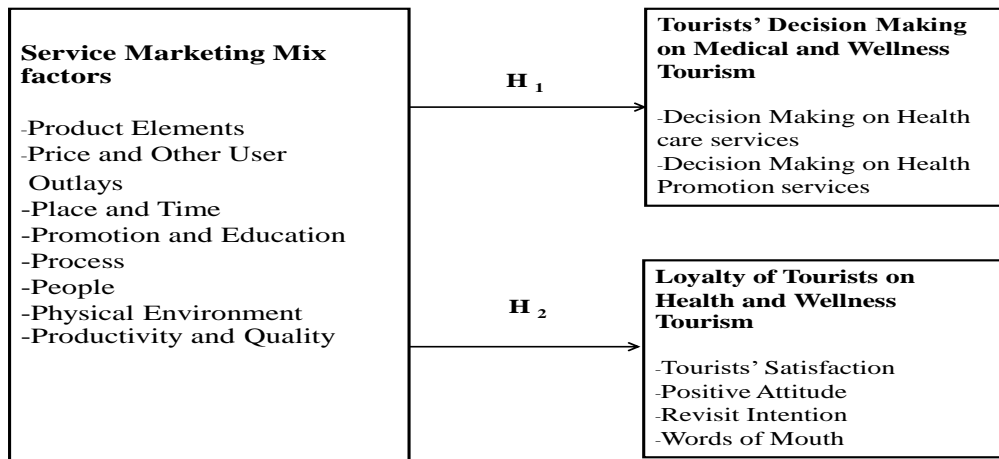


Figure 1 Conceptual framework to conduct research

Methodology

This research uses the quantitative method, sampling 400 Chinese tourists who used to travel to Thailand for medical and health tourism from March-April of 2017. Using a sample table created by Krejcie and Morgan (1970). This method uses a 95% confidence level. This research use a stratified sampling technique and systematic random sampling in which a survey will be conducted.

Data is collected using a questionnaire, the quality of the questions was tested by content validity. Identification of

Concepts (IOC) was more than 0.66 with 70 questions, and an adjustment of 13 questions were made for reliability using the reliability coefficient test, Alpha Coefficient from Cronbach the whole questionnaire was 0.96. The data analysis and statistics used in the research were descriptive statistics, containing frequency values and percentages to describe personal factors and behaviors of tourists. This consists of the mean and standard deviation to explain the needs of Chinese tourist health tourism needs. The Hypothesis was tested by statistical analysis, and multiple regression analysis.

Results

Part 1 Results of survey involving Chinese tourists and their demands and travel behaviors

Personal factors involved with Chinese health tourism sample were mostly female (72.6%), with an age range of 26-30 years (29.4%), they worked in private enterprises (37.9%), with a bachelor's degree (53.2%), and an income of 50,001-100,000 baht/month (50.1%).

The Tourist behavior of Chinese tourists for medial and wellness tourism for health purposes made up of 47.7% of overall tourists. 32.7% traveled for spas/messages for health purposes, 37.6 of these facilities were spa or rehabilitation facilities related to health. 48.1% stayed for more than 3-4days,

41.9% traveled with friends, 58.1% traveled to Thailand solely for health purposes. Supporting travel services consist of hotels/resorts, restaurants, souvenir shops, malls, golf courses, and travel agencies. Hotels made up of 62.6% of the destinations, ranging from 3000 baht/night (54.8%), and services provided were less than 50,000baht (54.8%). Information sources about Thailand's medical and health tourism is usually provided by employees, friends, relatives, social media outlets such as Facebook, twitter, blogs, travel agencies, brochures, travel websites and travel guides.

The data of demands of health services for tourists on medical tourism and health, is presented as a mean (\bar{x}) and standard deviation (SD), split into 5 ratings (Pisanboth, 2010)

Average rating	Definition
0.01-1.80	Least needed
1.81-2.60	Somewhat needed
2.61-3.40	Average needed
3.41-4.20	Very much needed
4.21-5.00	Most needed

Table 1 Mean (\bar{x}) and Standard Deviation (SD) of health service demands of tourists.

The Demands of health services of tourists	Tourists		
	mean	SD	Degree of needs
Health care service requirements			
Demand for disease treatment	3.63	.875	Very Much
Demand for surgeries for disease	3.38	.930	average
Demand for cosmetic surgery	3.32	.940	average
Demand for dental health care	3.34	.981	average
Average demand for health care services	3.41	.827	Very much
Health promotion needs for health care			
Demand for health checkups	3.30	.998	average
Demand for beauty services such as Botox and laser treatments	3.23	.944	average
Demand for Thai traditional medicine such as massages and aromatherapy	3.47	.942	Very much
Demand for spa services	3.20	1.008	average
Demand for alternative medicine such as hydrotherapy, acupuncture and health detox	3.28	.946	average
Average demand for health promotion	3.29	.830	average
Average demand for health services as a whole	3.35	.802	average

As seen in table 1, the results of the survey show the needs of health services of Chinese tourists towards medical tourism and health. The sample of tourists has a moderate need for health care promotion (\bar{x} =3.35). There was a high demand for health care services in medical needs (\bar{x} =3.41), the highest demand for tourist needs is health screening and checkups (\bar{x} =3.63). The demands for surgery treating disease was also pretty high (\bar{x} =3.38). Demand for dental services was moderate (\bar{x} =3.34), and plastic surgery (\bar{x} =3.32), respectively.

Considering the needs for health promotion services, the average sample was moderate (\bar{x} =3.29), there is a high demand for traditional Thai medicine, such as Thai message (\bar{x} =3.47), followed by a moderate demand for health checkups (\bar{x} =3.30). Alternative medicine

such as hydrotherapy, acupuncture, and health detox had a moderate demand (\bar{x} =3.28), Beauty services, such as laser treatments and Botox had a low demand averaging at (\bar{x} =3.23) and health spa services had a moderate demand (\bar{x} =3.20) respectively.

Part 2 Analysis of mixed marketing factors affecting decision making of Chinese tourists on health and wellness tourism in Thailand

The first hypothesis was tested and found that marketing factors on human resources, physical environment, price, and communications all greatly influence positive decision making on health services. The prediction ratio in Chinese tourist's decision making was 86.7 %.

Table 2 Analysis of regression of marketing factors and decision making of medial tourism and health services as a whole.

Variable	Regression Coefficient (b)	t	Sig.	Multicollinearity Indicator	
				Tolerance	VIF
Constant	.264	4.362	.000		
Marketing Communications	.126*	2.460	.014	.112	8.966
Personal	.202**	5.542	.000	.192	5.195
Product	.203**	4.620	.000	.146	6.833
Physical Environment	.175**	4.290	.000	.150	6.650
Price	.139**	3.081	.002	.127	7.885
Process	.086*	2.063	.040	.169	5.913

$R^2 = 0.865$, $SEE = 0.29565$, $F = 480.380$, $Sig. of F = .000$, * $p < .05$ ** $p < .01$

From figure number 2, the researcher selects regression analysis by a stepwise method. Result analysis found independent variables including marketing communication, staff, the product, physical environment, price and process. These variables are able to explain a variation of variable (an overview of a level of decision making on health service) to 86.7 % from the 8 variables is in positive way to decision making for choose service. With the product variable have a significance of 0.203 followed by staff with a significance of 0.202, physical environment had a significance of 0.175, price had a significance of 0.139, marking communication had a significance of 0.126 and process had a significance of 0.086. The unexplained variables, tolerance had a significance higher than 0.19 (Phetrot et al., 2004) and the IVF was less than 5.3. The independent variables didn't not interfere with one another.

The analysis can be written in as a linear equation as follow: an overview of a decision making on health service = $0.237 + 0.203 \text{ product} + 0.202 \text{ Personal} + 0.175 \text{ physical environment} + 0.139 \text{ price} + 0.126 \text{ marketing communication} + 0.086 \text{ process}$.

Part 3 Analysis of mixed marketing factors affecting the degree of loyalty of tourists on health and wellness tourism in Thailand

The second hypothesis was tested and found that marketing factors on product, efficiency, service quality, staff and marketing communications all greatly influence positive decision making on the degree of loyalty of tourists was 88.3%.

Table 3 Analysis of regression of marketing factors and the degree of loyalty of tourists on health and wellness tourism in Thailand.

Variable	Regression Coefficient (b)	t	Sig.	Multicollinearity Indicator	
				Tolerance	VIF
Constant	.237	4.134	.000		
Marketing Communications	.124**	2.638	.009	.113	8.880
Productivity and Service Quality	.195**	4.795	.000	.143	7.013
Product	.200**	5.037	.000	.146	6.833
Physical Environment	.175**	4.290	.000	.152	6.560
Personal	.160**	4.643	.000	.184	5.440
<i>R² = 0.883, SEE = 0.27150, F = 474.426, Sig. of F = .000, * p<.05 ** p<.01</i>					

From figure number 3, this research used four independent variables including marketing communications, performance and service quality, the product, and staff. These variables are able to explain customer loyalty to 88.3% from the 8 variables with the product variable have a significance of 0.20 followed by performance and quality with a significance of 0.1965, staff had a significance of 0.160, and marketing communication had a significance of 0.124. The unexplained variables, tolerance had a significance higher than 0.19 (Phetrot et al., 2004). The VIF value was less than 5.3. The independent variables didn't not interfere with one another. In conclusion, the analysis can be written in as a linear equation as follows:

The degree of loyalty of tourists = 0.237 + 0.200 product + 0.195 productivity and quality + 0.160 personal + 0.124 marketing communication.

Conclusion and discussion

The hypothesis test results concluded that product marketing, personal, physical environment, price, market communication and process all influence decision making towards medical and healthcare services. Based on the research involving marketing factors, products, staff, physical environment, and the process positively influences decision making in medical and health care services. The results are consistent with the service marketing concept of Lovelock and Wirtz (2007). This concept discusses marketing strategies in service management, integrated services, or integrated services business consider as marketing tools to satisfy customer loyalty, and motivate them to choose specific services or products. The results of the research were consistent with the results of research done by Srisomyong (2016). Marketing strategies is a tool for promotion especially referrals, via social media. In terms of service management

for health travelers, this greatly impacts the reputation and value of the business (Juntapukon & Songruksa, 2013). Marketing strategy, public relations, various media outlets, including marketing promotions and organization activities have influenced the decision making of services for tourists.

The results from this research involving Chinese tourists, gives importance to products the most. Research involving products used by tourists for travel greatly influences the decision making by Chinese tourist for health and wellness tourism in Thailand. With lots to choice from, this attracts and influences Chinese tourists to use health and wellness services. There is a high demand for health care services including, surgical treatment, dental services, and traditional Thai medicine (Kotler & Armstrong, 2010). Product value management needs to meet the demands of the consumer and convey the quality of the product, enhancing customer satisfaction. The results of the research are related to the research conducted by Lee, Petrick, & Crompton (2007) product elements, concerning the quality and availability to a customer influenced the decision to use tourist services and behavioral intention.

Personnel and staff also have a great significance in the decision making of Chinese tourist when choosing services. Quality training and specialized knowledge should be implemented to all personnel of health and wellness, insuring quality service to customers.

Physical environment is also an important factor in the decision making of Chinese tourist when choosing health and wellness services. When choosing a facility, tourist tend to look at

cleanliness, parking and seating for maximum convenience.

Price of services, the sample group of Chinese tourists give importance to the goods and services the most while traveling (Kotter & Armstrong, 2010). The overall cost of services and value is considered by the tourists when evaluating the price of services, customer-perceived value (Lovelock & Wirtz, 2007). The customer's perception of value put upon the services and goods is derived from the total cost estimate by the customer (total customer cost) compared to the total benefits received by the costumers. Parasuraman et al. (1985), points out the view of service quality in the eyes of the customer, the level of quality should be appropriate to the satisfaction of the customer. Even if the service is excellent, if the cost is too expensive, customers may deem it at a lower quality (Rust & Oliver, 1994). This contradicts research done by Hui, Wan and Ho (2007), which concluded that the price has no correlation with customer satisfaction.

Marketing communication founded that Chinese tourists focus on referrals the most before deciding to travel for health and wellness purposes. This is followed by travel media, web advertisements, and e-mails. The research results are consistent with mixed marketing (Kotter & Armstrong, 2010). In marketing communications, customers look at clear communication, two-way communication for more information, and feedback in order to make in order to make the travel industry more receptive. The results of the research are related to the research conducted by Srisomyong (2016). Marketing strategy from promoting marketing with public

relations is a great tool for promoting a business. Social media outlets are the best to reach out to a bigger group of people. Service management for health and wellness tourism is important in creating value and a reputation for a business (Chantapakul, & Sangruksa, 2013). Public relations via social media, promotes proactive marketing in the community and tourists activities. Marketing factors in production and quality have no positive influence on the decision making of tourists towards the health and wellness tourism. The quality of service provided leads to the level of satisfaction of the tourists, which intern leads to the development of long-term relationships leading to the loyalty of the customer. The final decision made by the tourist for health and wellness services is up to the level/standard of service quality perceived by the tourist. The evaluation of service quality is harder to deliver than product quality because not only is the outcome of service measured, but also the delivery of services as well.

Findings from hypothesis 2 test holds true that product marketing in the efficiency and quality of staff services and communication have a positive influence on the loyalty of tourists.

Tourist loyalty towards health and wellness tourism in the sample group was satisfied with the quality of services provided by the health care facility (treatment room etc.) The highest level of satisfaction correlated with the service value compared to the service price. A positive attitude toward health and wellness tourism is beneficial to the customers.

The intentions to repeatedly use the services from experience tourists is much

higher. Facilities with new locations that have never been used can benefit from referrals and experienced tourists, since there is already a reputation to the brand name. Returning customers can recommend these services to family and friends for medical tourism.

Based on this research product marketing, efficiency and quality of staff services and marketing communication have a positive influence on the loyalty of tourists with results consistent of the mixed marketing concept by Lovelock & Wirtz (2007). Marketing strategies and services in marketing management must be put into consideration as marketing tools to satisfy customer loyalty and motive customers to choose specific services or goods, these research findings are consistent with Rust and Chung's (2006).

Service marketing strategies affect customer satisfaction and returning customer relationships. Research done on Chinese tourists concluded that they give importance to products the most. Travel products are the most important factor influencing Chinese tourists' loyalty to health and wellness tourism in Thailand. Tourists give a higher importance to product services that have to do with programs involving healthcare services with lots of variety the most. Health checkup and alternative medicine services are more popular than beauty services. The results are constant with the production concept by Kotler and Armstrong (2010), stating that the value placed upon a product must meet the demands of the consumer and convey the quality of the product and also enhance customer satisfaction.

Performance and quality of service are important factors that tourist loyalty

depends on. Research results are consistent with the research results by He and Song (2009), who founded that the quality of information greatly impacts the overall satisfaction and the repeated behaviors of customers. Overall customer satisfaction also includes positive feelings and attitude towards the quality of the overall services (Lee, Lee, & Yoo, 2000). The service quality had relationship with emotional satisfaction of customer and behavioral intentions (Ladhari, 2009). Hui, Wan and Ho (2007) found that activities that promote tourism involving accommodations and food have an impact on the overall satisfaction of tourists leading to referrals of friends and family. Intent to return to the same accommodations is not influenced by price, but the overall satisfaction of the consumer (Zabkar et al., 2009).

Perceived quality of tourist attractions and customer satisfaction affect the predicted behavioral intentions of tourists. Tourist attractions include friendliness of local people, variety of attractions, and the quality of accommodations. Service is positively correlated with perceived quality of services, customer satisfaction and behavior of tourists. Meng et al. (2008) found that the quality of accommodations and services affects the overall satisfaction of customers and repeat behavior.

Research suggestion

Suggestions for actions and implementation of research findings

Business operators in health tourism should focus on developing marketing strategies to build Chinese tourists' loyalty towards medical and health tourism by targeting specific group of tourists based on their demands. Tourist objectives and demands for health services.

Using service marketing strategy to build Chinese tourist loyalty towards medical and health tourism consist of 2 concepts; marketing factors and quality of activities supporting tourism. Marketing factors should focus on four components: (1) product elements, (2) the product itself and quality, (3) staff, (4) marketing that promotes information and education or marketing communication.

1) Tourism product strategy should focus on service needs and health services. Health promotion such as Thai traditional medicine such as massages and followed by health examination and alternative medicine services. Health care services requirements.

2) Productivity and service quality emphasis on the quality of management of health care facilities including clean, beautiful, modern, fast-paced and attentive care facilities. Tourism support services should focus on quality management of accommodations, restaurants, and travel agencies. Hotels should have quality assurance of good service and standards such as room service.

3) Service personnel or staff members should give importance to the medical team and the general health team and

should have training and knowledge in their specific field. They should give services with a positive attitude and a smile on their face. Services should be provided at a certain standard of quality.

4) Promoting marketing and educating customers should be available. Strategic marketing should make use of ads, brochures and travel magazines. Marketing communication via websites, advertisements and e-mail. Promotional booths and events should offer travel packages. Promoting marketing should give importance to accommodations, restaurants, agency relations, giving special privileges such as discount travel packages, and value added services to customers, such as gift certificates, discounts, restaurant services hotels and shopping centers.

Limitations and further research future research implications

Limitation From the study of “Marketing Strategies Affecting Chinese Tourists’ Decision Making and Loyalty toward Medical and Wellness Tourism in Thailand”

It appears that the limitation has been issued as: The sampling groups come

from various backgrounds, which may cause an effect on the questionnaires. Some respondents understand the questionnaires and some respondents needed more explanations. All of these may impact on the accuracy of the answer given.

Future research implications

Firstly, this research only focuses on some main variables (marketing mix) relating to decision making of Chinese tourists and customer loyalty. There might be other variables influence on customer decision making and customer loyalty. Therefore, future researcher may investigate more variables relating to customer decision making and customer loyalty towards medical and wellness tourism to deeply understand in order to fulfill specific needs of the tourists. Secondly, this research only focuses on the cross section study. Therefore, the next research for the person who is interested in this issue can focus on the demands of Chinese tourists for medical and wellness tourism in each period in order to developing marketing strategies to build Chinese tourists’ loyalty by targeting specific group of tourists based on their demands.



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EXPLORING THE RELATIONSHIPS OF GREEN HUMAN RESOURCES MANAGEMENT (GHRM) AND OUTCOMES OF GREEN SUPPLY CHAIN MANAGEMENT (GSCM): EMPIRICAL EVIDENCE FROM RESOURCE-ORIENTED COMPANIES IN NANNING, CHINA

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Abstract

Purpose - The purpose of this research was to investigate the relationships between green human resources management (GHRM) and Green supply chain management (GSCM) and Companies' performances (CP). This aims primarily at enhancing companies' environmental and operational performances in resources-oriented industry of Nanning, China. In order to investigate this specific adoption of GSCM, the research model was conceptualized concerning the extant literature of GHRM and GSCM.

Design/methodology/approach- The questionnaire survey instrument was developed for archiving objectives of this research. The questionnaire was purposefully distributed to the companies that adopted GSCM practices in Nanning city of China, In total, 453 questionnaires were completed. EFA and CFA method were conducted to tested the validity and reliability of data and measurement models. SEM (Structural equation modeling) method was used to investigate and test hypotheses proposed in the research conceptual model.

Findings - The statistical results indicate the positive relationships between green human resources management (GHRM) and green supply chain management (GSCM) practices. The findings suggested that resources-oriented companies that adopted GSCM tend to help them improve both environmental and operational performances.

Research limitation/Practical implications –The results of this research are limited by the specific group of resources-oriented industry in Nanning city in China. Based on the findings resulted from this study, companies and regulators in Nanning city can understand more about GHRM and GSCM, which can help enhance the operational performances and environment performances of companies.

Originality/value - This paper suggested that resources-oriented company should implement green human resources management (GHRM) to enhance green supply chain management (GSCM) practices implementation. This can improve the environmental and operational performances of company. This paper therefore provides good approach for companies intended to adopt GHRM for eliminating pollution and improving operational performance. The originality of this research is to investigate the relationships of GHRM and GSCM using questionnaire survey gathered in resource-oriented companies in Nanning city in China.

Keywords: Green human resources management (GHRM), Green supply chain management (GSCM), Environmental performances, Operational performances, China resources-oriented company

Introduction

Why we need green concept, because it can support companies and business sustain in the long run and prepare the resources for next generation. The traditional human resources management and tradition supply chain management are all required for green design in recent years, even more and more survey institution and scholars had proposed further study of both subject, and introduce the concept of green human resources management and green supply chain management, First time indicate by Renwick et al., (2013, 2008), but this kind of studies still insufficient, especially the combination of two subject and also the outcomes of the integration of green human resources management and green supply chain management, thus, study this two subject combination is good for operation and human

management development. Jabbour, (2013) is the first scholar who point out that the necessary of this combination study, Because Green supply chain management can improve the environmental and operational performances of company, and the participant of green human resources management will also can enhance the GSCM implementation, thus, the combination of this two variables can let company gain a better results in performances, such as reduce the scrap rate and harmful materials or improve the capacity utilization in production process. Under this background, this research decide to find out the relationship between GHRM and GSCM and also the most important human resources practices for green supply chain management performances.

When the traditional human resources management consider about the adoption

of green practices design, it will become GHRM (green human resources management), the same, for GSCM (green supply chain management), it also require the general supply chain management link to the green development. The integration theory above are point out by Sarkis, (2012). The green notion, it means eliminate the negative effects on environment.

Even more and more scholars contribute to human resources management and supply chain practices, such as Lengnick-Hall et al., (2013), but the advances study of these two subject are totally separate, it means have few scholars link them together and explore the outcomes.

Resources-oriented enterprises are very special in NANNING, China. Their producing model is based on the exploitation and primary processing of natural resources, and the major competitive strength of them just comes from theirs monopolization of resources. Wang Fang, (2013). Obviously, the green supply-chain management of this kind of companies has some special characteristics which different from other kinds of companies in China. Due to the special features of Chinese Resources-oriented companies, so the absence of green supply-chain practice of this kinds of companies are more serious and importance. On the other hand, all of the supply chain design and implementation have to depend on the support of human resources, because employee can directly change the performances. Thus, when

the green human resources can match the green supply chain management, companies outcomes will improve a lot. The research objective of this article aim at investigating the relationship between GHRM and GSCM performances of resources-oriented company.

Thus, the objectives of this study have 3 points, can list as follows: 1. What is the relationship between GHRM and GSCM in resources-oriented industry in Nanning, China? 2. How GSCM practices affect companies performances, it is positives or negatives or even irrelevant ? 3. what is the mediation effects among GHRM, GSCM and companies' performances ?

Literature review and hypotheses

Resources- oriented company in Nanning, China

Nanning is the capital city of Guangxi Zhuang Autonomous Region which locate in southern part of China, The host city of "ASEAN EXPO", Because of the conveniences of transportation, Nanning city is the policy, cultural, Financial and international trade center of Guangxi province, thus, ASEAN countries is the most important business partner for Nanning city, Analyzing the sustainability and environment protection in Nanning city is very significant. Nanning pollution level is high and air, drinking water pollution index are reach 75.00 even the green quality index is 83.33. The insufficient

of supply chain management study and regulation laws hinder the development of Nanning city. National Green Model City" (2015). The study about supply chain management is insufficient compare to other cities.

Ying, et al (2006) is defined as the resource-oriented enterprises such as steel produce companies, non-ferrous metals companies, building and architecture materials enterprises which rely on exploit natural mineral resources as basic materials enterprises; The theory of exploitation of resources Liu Fang (2012) illustrate that the underground resources exploitation and processing of monopoly is defined as the resource-oriented enterprises; Resource use intensity theory, Wang Fang, (2013), it pointed out that resource-oriented enterprises is wildly use the non-renewable natural resources as exploitation object, and resource use intensity percentage between 30% and 40% in the major products.

Green human resources management (GHRM)

The key definition of "Green Human Resource Management" (GHRM) was reveal by Jackson and Seo, (2010), the word "green" means pollution elimination; Renwick et al., (2013). Can summarize like: The human resources management (HRM) method which combine with green notion practice, and focus on the environmental performances

of company. It means green human resources use early traditional human management method as fundamental stage and change the general aspect into environmental issues Jackson and Seo, (2010). Human resource management practices plays an important role in companies polluted control performances, it is also good for ecological situation sustain in the future and prepare sufficient development resources for the next generation. Jabbour and Santos, (2008); Jabbour et al., (2008); Daily et al., (2012); Daily and Huang, (2001); Kitazawa and Sarkis, (2000); Based on the analysis above, Daily and Huang (2001) emphasize that the green development cannot leave the design of human force management practice, Company can concentrate on the practices as below: (1) green skill workers recruitment (green recruitment), (2) appropriate selection for environmental protection implementation (green selection), (3) green and sustainable training program (green training), (4) green result feedback evaluation mechanism (green evaluation), (5) punishment and rewards for inner workers (green encouragements).

Green supply chain management (GSCM)

The word "green" means environmental protection and pollution elimination. In the perspectives of company, if they want to develop in the long run or even

demand for the situation of sustainability, companies have to concentrate on the entire supply chain system. Vachon et al. (2008). In the operation management scholar areas, the major and crucial purpose of sustainable supply chain management is trying to tradeoff these three bottom line: environmental protection, social relationship and profit maximizations. Beske, et al (2014); Pagell, et al (2014); Grimm, et al. (2014). The key definition of GSCM (green supply chain management) is a part of SSCM (sustainable supply chain management), Gunasekaran and Ngai, (2012), which can illustrate like: The supply chain management (SCM) system which focus on the high standard of enhancement in environmental protection or green sustainability notions. Kannan, (2014). Zhu et al. (2008) using quantitative research to prove the green supply chain management practices which conduct well in companies supply chain process. The specific practices structure can list below: (1) Internal environmental management, (2) Green purchasing, (3) Cooperation with consumers, (4) Eco-design, (5) Recovering investments, (6) Reverse logistics.

GHRM and GSCM

The significant evidences of human resources management to supply chain management can be search in some scholars research. The detail show as bellow: (1) Supply chain management is

the most important firms' practices for enhancing firms' differentiation advantages strategy in recent years, and human resources management contribution is necessary. Gunasekaran et al., (2008); (2) Human resources managers have methods (such as evaluating and rewarding) which are helpful for introducing a more systematically knowledge of the supply chain management notions in inner company situation. So for green practice also can link to human performances; (3) Leadership believes and human regulation rules have significant influences on the high quality conducts of that companies' supply chain practice. McAfee et al., (2012), (4) Human resources management have significant effects on supply chain practice, and the practice can be any forms. Martínez-Jurado et al., (2013); Based on this literature review, it means the green practices of supply chain management also affect by human resources management. (5) Human resource factors mitigate the adverse effects of implementation barriers on the success of SCM practices. Gowen III and Tallon, (2003); (6) Human resources management practices (such as group works, training, and encouragement) can be conduct to enhance the cooperation among members in a supply chain aspect. Vanichchinchai, (2012); (7) The relationship between green supply chain management and green human resources management is uncertain, But Muduli et al. (2013) points out that the operation management cannot conduct without

human support. Ho et al. (2012) find out the negatives effects between this two variances in his qualitative method. However, Cantor et al. (2012) indicate that green employee management have positive effects on supply chain green performances. In order to test these unclear relationship, this article decide to use quantitative method to confirm it.(8) If the green practice combine with the traditional human management and supply chain, the relationship of the green study is effective. Renwick et al.,(2013).(9) The supply chain practice can divide into two types: external and internal, company internal supply chain practices is the fundamental, thus company have to focus on company inner employee aspect. Renwick et al., (2013), (10) In the human resources green practice, it require company should give employee a clear green target and systematically training, in other words, it means there have a closed linkage of green supply chain management practices, because the investment recovery and ecological system design are require employee to eliminate the resources over consumption and reduces the pollution behavior impacts. Govindarajulu and Daily (2004). Sarkis et al.,(2010) agree with the viewpoint above.(11) The logistics reversion practice of supply chain management alsolink to the human contribution, require company hire the skillful worker who have sufficient knowledge and experience in green transportation design. Ho et al., (2012); de Sousa Jabbour et al., (2013). (12) The study opportunity and suggestion of the

relationship between green human resources and green supply chain management practices is quantitative method analysis. After sufficient quantitative article reflect the result of study, the linkage will become more clear. Pagell and Shevchenko (2014). Thus, this article will use quantitative methodology to exam all of the hypothesis in chapter 3 and 4.

Hypothesis 1: Green staffing can improve the implementation of firms' green supply chain management.

Hypothesis 2: Green training can enhance the implementation of firms' green supply chain management.

Hypothesis 3: Green evaluation can improve the implementation of firms' green supply chain management.

Hypothesis 4: Green workgroup can improve the implementation of firms' green supply chain management.

Hypothesis 5: Green encouragement can improve the implementation of firms' sustainable supply chain management practices.

GSCM and company performances

The key concept of environmental performances of this article can summarize like: it is the companies' administration results which focus on energy conservations and nature materials saved or pursue the pollution minimization, Seuring and Muller, (2008). Green supply chain management

have a direct effects on companies' environmental and operational performances. Seuring and Muller, (2008).

The operational definition is a outcome of the process of operationalization and is adopted for defining something (Such as a variable, term, or object) in terms of a process (or set of validation tests) needed to determine its existence, duration, and quantity. Zhu, et al, (2004); Sarkis, et al (2011)

Green supply chain management have positive effects on operational performances, such as the enhancement in product line design, capacity and resources utilization, production quality standard, reduce the damage or scrap rate in manufacture process. Zhu, et al (2004). Compare with the literature review above, the GHRM have positive effects on GSCM, thus, it means the combination effects of this two variables will improve the operational performances of the company.

The reason for conducting Green supply chain management practices is that they can significantly enhance environmental performance. The evidences for proving this theory is quite clear. Such as the scholar Florida (1996) indicate that strong relationship between supply-side and demand-side, which can good for green merchandise development, companies can collaborate with suppliers to design high efficiency standard

process by focusing common goals of ecological protection and minimize the inventory level and rare resources consumption, and finally, the entire negative of environment will reduce a lot. Geffen and Rothenberg (2000) point out that, firstly, company can focus on inner green administration to eliminate the bad effects on ecological, secondly, company can conduct survey or other practices to communicate with consumers and suppliers to respect and understand their demand for green design and goals, Thirdly, all of the stakeholders in supply chain procedure can solve the polluted problem together and reach win-win situation target in further development.

Hypothesis 6: Green supply chain management implementation can improving firms' environmental performances.

Hypothesis 7: Green supply chain management implementation can improving firms' operational performances.

Based on the literature review above, the conceptual framework of this study can develop as figure 1, target at investigating the relationship between Green human resources management and green supply chain management performances of resources-oriented company in Nanning city. Thus, from the conceptual framework, GHRM practices can enhance the GSCM implementation and improve companies' performances.

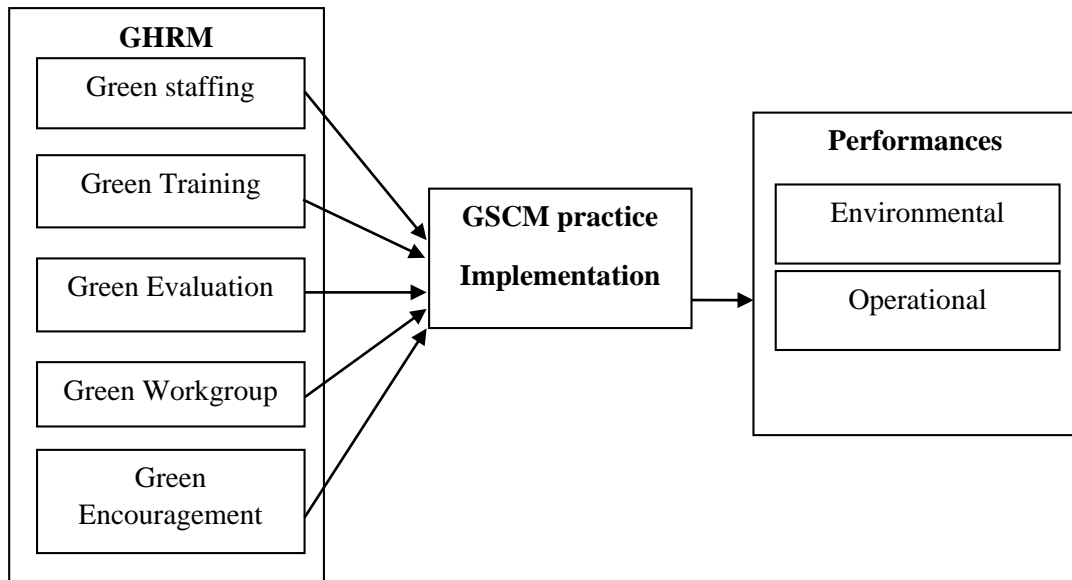


Figure 1 Research Conceptual Framework

Research methodology

Population and sample

Population quantities (2015): 237,877 companies (The HUANG database statistics of the People's Republic of China, Nanning section 2010-2015) Based on literature review in chapter 2, questionnaire aimed at investigating the Nanning, Chinese resources-oriented company which belong to mental and chemical industry. However, in the sample size, include the company which no have basic information exposure, thus, the sample size will delete this group. The sample size for the study calculated according to the formula recommended by Yamane (1973).

According to $N=237,877$, e is 5% (at least 95% confidence level), It is means

that the sample size is 400, so need to send at least 400 questionnaires in the plan, so this research decide to sent 470 questionnaires to increase the accuracy of the result.

Research instrument

In order to reach the purpose of this research, quantitative method was conducted in this article, thus, questionnaire design is necessary. In this study, totally have 4 sections, and section 1 is demographic information, such as, age, gender, position, ect. In this article, the questionnaire was designed in English and Chinese language. And the tools that uses for this research was as following: (1) Questionnaire that use in this study, design information are from journal, thesis, statistics and other relative specific database. (2)

Questionnaire structure that use for this research are design as following: The design principle of part 2-4 follow the Likert Scale rules, divide by 5 standards, it is "Strongly Agree", "Agree", "Neither Agree Nor Disagree", "Disagree" and "Strongly Disagree". Measure like this: 5= "Strongly Agree"; 4= "Agree"; 3= "Neither Agree nor Disagree"; 2= "Disagree"; 1= "Strongly Disagree"; The key issues and items were translate into Chinese language. The questionnaire section were developed in Appendix A.

Data collection

The unit of research is resources oriented company in Nanning city of China. The researcher used convenience sampling method in collecting data at this industry companies employee which locate in five investment zone Nanning in China. The researcher distributed 470 questionnaires form June 25th to July 26th, 2016. The questionnaires were distributed by SOJUMP research institution which have official support certification letter and data quality control center, thus, SOJUMP are appropriate for use in the model and this article can make sure the questionnaires will fill out by the correct target sample, on the other hand, the participant of SOJUMP research institution also have access to the

resources-oriented companies in each development district of Nanning, China and make sure this kind of sample companies had apply GSCM and GHRM practices (Such as the company which have to follow the environmental protection and polluted emission eliminate policy), based on the advantages of SOJUMP, this paper can increase the liability of data collection.

Data analysis

The hypothesis of this study aim at investigating the relationship between GHRM and GSCM performance of company, thus, the independent and dependent variable of conceptual framework was analyze by Amos 23. In this part, this article will analyze hypothesis test by using structure equation modeling (SEM) which follow ML (maximum likelihood estimate) method, Exploratory factor analysis (EFA) and Confirmation factor analysis (CFA) were used in validity test to explore the theoretical framework and eliminate the single section into one score, KMO (Kaiser-Meyer-Olkin) must equal 0.5 as a minimal acceptance level. Bartlett test results must be significant. The significant measurement model fit indices results are: $0 < \chi^2/df < 3$, CFI > 0.9, TLI > 0.9, RMSEA < 0.05.

Table 1 Variable introduction

The relationship between GHRM and GSCM practices implementation	
Independent Variables(IV)	Dependent Variables(DV)
Green Staffing	The implementation of green supply chain management practices
Green Training	
Green Workgroup	
Green Evaluation	
Green Encouragement	
The relationship between GSCM practices implementation and Companies' Performances(CP)	
Independent Variables(IV)	Dependent Variables(DV)
The implementation of green supply chain management practices	Companies' performances (CP)
	Environmental performances
	Operational performances

Analysis results

Reliability test

Reliability test are target at measuring the clarity and repeatable extent Malhotra and Birks, (1999). It means that the

results of the measurement have to consistent with repeated sequences extent of indicators measuring. The result of reliability measure will be high when the standard of consistency in repeated sequences indicators extent are also high.

Table 2 Reliability test result

Variable	A	α pretest	Number of items
GHRM	0.879	0.812	20
GSCM	0.882	0.857	12
CP	0.893	0.814	14

From the table above, if all the result of pre-test are greater than 0.7 Cronbach standard means that the questionnaire items are acceptable. Because of the α of

GHRM (0.879), GSCM (0.882) and CP (0.893) were higher than 0.7, thus, all of the items are acceptable in this questionnaire.

Validity test

Exploratory factor analysis (EFA)

There are two reasons for this paper choose Factor analysis (EFA and CFA): Firstly, reducing the data structure. For this paper, GHRM (Green human resources management) are measure by many green HRM practices, and each green HRM practices are also measure by many small items, thus, Factor analysis can eliminate the single practices into one score. Secondly, Factor analysis can explore the theoretical structure, for example, is it GSCM (Green supply chain management) can measure by single factor or multiple factors or how

many relatives factors have specific effects on it. Before conducting EFA (Exploration factor analysis), There have 2 tests are always used to check the appropriateness of data for factor analysis performance. thus, many paper suggested that KMO (Kaiser-Meyer-Olkin) must equal 0.5 as a minimal acceptance level. Bartlett test results must be significant. Based on the introduction above, the output of result can shows follows: This section will prepare for the SEM (structure equation modeling) analysis, which manipulated by ML (maximum likelihood estimate) method.

Table 3 EFA of GHRM (5 factor model)

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
a1					.753
a2					.814
a3					.880
b1		.852			
b2		.862			
b3		.786			
b4		.789			
b5		.770			
c1				.877	
c2				.884	
c3				.862	
d1	.836				
d2	.853				
d3	.870				
d4	.879				
d5	.885				
f1			.876		
f2			.826		
f3			.839		
f4			.844		
% of variance	19.309	17.338	15.620	12.519	11.219
Cumulative of Variance%	19.309	36.647	52.266	64.786	76.005
KMO	0.863				
Bartlett	5816.159				
P value	0.000				

From the output results, GHRM KMO=0.863(higher than 0.7), the same, GSCM KMO=0.910(higher than 0.7),CP KMO=0.922(higher than 0.7),and all of the Bartlett test is significant, it means that GHRM, GSCM, CP measurement model is suitable for factor analysis.

On the other hand, because of the loading on various factors(GHRM, GSCM, CP) is very high(-1 or 1), thus, Varimax rotation method was required, and the 5 factors cumulative of GHRM variance is 76.005%(higher than 50%), for factors cumulative of GSCM variances is 61.490(higher than 50%), for factors cumulative of CP variances is 61.490(higher than 50%),after rotating

analysis, the loading value is higher than 0.5, it indicates that the GHRM, GSCM and CP measurement model is validity.

Confirmatory factor analysis (CFA)

Because of EFA (exploratory factory analysis) only concentrate on the single variables measurements' validity, but ignoring the causal relationship between dependent variables and independent variables, thus, the further examination CFA (confirmatory factor analysis) is necessary, such as the multiple analysis among green staffing, green training, green workgroup and green evaluation, green encouragement, which belong to GHRM variables.

Table 3 GHRM model fitting index outputs

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	50	370.772	160	.000	2.317
Saturated model	210	.000	0		
Independence model	20	5914.294	190	.000	31.128

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.937	.926	.963	.956	.963
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.054	.047	.061	.176
Independence model	.258	.253	.264	.000

From the output result table above, the measurement model fit indices results are: $\chi^2/df=2.317$ ($0<\chi^2/df<3$), CFI=0.963 (>0.9), TLI=0.956 (>0.9), RMSEA=0.054 (<0.08), all of the indices shows that, the GHRM measurement model is acceptable fit. The CFA analysis shows follows, and from the CFA figure of GHRM, the coefficient of each item is clear. The same, from the output result of GSCM, the measurement model fit indices results are: $\chi^2/df=1.902$ ($0<\chi^2/df<3$), CFI=0.981 (>0.9), TLI=0.976 (>0.9), RMSEA=0.045 (<0.05), all of the indices shows that, the GSCM measurement model is acceptable fit. The CFA analysis shows follows, and from the CFA figure of GSCM, the coefficient of each item is clear.

From the output result of CP, the measurement model fit indices results are: $\chi^2/df=3.584$ ($0<\chi^2/df<5$), CFI=0.959 (>0.9), TLI=0.950 (>0.9), RMSEA=0.076 (<0.08), all of the indices shows that, the CP measurement model is acceptable fit. The CFA analysis shows follows, and from the CFA figure of CP, the coefficient of each item is clear.

Structure equation modeling (SEM) analysis

In this section, this paper will use ML (maximum likelihood) estimate method to analysis 453 questionnaires data, and list the outputs as follows:

Table 4 Parameter estimates of path coefficients

			Estimate	S.E.	C.R.	P
GSCM	<---	GHRM	.675	.087	7.777	***
CP	<---	GSCM	.252	.085	2.968	.003
External practices	<---	GSCM	.933	.122	7.634	***
Internal practices	<---	GSCM	1.000			
Green staffing	<---	GHRM	1.000			
Green training	<---	GHRM	.527	.077	6.880	***
Green workgroup	<---	GHRM	.520	.087	5.963	***
Green encouragement	<---	GHRM	.859	.095	9.075	***
Green evaluation	<---	GHRM	.780	.093	8.377	***
Environment Performances	<---	CP	1.000			
Operational Performances	<---	CP	1.538	.556	2.767	.006

***means $P<0.001$

B means Standardized path coefficient

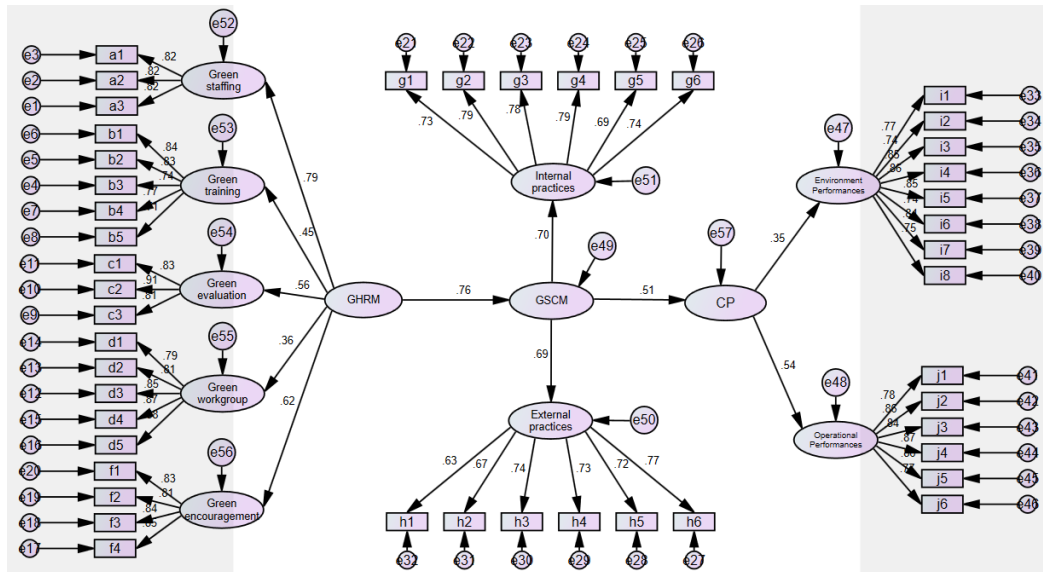


Figure2 SEM model analysis

Table 5 The modeling fitting

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	103	1717.644	978	.000	1.756
Saturated model	1081	.000	0		
Independence model	46	14390.779	1035	.000	13.904

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.881	.874	.945	.941	.945
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.041	.038	.044	1.000
Independence model	.169	.167	.171	.000

According to the result of table above, The P value of each variable is significant ($P < 0.05$), it means that green staffing, green training, green workgroup, green

evaluation and green encouragement have positive effects on Green supply chain management, thus, H1 to H5 was supported, green human resources

management can improve green supply chain management of company. On the other hand, GSCM also have positive effects on companies' performances (CP). H6 to H7 was supported.

From the output result table above, the measurement model fit indices results are: $\chi^2/df=1.756$ ($0<\chi^2/df<3$), CFI=0.945 (>0.9), TLI=0.941 (>0.9), RMSEA=0.041 (<0.05), all of the indices shows that, the measurement model is acceptable fit.

Discussion

GHRM and GSCM

The purpose of this research was to investigate the relationship between green human resources management (GHRM) and Green supply chain management (GSCM) and Companies' performances (CP).

From the results of SEM(The loading), this paper can find out that, H1 is significant than other items, which means green staffing is an important step in GHRM, and Nanning resources-oriented company have to focus on this practices. Jabbour et al, (2010) point out that staffing or recruitment can support company to hire excellent and appropriate employee to eliminate the pollution, and it is significant for green company. Based on the analysis above, this paper can confirm the effects of Green staffing. The result of SEM analysis shows that the H1 to H5 was supported, which means green human resources management can improve the green supply chain management implementation of company, thus,

human resources management in supply chain management process is necessary, Gunasekaran,et al, (2012).

Some scholars, Muduli et al, (2012) points out that the relationship between green human resources management is uncertain, but companies operation management cannot conduct without human resources support. Obviously, the result of SEM in chapter 2 provide an important evidence.

There are many scholars emphasize that human resource management plays an important role in compies' environmental performances, it is the definition and features of GHRM, Daily et al, (2001), Thus, the traditional human resources management cannot leave the design of green ecological development, Daily and Huang, (2001), such as using staffing the green skill workers and setting environmental target and responsibilities for them, evaluating and encouraging them when workers have a good performances on environmental protection process. on the other hand, Boks, (2006) also points out that, workers' perspective are the important stage for the implement of better ecological protection practices.

GSCM and companies' performances

The SEM result shows that, the H6 to H7 was support, GSCM have positive impact on firms' performances, and thus, company can enhance their operational and environmental performances by conducting more GSCM. Because of the definition of GSCM and GHRM, this article only focus on these two performances, for GHRM, it require

company to improve the environment situation and GSCM concept emphasize company cannot conduct operational management without human resources support. Zhu, et al, (2004) indicates that if company use green supply chain management practices, the production line and inventory can reach the optimize level, thus, the totally cost of company will reduce, it is good for companies' future development. Zhu, el al, (2013) prove the hypothesis in his empirical analysis paper, and he also points out that the GSCM can contribute to the capacity and resources utilization of company.

Conclusion

This study aim at investigating the relationship from GHRM to GSCM and companies' environmental performances and operational performances, and the target group of this study is the resources-oriented company in Nanning city of China, thus, the questionnaire method is required, In data collection process, this paper totally distributed 470 questionnaires, and 453 can use. In data analysis part, this study use EFA and CFA method to examine the validity of each measurement model and conduct the structure equation modeling (SEM) to confirm the regression results. For questionnaire demographic (453 samples), this paper find out that the gender category consist of 302 male respondents (66.7%), and 33.3% female respondents (n=151), it means that in Nanning resources oriented industry, the male worker is majority group. The age respondents rate indicates that most of the workers are 35-44 years old (38.2% of the respondents). This paper also finds

that the largest group of education level category is bachelor degree, which consist of 51.9%. For company ownership types, most of the respondents are come from state-own company (62.7%), thus, it means that, in Chinese resources-oriented industry, government have intervention behaviors, especially for oil and gas industry (39.7% of the respondents), which more rely on rare nature resources. Based on the analysis, H1 to H7 was supported, it means GHRM have positive effects on GSCM and companies' performances, the conceptual framework is significant. For supplier and customer perspectives, they can understand more about green notion and conducting the appropriate practice in HRM and SCM.

Implication

Firstly, the future study can expand the research area to another city or different country, and gain the better study results that based on deferent culture and industry background. Secondly, the Future research can focus on different area, not only for resources-oriented company, but also for some emerging industry. Thirdly, the future study may include more variables and research items for company performances, such as economic performances and financial performances. More data analysis method it is required. Lastly, For MANOVA data analysis method, future study may continue to use and separate the GHRM and GSCM measurement model into several groups, and analysis the effects of single practice item(such as green staffing or green encouragement),

thus, finally can find out which green human practices have the most significant effects on supply chain management, then propose the relatives suggestion to company and help them to choose the most important green human resources management practices to save the total cost of investment.

Limitations & further research

First of all, this study concentrate on resources-oriented industry, this large industry have many small unit, the features of each unit's background, such as supply chain and human resources management may different, especially for state-own company in Nanning, China. thus, these factors is hard to explain and control in these paper. Other

than that, this article uses limited number of variables, such as GSCM also can measure by Reverse logistics. Lastly, the respondents of this study only focus on the resources-oriented companies' employee in Nanning, China, But the questionnaire items is too long, the emotional factors cannot control in this study. The future study can expand the research area to another city or different country, and gain the better study results that based on deferent culture and industry background. Secondly, the Future research can focus on different area, not only for resources-oriented company, but also for some emerging industry. Thirdly, the future study may include more variables and research items for company performances, such as economic performances and financial performances. More data analysis method it is required.

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Appendix 1

GHRM and GSCM outcomes questionnaire (English version)

This is a survey about green human resources management effects on green supply chain management and companies' performances, which in Nanning, China. It will contribute towards finding the proper way in managing the supply chain to enhance operational effectiveness and environmental sustainability. This questionnaires is part of data collection in my dissertation. As an MBA student, I am grateful to have your participation in this survey.

Thank you for your participation, this questionnaire only for survey and scholar research, not involve in commercial purpose. This questionnaire totally have 4 sections, consisting of 54 questions

Section 1 Basic information

Please kindly specify the most appropriate option of each statement which correspond most closely to your desired response.

Can use symbol "√" to answer it.

(1) What is your gender?

- ☐ Male ☐ Female

(2) What is your age?

- ☐ 18-24 ☐ 25-34
☐ 35-44 ☐ 45-54
☐ 55-64 ☐ 65 or over

(3) What is your education level?

- ☐ High school/Lower ☐ Bachelor degree
☐ Master degree ☐ Doctor degree

(4) How long is your working experiences?

- ☐ <1 Year ☐ 1-5 Years
☐ > 5 Years



(5) What is your company ownership types ?

- ☐ State-owned company
- ☐ Private Chinese company
- ☐ Foreign or Joint ventures

(6) What is your company size?

- ☐ <300 ☐ 300-2,000
- ☐ > 2,000

(7) Which industry dose your company belong to ?

- ☐ Coal mining industry ☐ Oil and gas industry
- ☐ Ferrous metal industry ☐ Non-ferrous metal industry
- ☐ Non-metallic mineral industry
- ☐ Not belong to the industry above_____

(8) What is your position ?

- ☐ Supervisor/Management ☐ Maintenance
- ☐ Customer Services ☐ Clerical
- ☐ Other_____

Section 2 Green Human Resources Management (GHRM)

Green human resources management (GHRM) means the human management method which combine with green notion practices, and focus on the environmental performances of company. (The "green" can be defined as environmental protection or pollution elimination.) Please kindly specify the most appropriate scale of each statement which correspond most closely to your desired response.

Please check (✓) in one of the boxes below in the following scale:

5= "Strongly Agree";

4= "Agree";

3= "Neither Agree nor Disagree ";

2= "Disagree";

1= "Strongly Disagree";

Our company apply these green human resources method as follow:	Level of agreement				
	1	2	3	4	5
(1) Our company eliminates paper in recruiting materials					
(2) Our company encourages employees to participate in Green recruitment design (Such as letting employee to prepare solution in recruitment materials waste)					
(3) Our company recruits employees who are "green aware"					
(4) Our company emphasizes the significance of green notions when training employees(such as how their jobs specifically affect the environment)					
(5) Our company uses lots of images in green training materials					
(6) Our company encourages workers to design their own green training materials					
(7) Our company has green awareness, skill and expertise training					
(8) Our company has training for green jobs, and integrated training to create an emotional involvement in environment protection					
(9) Our company sets green performance indicators include in appraisals and performances management system					



(10) Our company sets green targets, goals, and responsibilities.					
(11) Our company sets objectives on achieving green outcomes included in appraisals					
(12) Our company appraises low-carbon champions and green action teams					
(13) Our company supports to help employees attain their goals. (For example, firms dedicated work hours for environmental activities)					
(14) Our company collects organizational and benchmarking information to determine which employees or team extra-role behaviors will have the greatest positive effects on the environment					
(15) Our company provides forums for employees to network and share their experiences, suggestions, and successes in green activities					
(16) Our company provides recognitions or small gift rewards to successful teams or employees					
(17) Our company encourages managers to include green tasks and goals in employee work goals and job					
(18) Our company provides a portion of any monetary savings attained on green initiatives back to the employees or team that achieved them					
(19) Our company encourages employees to make suggestions for environment management improvement					
(20) Our company provides monthly managerial bonuses for good environment management					

Section 3 Green supply chain management (GSCM) practices

Green supply chain management (GSCM) is the supply chain system which focus on the high standard of enhancement in environmental protection or green sustainability notions. Please kindly specify the most appropriate scale of each statement which correspond most closely to your desired response.

Please check (✓) in one of the boxes below in the following scale:

5= "Strongly Agree";

4= "Agree";

3= "Neither Agree nor Disagree ";

2= "Disagree";

1= "Strongly Disagree";

Our company applies the green supply chain management practices as follow:	Level of agreement				
	1	2	3	4	5
(1) Our company designs products for reuse, recycle, recovery of material, component parts					
(2) Our company designs products for reduced consumption of materials/energy					
(3) Our company designs products to avoid or reduce the use of hazardous of products.					
(4) Our company has investment recovery(sale) of excess inventory/materials					
(5) Our company sells scrap materials and used materials					
(6) Our company sells excess capital equipment					
(7) Our company requires suppliers to provide ISO 14000 certification					
(8) Our company collaborates with suppliers for environmental objectives					
(9) Our company collaborates with suppliers for eco-design					
(10) Our company adopts third-party-logistics					
(11) Our company collaborates with Consumers for green packaging					
(12) Our company collaborates with consumers for eco-design					

Section 4 Company performances

Please kindly specify the most appropriate scale of each statement which correspond most closely to your desired response. Can use symbol "√" to answer it.

Please check (√) in one of the boxes below in the following scale:

5= "Strongly Agree";

4= "Agree";

3= "Neither Agree nor Disagree ";

2= "Disagree";

1= "Strongly Disagree";

Environment performances					
When we engage in environment practice, We contribute to	Level of agreement				
	1	2	3	4	5
(1) Improve company's environment situation					
(2) Reduction of Air emission					
(3) Reduction of waste water					
(4) Reduction of Solid pollution					
(5) Decrease in use of nature resources					
(6) Decrease of consumption of hazardous/ harmful/toxic materials					
(7) Decrease of frequency for environment accidents					
(8) Increase in energy saved due to conservation and efficiency improvements					
Operational Performances					
When we engage in operational practices, We contribute to	Level of agreement				
	1	2	3	4	5
(9) Increase amount of goods delivered on time					
(10) Decrease inventory levels					
(11) promote products quality					
(12) Increase production line					
(13) Improve capacity utilization					
(14) Decrease Scrap rate					

MEDIATING EFFECTS ON PERFORMANCE OF THAI FAMILY BUSINESSES

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Abstract

The global economy is generated by family businesses but only 5% of family firms can survive in long term. The effects of business' size, conflicts, family values, leadership in family firms, and number of non-family members in the family companies are widely found in the recent literatures. However, only little researches focus on how family firms can extend their business life cycle. Consequently, the achievement of sustainable business performance of family businesses has the significant gap in literatures that researchers should fill in. The understanding of how family businesses can achieve their performance to be able to survive in the forceful business environment is the aim of the research. According to the literatures, family businesses frequently face with severe problems in long term because their disadvantages are naturally caused by their characteristic. This characteristic is generated by the mixture of "family" and "business" which is the uniqueness of family firms that gives them a great competitiveness. Nevertheless, the distinctive characteristic can also create the vast disadvantage itself. The combination of family and business makes the family businesses a complexity which are naturally inherent with short-term view of management and full of unfairness. These factors can decrease their business performance significantly and finally make family firms extinct from the business world. Family businesses are suggested to focus on their unique competitive advantage (commitment) and factors that can lessen this competitiveness. Several researchers mentioned that managerial trust is the factor influencing the commitment of business owners. After the reviewing of literatures, the conceptual framework (the four propositions included) is developed and proposed to examine how family business can survive in long term. It links five variables which are key constructs of family business. The proposed model consists of two main objectives. First, the model is developed to verify the relationship between managerial trust, commitment, and business performance. Second, the model is proposed to investigate the impact of unfairness and

short-term strategy. The samples, which are business' owners in several industries, are picked randomly from the list provided by the Department of Business Development Ministry of Commerce (DBD). After the carefully developed questionnaires are returned, the information will be examined by two computer programs (SPSS and AMOS). The gap of how family business can survive sustainably is therefore fulfilled by the findings of the research which contribute to both practitioners and academia in family business.

Introduction

Family businesses drive more than 30% of the world economy; nevertheless, they could not survive in long term (Hamilton, 2011). Collins and O' Regan (2011) mentioned that the importance family business is broadly appreciated. They also said that most of the countries perceive family business as the pillar of their economy. Excitingly, Rodríguez (2009) acknowledged that family businesses generate great Gross National Product (GNP) throughout the world (40-45 percent of GNP in North America, 35-65 percent of GNP in EU members, and 65-82 percent of GNP in Asia). Furthermore, the amount of family business is much greater than non-family business; for example, eighty percent of US business is family business. However, less than 5% of family business can survive in long term (Basu, 2004; Lussier & Sonfield, 2006; Cater III & Justis, 2010). Family businesses have been studied by many researchers because of the contrast of their excessive importance and the low survival rate. The factors that can create the sustainable business performance of family business therefore need to be focused and examined.

Collins & O' Regan (2011) stated that researchers pay attention on family business as the interesting academic topic less than 30 years. Many

researchers also mentioned that the topic of family business becomes more popular because it has the extensive growth in study (Basu, 2004; Rodríguez, 2009; Collins & O' Regan, 2011). Nevertheless, there are several literature gaps in family business needed to be completed. First, the study of unfairness within family firms has not been focused by many researchers. The owners of family business can achieve their goal because they generally have the strong level of commitment; however, it can be influenced by managerial trust (Collins & O' Regan, 2011). Leaders will have more commitment when they gain trust from their subordinates. Although trust can increase the level of commitment, unfairness within family business can influence their relationships.

Second, researchers are interested in the process that makes family businesses have short business life cycle rather than the exploration of why they are failed. Because family firms tend to apply short-term strategies; thus, the researcher will examine the strategies applied by family businesses as a factor that shorten their business life cycle to fill in the literature gap. Third, Thai family businesses are studied by a little number of researchers even though Thailand is one of the fastest growing economies in Asian countries (Swierczek and Onishi (2003). Brice and Richardson (2009) mentioned that family businesses do not only drive economy in

developed countries also in developing countries. Fourth, the measurement of family business performance is another limitation of the latest literatures. Objective measurement - such as profit and return on asset (ROA) - is the most frequently indicator used by most researchers. Ibrahim, Soufani, and Lam (2003) stated that subjective measurement should be considered when a researcher wants to study on the performance of family businesses. This is because subjective measurement is more appropriate indicator to examine the emotional issue such as family relationship within the family firms. From the above statement, multidimensional indicators for exploration of family business performance will be developed in this research. The research question of this study is therefore generated as *“How the unfairness and short-term strategy affect the business performance of Thai family companies?”* to fill in the recent literature gaps.

Objectives

- 1) To develop a conceptual framework of the relationship between trust, commitment, unfairness, short-term strategy, and business performance of Thai family business.
- 2) To verify the relationship between managerial trust and commitment and the relationship between commitment and business performance.
- 3) To study the effect of unfairness and short-term strategy.

Definition of family business

Many researchers gave the definition of family business for their research before conducting the study. For example, “the firm that family members are shareholders which hold the voting right and decision-making right”, (Ng and Thorpe, 2010). Cater and Justis (2010) performed their research by using the definition of family firms as “the company that the ownership is belonged to multiple family members and the management level is controlled by several family members”. Another example of family business definition was given by Sreih (2009), Handler (1989), and Elman (1988) as “a business that is owned, managed and controlled by one or more family members”.

More than 90 definitions of family business were pointed out by researchers (Collins and O'Regan, 2011). Erdem and Başer (2010) specified that it is hard to clarify the definition of family businesses because it is complicated and concerned with many variables. Three factors that are the foundation of the definition consist of the degree of family ownership, the degree of family control in management, and the intention of the succession (Cater III and Justis, 2010; Zachary, 2011). In general, the intention of the succession is neglected by researchers. Laakkonen and Kansikas (2011) said that family business' owners aim to handover their business to their heirs; consequently, the definition should include the intention of the succession. The combination of all those three factors is therefore appropriated for the definition of family business. Adaptation of the definition from many researches is then carefully considered as “The firm that has been controlled by family members and wants to securely transfer their businesses to the next generations

with major shareholders, voting right and decision-making right” (Claessens *et al.*, 2002; Barontini and Caprio, 2005; Fahlenbrach, 2006).

Literature reviews

The relationship between managerial trust and commitment

The factor that makes an organization achieves its long term accomplishment is managerial trust (Dayan, 2010; Shi, Shepherd, and Schmidts, 2015). (Rousseau *et al.* 1998, Parayitam and Dooley 2007) mentioned that trust is the willingness of a person to take a risk of believing in their leader’s behavior. To be able to survive in the chaotic business environment, leaders may have to implement many risk-taking strategies which needed to gain the belief from their subordinates. Trust environment is therefore the essential factor to cope with unstable business environment and to attain the goal of the organization (Zuppa, Olbina, and Issa, 2016). (As mentioned above, trust benefits company in many ways. The trust environment leads the company to attain competitive advantage to compete with the tough business environment. People will dedicate themselves when they are trusted) (Lewicka and Krot, 2015; Joseph and Winston, 2005). (Entrepreneurs will have moral support when they have got trust from their employees) (Malcolm and Hartley, 2010). (Möllering, Bachmann, and Lee 2004) signified that the level of engagement of the owners is higher after they have found that they are trusted. Because of its significant importance, the factors that can generate managerial trust is then proposed and studied by researcher.

Zachary 2011 (and Rampersad *et al.* 2010) stated that commitment, which is the uniqueness of family business, is the attempt of family business owners to devote their personal time to their businesses. They put on the incredible effort to work hard to achieve the goal of their companies. This splendid dedication becomes the unique competitiveness of family business because the level of commitment within family firm is much more than non-family business (Rampersad *et al.*, 2010). (From the above statement, the commitment of leaders which is the great business competitiveness can be increased by the managerial trust) (Cater III and Justis, 2010). (Nevertheless, the relationship between commitment and managerial trust is discussed from many researchers. On one hand, commitment is believed that it can influence trust because leaders got trust from subordinates after they put their effort on the company) (Rampersad *et al.*, 2010). (Conversely, commitment is studied by many researchers and found that it is resulted from the managerial trust) (Swierczek and Onishi 2003; Malcolm and Hartley, 2010). (Dayan 2010) supported that managerial trust can increase the level of commitment which can lower the turnover rate and eventually increase the level of business performance. It can be understood that the relationship between managerial trust and commitment is the crucial topic) (Lewicka and Krot, 2015; Jiang, Gollan, and Brooks, 2015). (This research therefore aims to highlight the effect of trust on the commitment of family business).

Proposition 1: The higher level of managerial trust leads to the higher level of commitment.

The moderating effect of unfairness

The mixture between family and business is the cause of family business' unique characteristic (Ibrahim, Soufani, and Lam, 2003). In addition, this uniqueness results in family firms' competitiveness (commitment) (Lussier and Sonfield, 2006). To gain the full benefit from this exceptionality, the combination between "family" and "business" must be fine managed. This is because this remarkable unique can turn into disadvantage itself, which is called unfairness (Collins and O'Regan, 2011). The exceptional combination can lead to the complex organization and emotional issue. Interestingly, unfairness has been studied by very few researches although its effects are dreadful.

A study of antisocial behavior and its relationship to managerial trust pointed to the importance of unfairness or perceived injustice as an intervening factor between managerial trust and organizational commitment (Chory and Hubbell, 2008). The authors studied behavioral responses such as deception, hostility, interpersonal aggression and obstructionism, noting that these antisocial responses generally resulted from poor organizational commitment (though sometimes associated with high continuance commitment). They found that high perceptions of justice (in other words, perceptions that the workplace was fair) and high managerial trust were both negatively associated with the four antisocial behaviors identified. In other words, as justice perceptions and managerial trust went up, antisocial behaviors went down. The authors also observed a mediation effect of managerial trust on the relationship

between justice and the antisocial response factors (Chory and Hubbell, 2008). Thus, while this study does not specifically examine organizational commitment, it focuses on behaviors that occur in the absence of organizational commitment, providing insight into the potential real outcomes of such a relationship.

Another study on unfairness addressed organizational commitment following a downsizing event (van Dierendonck and Jacobs, 2012). This study used a quantitative meta-analysis approach to understand how downsizing survivors responded in terms of organizational commitment. The authors pointed out that there were different types of unfairness that might make a difference; for example, while distributive justice (for example the size of downsizing redundancy payments) did not play a strong role in trust, procedural justice (the perception of how fair the choice of downsized employees was) did (van Dierendonck and Jacobs, 2012). Their study found that procedural justice had a significant role in affective commitment, preserving generalized organizational trust. This effect was higher for some countries, especially those that were highly individualistic (van Dierendonck and Jacobs, 2012). Thus, this study does point to a possible intervening effect of unfairness between managerial trust and organizational commitment. However, it did not directly test this relationship. Furthermore, the study only addressed affective commitment, and did not address normative or continuance

commitment. Thus, these studies provide some support for a possible relationship, but are not conclusive.

From the literatures, the influence of unfairness can affect the relationship between trust and commitment. This research thus intends to investigate and reinforce its effects. The proposed proposition is then developed and shown below.

Proposition 2: The relationship between trust and commitment is moderated by unfairness.

The relationship between commitment and business performance

All companies want to acquire the performance as high as they can because it indicates the achievements of their organization (Elbanna and Naguib, 2009). Oyewobi, Windapo, and James (2015) identified that most of researchers assess the business performance by the objective measurement. The most frequently used indicator is the return on assets (ROA) which measures the effectiveness of company's resource exploitation to create the company's income (Elsaid and Ursel, 2011). Growth rate is also regularly practiced to investigate the business performance (Laakkonen and Kansikas, 2011). They said that growth rate is used to examine the expansion of company's revenue. The results of their study illustrated that while the first generation is rising their business growth more speedily, the next generations can acquire more profit. Because of the complication of family business, it is needed to be examined in

multi-dimension (Lissoni *et al.*, 2010; Parnell, Lester, Long, and Köseoglu, 2012). Therefore, objective indicators are not sufficient to examine family business performance themselves and multidimensional indicators should be developed to cope with the complex organization such as family business (Beham and Drobnic, 2010).

Apart from the importance of multidimensional indicators, the cause of business performance must be examined to be able to increase the level of achievement. Chi, Kilduff, and Gargeya (2009), Erdem and Başer (2010) and Kotey (2003) indicated that company that has the higher competitiveness can achieve greater performance. Leader's skill is proposed as the main competitiveness of family firms because the owner is the one who leads his/her own companies; therefore, he or she needs to attain sufficient skill to grow their business' wealth (Moller, 1994). Besides, Zhou (2014) and Parayitam and Dooley (2007) specified that commitment is the most important competitive advantages because it is the unique competitiveness of family business comparing with non-family business. Also, Tzempelikos (2015) and Cater III and Justis (2010) recommended that higher business performance can be attained by higher commitment. This research aims to strengthen this relationship and to focus on the commitment as the cause of business performance.

Proposition 3: The higher level of owner's commitment leads to the better business performance.

The moderating effect of short term strategy

Family business is perceived as the company that has short term view of management which eventually has the short business life cycle (Lutz and Schraml, 2012; Sabourin, 2015). Braun, Latham, and Porschitz (2016) identified that family companies tend to implement short-term strategies. This showed that achievement of short term performance cannot sustain the family business in long term. While non-family firms are trying to be sustainable in long-term, family business owners only focus on their wealth (Lutz and Schraml, 2012). Additionally, Swierczek and Onishi (2003) showed that Thai companies always develop short-term strategies. Instead of developing long-term plan, they usually attempt to reach their goals within one year. From the recent literatures, it can be concluded that family businesses typically have short business life cycle because of the implementation of short-term strategies (Lutz and Schraml, 2012; Banker, Mashruwala, and Tripathy, 2014).

There are some possible evidences for the intervening effect of short-term strategies on the relationship between organizational commitment and work performance. One study focuses on non-selective downsizing as a short-term strategy to increase profits (Bragger et al., 2014). The authors found that this practice, which selects employees without consideration for their performance but based on some other factors like seniority, has negative effects on both organizational commitment and job performance (Bragger et al., 2014). In fact, it may fully disrupt the relationship between the two (Bragger et

al., 2014). There is also evidence that treating employees as short-term investments – for example, engaging in rapid hiring and firing – also results in weaker organizational commitment (Harris and Twomey, 2008). Specifically, these authors showed that employees that are treated as disposable or short-term assets by firms also show little loyalty or organizational commitment, and are very likely to turn over and avoid making significant organizational contributions (Harris and Twomey, 2008). Thus, there is some suggestion that short-term strategies may be detrimental to the relationship between organizational commitment and organizational performance. However, the evidences of the link between organizational commitment, short-term strategy, and organizational performance are generally weak. Hence, examination of this chain of relationships will be a contribution to the academic literature that will fill a continuing research gap.

The unique characteristic (short-term view company), which causes the disadvantage that inherited within the family business, showed that short-term strategies are implemented. The moderating effect of short-term strategy on the relationship between commitment and business performance should be therefore explored as the suggested proposition shown below.

Proposition 4: The relationship between commitment and business performance is weakened by the short-term strategy.

Conceptual framework

Figure 2 illustrated the relationship between five variables that have been discussed in the earlier section. The relationship linked all the variables studied by this research which are managerial trust, commitment, unfairness, short- term strategy, and business performance. Additionally, the four propositions are demonstrated together within the conceptual

framework. There are two key relationships suggested within the proposed conceptual framework. First, the relationships between managerial trust, commitment, and business performance are proposed to be positive relationship. Second, the moderator effects of unfairness and short- term strategy which can lessen the business performance will be inspected.

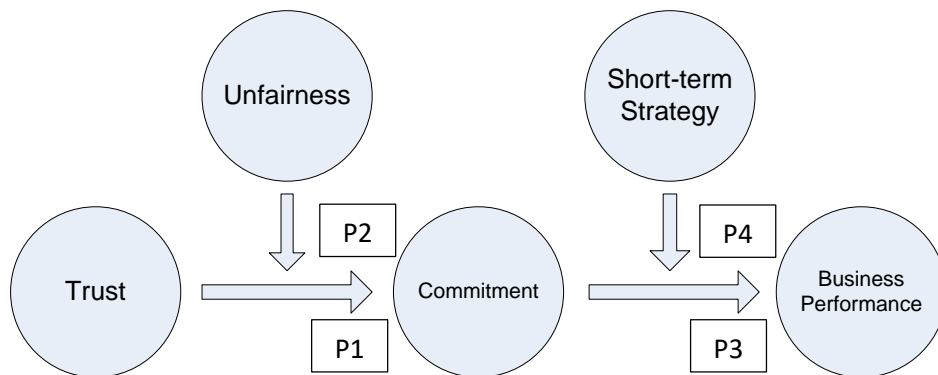


Figure 2 Conceptual framework of the research

Regarding the conceptual framework, the development of the measures of each construct are generated to examine all the variables. The next section consists of research design, method of data analysis, target population and sample size, and the measures of the five variables.

Research design

This empirical study is designed as the cross-sectional research because it consumes less time and cost than the longitudinal design. This research executes the quantitative approaches to generalize the findings. However, it also

implements the qualitative techniques. Family business research needs to be conducted sensitively because it is the complex organization. Moreover, it is sensitive for respondents to fill in the questionnaire because some information are sensitive to answer. Researcher thus needs to carefully design the proper indicators and to understand each measure correctly. The semi-constructed interviews regarding the developed questionnaire allow the researcher to healthier comprehend the variables and measures before conducting the research. Moreover, the experts in family business will be asked to prove the validity of the developed measures. These qualitative

techniques help the researcher to realize the validity of the measures whether they are valid to what they examine. The benefit of implementing the quantitative method together with the qualitative techniques avoids the researcher from his own judgement and misunderstanding. Although the qualitative approach can dig into the information of each variable, it cannot generalize the results widely. Therefore, exploitation of both methods benefits the researcher in terms of validity and generalization.

After the validity verification, informants will receive the questionnaire by post and/or e-mail which the addresses and contacts are provided by the Department of Business Development (DBD). Respondents are then asked to return the questionnaire to the researcher by post (prepaid envelop is provided) or e-mail. The postal survey is suitable for the research because it has the lower cost and researcher can reach the large samples. In addition, wording has the higher level of standardized than interviews which always has the interview bias. Internet survey may have lower cost and can reach more informants than postal survey; however, it is more problematic to get the response from the informants. Another alternative to conduct the research is the telephone survey. Although it is faster than postal survey, respondents usually do not have much patience to finish the survey. To sum up, the postal survey (and e-mail) seems to be the efficient method for this research. Furthermore, the research design is cautiously developed; consequently, the contribution of research findings will be qualified.

Methods of data analysis

Two computer programs which are SPSS and AMOS will be implemented to analysis the information after the returning of questionnaires from the respondents. The utilization of statistical methods such as descriptive statistics and multiple regressions will be used to analyze the data. Moreover, the reliability of the measures will be investigated by examination of the Cronbrach's alpha value (expected to be more than 0.8). After that, Structural Equation Modeling (SEM), which is a generally used in academic research (Hair *et al.*, 2010), will be tested. The research uses the AMOS computer program for the consideration of the conceptual model. Since this research proposes the framework that consists of multiple relationships between the constructs and the multiple regressions cannot estimate these many relationships at once; accordingly, SEM is used for the research (Hair *et.al.*, 2010).

Structural equation model (SEM) is famously used when the causal relation between the variables is being measured. SEM is used to evaluate the structural model and the hypotheses to see if the proposed conceptual framework fits the data and also specifies the structural relationships among the sets of latent variables (Byrne, 2001; Hair *et al.*, 2009). In this study, Structural equation modeling (SEM) is divided into measurement model part and structural model part. The measurement model represents the relationship between latent variables and observed variables, while the structural model represents the causal relationship between latent variables.

Target population and sample size

The target population of this research is attained by Department of Business Development (DBD). Then, these firms will be contacted by telephone calls to verify their address before the questionnaires are delivered. Nevertheless, the questionnaire will be sent by post and e-mail which usually has the difficulty with insufficient usable responses. In addition, the high-level executives rarely reply to mailed questionnaires. Consequently, the data collection of this research has been developed to cope with these difficulties which the survey administration will be discussed later.

Hair *et al.* (2010) suggested that large sample size is the good representative of the target population and leads to less sampling error. In addition, the estimation for the model fit of Structural equation modeling procedure is based on the assumption of a large sample size. The SEM simulation provides the valid and stable result with minimum sample sizes as 50. Moreover, the model that consists of more variables requires larger samples. Larger sample size leads to more information and greater stability of the results. Furthermore, the missing data must be taken into an account because it can reduce the usable information. Accordingly, the larger sample size can offset the problems of missing data. The target population of this research is able to be attained by Department of Business Development (DBD). Ernst and Young estimated the approximation about 80% of Thai companies are family businesses in 2014. The size of sampling in this study is therefore 400 companies enough to proceed in statistical procedure of

SEM analysis. The size of sample group in this study was calculated by using Taro Yamane (Yamane, 1973) equation as follows:

$$n = N / 1 + N(e)^2$$

where; n = sample size

Questionnaire pre-testing

The developed questionnaire will be examined its accuracy and validity by in-depth interviews before it is actually used in the field survey. The respondents of the interviews are similar to the target population. They are family business owners whom have been working in the family business more than 5 years. The semi-structured interviews will be conducted regarding the developed questionnaire. The aim of this qualitative technique is to revise and adjust the questionnaire. Therefore, the wording, layout, question sequencing, and adequacy of instructions will be amended to eliminate any confusion of the questionnaire completion.

Moreover, the questionnaire will be verified by the experts who are familiar with the objective of the research (Turner and Carlson, 2003). 3 experts in family business will be asked to check the validity of each measure by calculating Index of Item Objective Congruence (IOC). The IOC value is then calculated by IOC formula. The score is expected to be higher or equal to 0.5 which means that the validity and reliability of the questionnaire is acceptable. On the other hand, the measures which are invalid and unreliable need to be revised if the IOC

score is lower than 0.5. The IOC formula is shown below;

$$\text{IOC} = \text{Sum}/N$$

where; Sum = the overall scores from the experts and N = the number of experts

After the measure adjustment, the reliability of five constructs will be investigated by the small sample of respondents. The pilot survey will be conducted by postal survey which the informants are 5% of the research samples. After the questionnaires are return, the reliability and validity will be tested. The expected Cronbach's alpha of each construct is 0.8 and higher. This survey benefits the research in terms of time and cost. Accordingly, the developed questionnaire will have the high reliability and validity to perform the empirical study.

Development of measurement items

The questionnaire, which is shown in Appendix, is cautiously developed regarding the literature reviews. There are five sets of questions to investigate the five constructs of the theoretical model. The technique of back translation is conducted after the questionnaire is generated to avoid the researcher from the incorrect information that respondents may misunderstand the questions developed by the researcher. The questionnaire is first developed in English language because the international journals are published in English language. Nonetheless, the respondents of this research are Thai; so, it is translated into Thai language which three native Thai academic researchers from Thai well-known universities are asked to check the translation accuracy.

Next, three native Thai academic researchers whom are familiar with family businesses are asked to back-translated the questionnaire into the English language. Later, the back-translated version will be compared with the original version. Then, the measures are also revised their validity by the interviews with entrepreneurs and by the calculating Index of Item Objective Congruence (IOC) from experts in family business. Moreover, the reliability are checked by pilot test before they are used in the field survey. Finally, the developed questionnaire has the adequate validity and reliability for collecting the information from the research samples.

Results of the study

Questionnaire reliability using Cronbach's alpha

There were nine scales in the survey, including seven predictor scales (Integrity, Benevolence, Concern, Ability, Commitment, Unfairness, and Short-term Strategy) and two outcome scales (Objective Business Performance and Subjective Business Performance). Originally, these scales had between 6 and 24 items included, based on the underlying adapted instruments. Five scales – Ability, Commitment, Unfairness, Short- Term Strategy, and Objective Business Performance – did require adaptation due to an initially low Cronbach's alpha score. In order to make the adjustments, the researcher examined the inter-item correlations for each of the scales and used a stepwise approach to removing items, beginning with the lowest correlated items. Thus, the scales were all adjusted to have an appropriate level of internal consistency following

this process. Table 1 shows the summary of Cronbach's alpha scores which

includes both initial values and post-adjusted values.

Table 1 Cronbach's alpha scores summary

Scale (Original number of items)	Cronbach's alpha (α) Initial	Scale adjustment	Cronbach's alpha (α) Post-adjustment
Integrity (9)	0.941	None	
Benevolence (6)	0.850	None	
Concern (6)	0.826	None	
Ability (3)	0.556	Removal of 1 item	$\alpha = 0.810$
Commitment (24)	0.458	Removal of 20 items	$\alpha = 0.850$
Unfairness (12 items)	0.661	Removal of 8 items	$\alpha = 0.829$
Short-term Strategy (15 items)	0.477	Removal of 10 items	$\alpha = 0.880$
Objective Business Performance (8 items)	0.671	Removal of 4 items	$\alpha = 0.814$
Subjective Business Performance (10 items)	0.888	None	

Questionnaire reliability and validity using CFA

Confirmatory factor analysis (CFA) was used to test questionnaire validity because it is a useful approach for analyzing discriminant and convergent validity of a scale or an instrument (Hair *et al.*, 2010). The general rules of thumb for acceptance of a model using CFA include: CR > 0.7 (indicating reliability); AVE > 0.5 (indicating convergent validity); and MSV < AVE and ASV < AVE (indicating discriminant validity) (Hair *et al.*, 2010).

The outcomes of CFA, which are illustrated in Table 2, meet the level of acceptance and shown that model has the acceptable validity.

The CFA process resulted in the collapse of several of the scales into single factors (Figure 1). Based on this analysis, and including the Cronbach's alpha analysis explained above, the adjusted instrument was considered to be appropriately reliable and valid for the needs of the study.

Table 2 Summary of CFA outcomes and reliability and validity assessments

Factor	CR	AVE	MSV	ASV	Reliability	Convergent Validity	Discriminant Validity
Managerial Trust	0.824	0.583	0.053	0.017	✓	✓	✓
Commitment	0.854	0.597	0.071	0.026	✓	✓	✓
Unfairness	0.884	0.620	0.071	0.019	✓	✓	✓
Short-Term Strategy	0.937	0.600	0.018	0.007	✓	✓	✓
Business Performance	0.910	0.842	0.053	0.016	✓	✓	✓

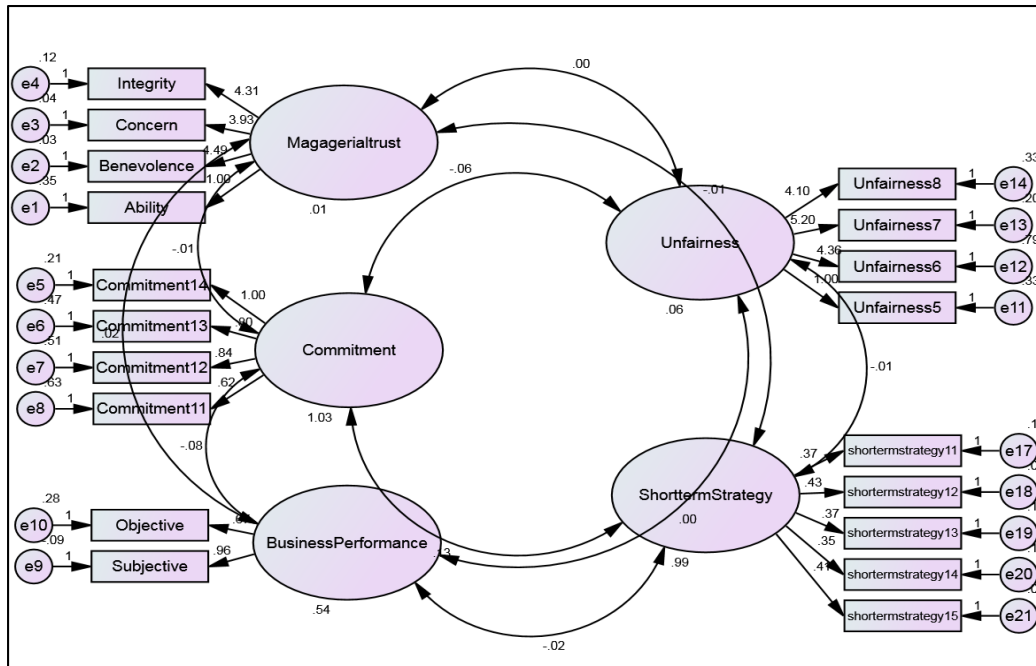


Figure 1 Confirmatory factor analysis model for the adjusted instrument

Respondent demographics and general information

The third category of preliminary analysis related to the demographic and firm information collected from

respondents. This information was not used for the inferential tests, which are described below. However, it does provide information about what kinds of businesses are included in the survey. The demographics and general information are demonstrated in Table 3.

Table 3 Summary of firm characteristics

	Number (n=388)	Percentage
Type of business		
Agriculture and Food Industry	123	31.7
Industrial goods	62	16.0
Consumer products	57	14.7
Financial	15	3.9
Resource	21	5.4
Real Estate and Construction	31	8.0
Service	74	19.1
Technology	5	1.3
Number of Employees		
≥15	6	1.5
16-25	106	27.3
26-50	200	51.5
51-200	61	15.7
More than 200	15	3.9
Number of company found		
6-10 years	47	12.1
11-15 years	108	27.8
16-20 years	52	13.4
More than 20 years	181	46.6
Return on Sale (ROS)		
Less than 10 million baht	18	4.6
10-100 million baht	304	78.4
101-400 million baht	55	14.2
More than 400 million baht	11	2.8
Value of company asset		
Less than 30 million baht	198	51.0
31-50 million baht	104	26.8
51-200 million baht	79	20.4
More than 200 million baht	7	1.8

Descriptive results

Descriptive analysis was conducted for all items in each of the scales used for the study. In this section, the descriptive results are examined and discussed. For this analysis, all items are discussed, including those that were eliminated following the initial analysis. Results from the items that were removed from the scales following the Cronbach's alpha adjustment for internal consistency are marked with a star in the tables, since these items were not included in the SEM analysis (which is discussed in the following section).

Attitudes to managerial trust (integrity, benevolence, concern, and ability)

Four sub-scales of managerial trust were measured in the instrument, including integrity, benevolence, concern, and ability (Table 4). For the SEM analysis, these four sub-scales were combined into a single scale of Managerial Trust. The items addressed different aspects of managerial activity that contribute to managerial trust within a family firm. Only one item from these four sub-scales (Ability1) was eliminated from the Managerial Trust scale. This means that these scales were some of the most initially reliable within the study.

There were nine items included in the Integrity sub-scale. The means for these items ranged between $M = 3.76$ ($SD = 0.683$) and $M = 4.17$ ($SD = 0.751$). This is a relatively narrow window, all of which fell into the "Agree" level of attitude based on the questionnaire. This indicates that in general, the respondents viewed the general level of integrity in the organization as relatively high, but not extremely high.

The Benevolence sub-scale consisted of seven items. Once again, these items were relatively similar in terms of their score, with all items falling into the "Agree" attitude level. However, there was less of a spread in means between these items than in the Integrity subscale. The lowest scoring item was $M = 3.92$ ($SD = 0.721$). The highest scoring item for Benevolence was $M = 4.18$ ($SD = 0.700$). This is similar to the highest score of the Integrity scale. Thus, Integrity and Benevolence can be said to be generally consistent with each other.

The third sub-scale was Concern. There were six items in this scale. As with Integrity and Benevolence, all of the items were in the Agree attitudinal range of the scale. There was also a relatively low range of difference between items. The lowest scoring item was $M = 3.89$ ($SD = 0.557$). The highest scoring item was $M = 4.05$ ($SD = 0.584$). This is a slightly lower high mean compared to the other two sub-scales discussed so far. However, as it is only about 0.13 points lower than the highest scoring item in Benevolence, it probably is not very significant.

Finally, the Ability subscale had three items, although the first item was removed from the scales prior to the SEM analysis. Similar to the other three sub-scales in the Managerial Trust scale, this subscale fell into the "Agree" attitude, and had a small difference between means. The lowest scoring item was $M = 4.03$ ($SD = 0.638$), while the highest scoring item was $M = 4.09$ ($SD = 0.722$).

Table 4 Summary of descriptive statistics for managerial trust variables

Statements	Mean	S.D.	Level of Attitudes
Integrity			
Employee thinks that you concern about everyone's well being	4.00	.68388	Agree
Employee thinks that you focus on sincerity in the relationship	4.01	.73657	Agree
Employee thinks that you always fulfill the promises	3.99	.71159	Agree
Employee thinks that you have integrity	4.01	.72245	Agree
Employee thinks that you until today never let down	3.90	.62728	Agree
Employee thinks that you treat fairly	4.02	.61806	Agree
Employee thinks that you are sincere team leader	3.76	.68334	Agree
Employee thinks that you work consistent and understandable	4.17	.75073	Agree
Employee thinks that you have desire to protect others' interest	4.07	.54744	Agree
Benevolence			
Employee thinks that you take opinions into account	3.98	.58382	Agree
Employee thinks that you respect their work	4.03	.63438	Agree
Employee thinks that you have positive attitudes	3.99	.62864	Agree
Employee feel at ease when discuss problems and difficulties with	4.14	.59820	Agree
Employee thinks that you will try to help in the event that difficulties that should occur	4.18	.69952	Agree
Employee thinks that you are available to train them	3.92	.72133	Agree
Concern			
Employee thinks that you have no attempt to take advantage	4.05	.58418	Agree
Employee thinks that you are not fearful to be professionally impaired	3.89	.55739	Agree
Employee thinks that you can share personal feeling with	3.99	.55682	Agree
Employee thinks that you always concern their personal interests	3.97	.67366	Agree
Employee thinks that you follow the rules	3.96	.66539	Agree
Employee thinks that you can compromise professionally	4.02	.67970	Agree
Ability			
Employee thinks that you have good reputation*	4.09	.72219	Agree
Employee thinks that your abilities can be trust	4.03	.63821	Agree
Employee thinks that you are competent	4.08	.67759	Agree

Item which is marked with * is not included in the SEM analysis because of the Cronbach's alpha adjustment.

Attitudes to commitment

The second scale was attitudes to Commitment (Table 5). Commitment was measured using the three-component model of organizational commitment (Meyer and Allen, 1991). The three components include affective commitment (how the respondent feels about the organization), continuance commitment (what the respondent feels he or she must do in regard to the organization), and normative commitment (the respondent's general beliefs about continuance in the organization) (Meyer and Allen, 1991).

This scale initially had 24 items, all but four of the items were eliminated following the Cronbach's alpha analysis. The reason for this elimination can be seen in the scales, with attitudes ranging from Disagree to Agree Strongly. The lowest scoring item in this scale was $M = 1.98$ ($SD = 0.909$). At the same time, the highest scoring item was $M = 4.10$ ($SD = 0.681$). Overall, the items involved with

affective commitment (items 25 to 32) were mostly scored as "Agree", with one item scored as "Neutral". The items involving continuance commitment (items 33 to 40) were also generally classed as "Agree" and "Neutral", though there was one "Disagree" item. The final class of items (items 41 to 48) was related to normative commitment. This was the lowest scoring class in general, with most items being identified as "Disagree", with one "Neutral" and three "Agree" items. Thus, it is reasonable to state that individuals showed most evidence of affective commitment and least evidence of normative commitment. The only items included in the scale following the adjustment for internal reliability were continuance commitment items (35 to 38). Of these items, the lowest scoring item was $M = 3.26$ ($SD = 1.069$). The highest scoring item was $M = 3.92$ ($SD = 1.111$). This suggests that the respondents do feel some level of continuance commitment toward the organization that is held in common.

Table 5 Summary of descriptive statistics for commitment variables

Statements	Mean	Standard Deviation	Level of Attitudes
I would be very happy to spend the rest of my career with this organization*	3.99	.66276	Agree
I enjoy discussing my organization with people outside it*	4.10	.68099	Agree
I really feel as if this organizations problems are my own*	4.09	.72785	Agree
I do not think I could become as attached to another organization as I am to this one*	4.08	.72133	Agree
I feel like part of the family at my organization*	3.89	.75304	Agree
I feel emotionally attached to this organization*	3.88	.81052	Agree
This organization has a great deal of personal meaning for me*	3.93	.73860	Agree
I feel a strong sense of belonging to my organization*	3.23	1.22003	Neutral
It would be hard for me to leave my organization right now, even if I wanted to*	2.37	1.16501	Disagree
My life would be disrupted if I decided I wanted to leave my organization now*	3.80	.96598	Agree
I am afraid of what might happen if I quit my job without having another one lined up	3.78	1.01601	Agree
It would be costly for me to leave my organization now	3.92	1.11198	Agree
Right now staying with my organization is a matter of necessity as much as desire	3.26	1.06897	Neutral
I feel that I have few options to consider leaving this organization	3.63	1.11373	Agree
One of the serious consequences of leaving this organization would be scarcity of available alternatives*	3.65	1.01160	Agree
One of the major reasons I continue to work for this organization is that leaving would require personal sacrifice-another organization may not match the overall benefits I have here*	2.98	1.00489	Neutral
I think that people these days move from organization to organization too often*	2.47	.88154	Disagree
I believe that a person must always be loyal to his/her organization*	2.97	1.03266	Neutral
Jumping from organization to organization seems unethical to me*	2.15	1.05081	Disagree
I believe that loyalty is important and therefore I feel a strong sense of moral obligation*	1.98	.90919	Disagree
If I got another offer for a better job elsewhere I would not feel it was right to leave my organization*	2.12	.72168	Disagree
I was taught to believe in the value of remaining loyal to one organization*	3.41	.99850	Agree
Things were better in the days when people stayed with one organization for most of their careers*	3.88	.61536	Agree
I think that wanting to be a company man or company woman is sensible*	3.96	.65394	Agree

Item which is marked with * is not included in the SEM analysis because of the Cronbach's alpha adjustment.

Attitudes to unfairness

The third scale considered in this analysis was the Unfairness (table 6). Unfairness related to aspects of organizational justice, including procedural and distributive justice, especially in regard to how the rules were applied to family members versus non-family members. The Unfairness scale initially included 12 items, although eight of these items (items 49 to 52 and 57 to 60) were eliminated following the Cronbach's alpha analysis. These items showed a wide range of attitudes and opinions expressed in the responses.

The lowest scoring item in the scale was $M = 2.03$ ($SD = 0.725$). The highest scoring item in contrast was $M = 4.16$ ($SD = 0.690$). However, both of these items were eliminated for internal consistency reasons. Of the remaining four items following the internal reliability adjustment, the lowest scoring item was $M = 3.06$ ($SD = 1.325$), interpreted as "Neutral". The highest scoring included item was $M = 4.08$ ($SD = 0.621$). The majority of responses regarding unfairness fell into the Neutral category, which suggests that the respondents were not on average to view their workplace as very fair or very unfair.

Table 6 Summary of descriptive statistics for unfairness variables

Statements	Mean	Standard Deviation	Level of Attitudes
Employees feel that they are treat unequally by the human resource policies*	4.02	.64280	Agree
Human resource policies leads to staffs' discouragement*	2.03	.72538	Disagree
The company is influenced by family members*	2.55	1.00111	Disagree
The influence of family members are not controlled well*	4.16	.68968	Agree
Family member staff have much more working time flexibility	4.08	.62124	Agree
Employees do not have enough flexible time to leave the company to do their personal activities	3.18	1.37155	Neutral
Seniority play more significant role than the staffs' performance for annual assessment	3.06	1.32520	Neutral
Staffs feel that they are assessed their annual performance unfairly	3.14	1.14110	Neutral
Staffs' performance is not strictly assessed by performance based assessment*	4.08	.58518	Agree
The top management team of family businesses constantly shows the lack of responsibility to their employees*	4.02	.66246	Agree
They always pass the problems to their subordinates*	3.92	.61532	Agree
Staffs always realize that they can lose their job*	4.01	.67812	Agree

Item which is marked with * is not included in the SEM analysis because of the Cronbach's alpha adjustment.

Attitudes to short-term strategies

The fourth predictor scale for this study was Short-Term Strategies (Table 7). This scale measured the extent to which the members of the organization were likely to take a short-term view or micromanage the organization. There were initially 15 items in this scale, of which 10 items were removed following internal consistency adjustment. The items that were removed included items 61 to 70, with items 71 to 75 remaining in the scale. Responses to items in this scale (considering all items) ranged across the full scale of possible attitudinal interpretations from Strongly Disagree to Strongly Agree. The lowest scoring item was $M = 1.68$ ($SD = 0.469$).

This item both has a low mean and a lower than usual standard deviation, demonstrating that the firms represented in the study were highly unlikely to have a plan for three or more years of operation. The item that was mostly strongly identified upon was $M = 4.57$ ($SD = 0.496$). This also shows a relatively low standard deviation, indicating a high level of agreement that shared leadership needs to be taken into account for succession. This item was also included in the remaining items following adjustment. The lowest scoring item that remained following adjustment was $M = 4.49$ ($SD = 0.500$). Thus, all of the items remaining in the Short-Term Strategies scale were relatively highly scoring compared to those that were eliminated.

Table 7 Summary of descriptive statistics for short-term strategy variables

Statements	Mean	Standard Deviation	Level of Attitudes
The prior generations do not let their successors to solve problems by themselves*	3.94	.72894	Agree
The prior generations always influence the next generations' daily operation with noticing them*	1.79	.69078	Strongly disagree
Family companies' goal is to continuously expand their companies in sales and production*	2.12	.71126	Disagree
The company want to gain the positively economic advantage even if it has to take risk*	2.71	1.06881	Neutral
The companies always invest in new technologies*	4.03	.63029	Agree
The company has the lowest cost of production comparing with its competitors*	4.00	.62876	Agree
Companies that apply short-term strategy try to develop strategy to attain their goals within one year*	2.04	1.05705	Disagree
The company has the 3 years plan or more*	1.68	.46888	Strongly disagree
Family members intend to hold less share of the companies to increase long term competitiveness*	2.13	.69986	Disagree
The family wealth is always taken into an account when they do the business*	2.56	1.00097	Disagree
Family members have good relationship	4.49	.50054	Strongly agree

Supply of the business knowledge must be taught to successors by letting them to involve with companies when they are young	4.49	.50048	Strongly agree
Successors want to continue the family business	4.56	.49647	Strongly agree
Next generation has the competence and capability to run the business	4.53	.49984	Strongly agree
The shared leadership in family firm needs to be taken into an account when family business plans for succession	4.57	.49613	Strongly agree

Item which is marked with * is not included in the SEM analysis because of the Cronbach's alpha adjustment.

Attitudes to business performance (objective and subjective performance)

The outcome scale for this questionnaire was Business Performance (Table 8). Business Performance was split into two distinct categories, Objective Business Performance and Subjective Business Performance. Objective Business Performance was primarily concerned with financial performance of the firm, while Subjective Business Performance was concerned with qualitative aspects such as leadership, decision-making, teamwork and stress. The Objective and Subjective Performance scales had noticeably different performance in terms of their internal consistency, and thus are discussed separately.

The Objective Business Performance sub-scale initially had eight items, of which four were eliminated during the internal consistency adjustments. Items that were eliminated following Cronbach's alpha included items 76 to 78 and item 83. Overall, perceptions of objective business performance were strong, which all items falling into the Agree or Strongly Agree attitudinal

categories. After the removal of items, the lowest remaining item was "Production growth increases" ($M = 3.44$, $SD = 1.046$), while the highest remaining item was "Return on assets (ROA) increases" ($M = 4.23$, $SD = 0.419$). Thus, there was a relatively high range of Objective Business Performance indicators.

The Subjective Business Performance sub-scale included ten items and none of the items were eliminated. The lowest scoring item was $M = 3.44$ ($SD = 1.073$), while the highest scoring item was $M = 4.31$ ($SD = 0.480$). However, this scale is noticeably different from others because it has two clusters of responses. Most of the responses (items 84 to 90) had a relatively narrow range from $M = 3.44$ to $M = 3.66$. Nevertheless, three items (91 through 93) had means above 4.00. The highest scoring item (company reputation) was noticeably higher than the other two items in this scale. This may not be surprising given that respondents are likely to have a positive view of their family businesses' reputations, but it is surprising that it was so much higher than the other subjective measures of performance.

Table 8 Summary of descriptive statistics for business performance variables

Statements	Mean	Standard Deviation	Level of Attitudes
Objective			
Sales growth increases*	4.33	.47171	Strongly agree
Market share increases*	4.18	.42338	Agree
Profit growth increases*	4.14	.39113	Agree
Return on assets (ROA) increases	4.23	.41931	Strongly agree
Return on investment (ROI) increases	3.54	1.00933	Agree
Production growth increases	3.44	1.04611	Agree
Growth in number of employees increases	3.48	.97883	Agree
Low turnover rate decreases*	2.82	1.11917	Neutral
Subjective			
Delivery on time	3.44	1.07294	Neutral
Quick response to customer's needs	3.49	1.02543	Agree
Quick response to difficult situation	3.50	1.01539	Agree
Quick response to customer's complaint	3.56	.95017	Agree
No complexity in your organizational structure	3.54	.94601	Agree
Procedures of the organization are clear	3.66	1.10489	Agree
There are no disagreements in your group frequently	3.54	1.04219	Agree
No Stress from work often influences personal life	4.05	.58174	Agree
Your family business has a good reputation	4.31	.48027	Strongly agree
Your family business can be sustainable	4.16	.37150	Agree

Item which is marked with * is not included in the SEM analysis because of the Cronbach's alpha adjustment.

Structural equation modeling (SEM) analysis

Goodness of fit of the model

Tests included chi-square statistic (χ^2), Goodness-of-fit index (GFI), Adjusted Goodness-of-Fit Index (AGFI), Normal Fit Index (NFI), Incremental Fit Index (IFI), Comparative fit index (CFI), Root

Mean square Residuals (RMR), and Root Mean Square Error of Approximation (RMSEA). These selections were based on standard practice for assessment of SEM model fit (Hair, *et al.*, 2009; Hu and Bentler, 1999; Shumacker and Lomax, 2010). The outcomes of the goodness of fit tests are summarized in Table 9, while the statistic values of Goodness of fit are

illustrated in Table 10. The outcomes are mixed, with two indicators (AGFI and RMSEA) not meeting the established acceptance thresholds. However, due to

reasons discussed below, it was determined that the outcomes are adequate to accept the default model.

Table 9 Summary of goodness of fit test outcomes

Goodness of fit index	Threshold for acceptance	Default model?	Independence model?
Chi-square	$p \leq 0.05$		
CMIN/DF	≥ 0.90	Yes	Yes
GFI	≥ 0.90	Yes	No
AGFI	≥ 0.90	Marginal	No
NFI	≥ 0.90	Yes	No
IFI	≥ 0.90	Yes	No
CFI	≥ 0.90	Yes	No
RMR	< 0.05	Yes	No
RMSEA	< 0.05	No	No

Table 10 Outcome of Goodness of fit statistics for relevant items

Index	Default model	Saturated model	Independence model
CMIN/DF	2.155		22.893
RMR	0.036	0.000	0.216
GFI	0.923	1.000	0.456
AGFI	0.899		0.396
NFI	0.920	1.000	0.000
IFI	0.955	1.000	0.000
CFI	0.955	1.000	0.000
RMSEA	0.055		0.238

The first test was the CMIN/DF test. This test represents the ratio of CMIN to DF in the default and independence models. As the table shows, in both the default and independence models the minimum threshold of $\text{CMIN/DF} \geq 0.90$ was met. Thus, from the CMIN/DF perspective the outcome was acceptable.

The next set of tests included RMR, GFI, and AGFI. The rule of thumb for acceptance for these tests was: $\text{RMR} < 0.05$, $\text{GFI} \geq 0.90$, $\text{AGFI} \geq 0.90$. In the default model, RMR and GFI met the

criteria, while AGFI (0.899) was just on the threshold of acceptance. However, none of the criteria were adequate in the independence model. Thus, for this set of criteria, the default model was acceptable.

The next set of criteria included the baseline comparisons, including NFI, IFI, and CFI. For all three of these items, the acceptance threshold was set at ≥ 0.90 based on standard benchmarks (Hair, *et al.*, 2009). In the default model, all three

of the factors were accepted, though they were not in the independence model.

RMSEA was the final criterion for goodness of fit. The threshold for this factor was $RMSEA < 0.05$. However, the actual outcome in the default model was $RMSEA = 0.055$, which did not pass the threshold test.

The goodness-of-fit tests have mixed outcomes. Most of the factors do indicate acceptance of the default model. There are two exceptions, including AGFI (which was marginally low at $AGFI = 0.899$) and RMSEA (marginally high at $RMSEA = 0.055$). Thus, there was a question as to whether to adjust the default model or to use the default model as stated. In order to make this decision, the researcher consulted the literature on each of the factors that did not meet the pre-established threshold. For RMSEA, which is a relative measure of fit, there are varying recommendations for acceptance. For example, Hu and Bentler (1999) actually recommend $RMSEA \leq 0.06$ as the acceptance threshold. Thus, the model would pass the goodness of fit test based on this criterion. In regard to AGFI, other researchers recommend against using this as a standalone goodness-of-fit criterion because it is sensitive to sample size and factor loadings (Hooper, Coughlan and Mullen, 2008). Given this sensitivity and the relatively small sample size of this study, and the outcomes of the other goodness-of-fit indices, the researcher considered that the AGFI outcome was high enough to indicate adequate goodness of fit. Based on this analysis, the researcher determined that the default model had adequate goodness of fit for the research.

SEM model outcomes

As discussed above, the default model that was proposed in the research had an adequate fit to the data. Thus, the next task is to analyze the actual model outcomes. The SEM model shown in Figure 2. Table 11 summarizes the coefficients associated with each of the relationships and paths shown in the model. This table eliminates relationships associated with individual items, although multi-item sub-scales (Integrity, Concern, Benevolence, Ability, Objective Business Performance and Subjective Business Performance) are retained.

Discussion of the model can begin with Managerial Trust. The four dimensions of Managerial Trust (Integrity, Concern, Benevolence, and Ability) were found to have a significant effect. However, Integrity, Concern, and Benevolence have substantially higher effects on Managerial Trust than Ability. Managerial Trust was found to have a moderately negative effect on both Unfairness and Commitment. Managerial Trust $>$ Unfairness relationship was expected, since it is commonsense to believe that individuals will perceive more unfairness if they do not trust their manager. However, the negative relationship between Managerial Trust and Commitment is surprising. One explanation is that the only items remaining in the Commitment scale following Cronbach's alpha adjustment were continuance commitment items. These items reflect an economic or other requirement to remain with the firm, which often becomes more dominant if employees are unsatisfied (Meyer and Allen, 1991). Thus, this is not inconsistent with what was actually measured.

The second relationship that can be identified is a negative relationship between Unfairness and Commitment. This relationship is consistent with expectations, since it is expected that employees with a higher view of organizational unfairness would also have a lower level of commitment.

Commitment had a positive relationship to Short- Term Strategy and a negative relationship to Business Performance. Once again, it should be considered that the Commitment scale had only continuance commitment items included. Furthermore, the majority of items included in the “Short- term strategy” scale were those that were more oriented toward longer- term strategy such as succession planning. Thus, it is potentially not surprising that this relationship existed. The same reasons hold for the relationship between commitment and business performance. Short- term business strategy had a mildly negative relationship to business performance.

However, this effect is very small compared to other effects. The ultimate outcome variable of the model was Business Performance. As expected, both Objective and Subjective business performance were related to the overall Business Performance variable, with Objective business performance having a somewhat larger effect than Subjective business performance. As previously noted, Commitment and Short- Term Strategy were the main factors that had a direct relationship to Business Performance. However, Unfairness and Managerial Trust both have an indirect relationship to Business Performance, moderated by Commitment. Thus, all of the factors in the model had either a direct or indirect relationship to Business outcomes.

Table 11 Summary of coefficients within the model

Factor	Coefficient
Managerial Trust	
Managerial Trust -> Integrity	4.31
Managerial Trust -> Concern	3.94
Managerial Trust -> Benevolence	4.49
Managerial Trust -> Ability	1.00
Managerial Trust -> Unfairness	-0.17
Managerial Trust -> Commitment	-0.79
Unfairness	
Unfairness -> Commitment	-1.15
Commitment	
Commitment -> Short-Term Strategy	0.14
Commitment -> Business Performance	-0.16
Short-Term Strategy	
Short-Term Strategy -> Business Performance	-0.06
Business Performance	
Business Performance -> Objective	0.66
Business Performance -> Subjective	0.48

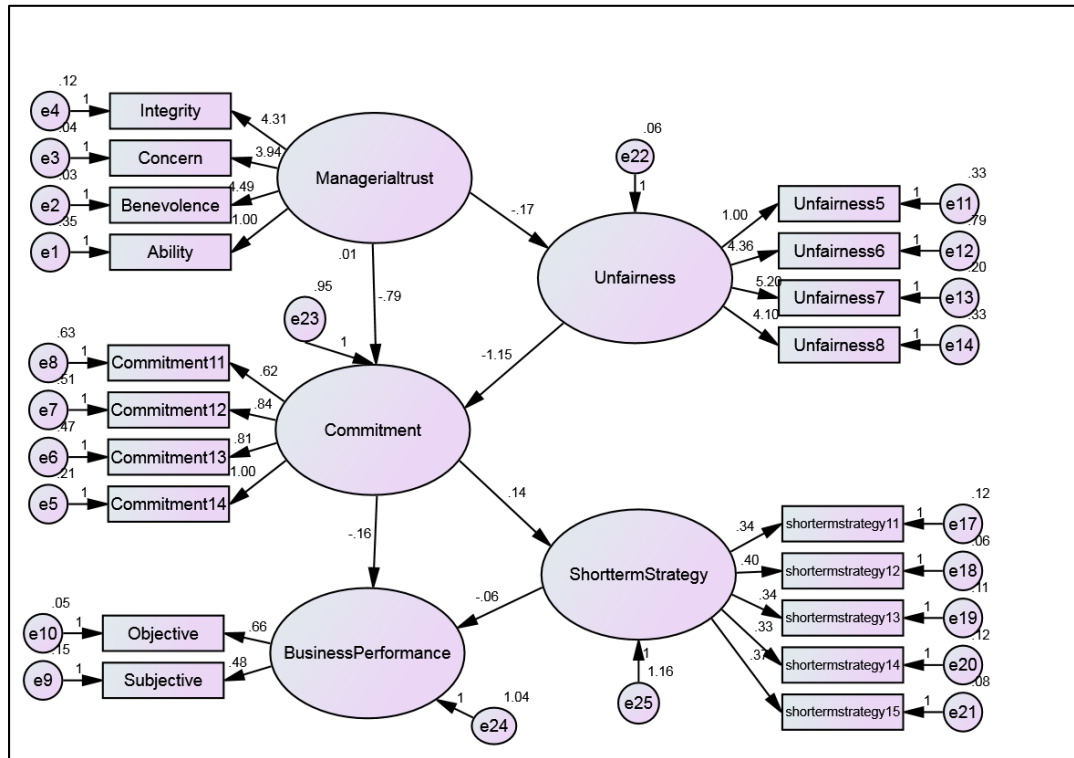


Figure 2 Structural equation model (SEM)

Discussion

There were four propositions for this research. These propositions are summarized in Table 12, along with their outcomes.

Table 12 Outcome of research prepositions

Proposition	Statement	Outcome
1	A higher level of managerial trust leads to a higher level of commitment.	Not accepted
2	The relationship between trust and commitment is moderated by unfairness.	Accepted
3	A higher level of owner's commitment leads to higher business performance.	Not accepted
4	The relationship between commitment and business performance is weakened by short-term strategy.	Accepted

Proposition 1: Managerial trust and commitment

The first proposition stated that there would be a positive relationship between managerial trust (incorporating integrity, concern, benevolence, and ability) and commitment. However, the actual relationship that was found was a moderately strong negative effect of managerial trust on commitment (-0.79). This raises the question of why this negative effect was found.

There was evidence for the relationship between managerial trust and commitment in the literature. For example, several studies have found that managerial practices such as managerial style and endowment have a positive effect on the employee's commitment (Janssen, 2004; Luthans, 1998). Employees have also been shown to have a higher level of commitment in situations where management is trusted to be ethical (Hunt, *et al.*, 1989; Kelly and Dorsch, 1991; Zhou, 2014). Thus, it was expected that commitment would be positively related to managerial trust.

An answer for the reason why managerial trust was not positively related to commitment can be found in the literature on commitment. Organizational commitment is commonly modeled as a three-component structure, including affective, normative, and continuance component (Meyer and Allen, 1997). These are commonly referred to as what employees *want* to do, what they feel they *should* do, and what they feel they *must* do (Meyer and Allen, 1991). While all of these dimensions do reflect an intention to stay with the firm, they have different origins and influences. In fact, a common

critique of the three-component model is that continuance commitment is a *negative* commitment – that is, the employee cannot find any better reason to stay with the organization other than the cost of changing organizations such as difficulty finding a job or lost pay (Solinger, Van Olffen and Roe, 2008). At the same time, normative and affective commitments are positive components, offering positive reasons to stay with the organization (Solinger, *et al.*, 2008). However, the only items that remained after adjustment were those related to continuance commitment. Thus, the present study effectively only measured relationships to continuance commitment. This was problematic because multiple studies have shown that normative commitment has different antecedents and outcomes than other forms of commitment (Chang, Chi and Miao, 2007; Park and Rainey, 2007; Solinger, Van Olffen and Roe, 2008). In retrospect, using a multi-component scale for commitment, designed using the same approach as the Managerial Trust factor, may have been more appropriate to capture the relationship of Managerial Trust on the individual's commitment levels.

Proposition 2: Trust, commitment and unfairness

The second proposition of the research was that unfairness would have a moderating effect in the relationship between trust and commitment. This proposition can be accepted, as shown by the model; the relationship between Managerial Trust and Unfairness and Unfairness and Commitment was higher than that between Managerial Trust and

Commitment (-0.79). Thus, perceptions of unfairness are likely to lessen Commitment even in cases where Managerial Trust was at the same level. A review of the literature demonstrates some of the reasons for this relationship. It also provides some insight into how this relationship could affect the performance of the small business.

Several studies have supported that there would be a moderating effect of unfairness, or negative perceptions of organizational justice. For example, unfairness in human resource policies, management, and leadership style can affect organizational commitment and other factors (Swierczek and Onishi, 2003). A further study has shown that fairness in compensation affects organizational commitment (Moriarty, 2014). There are some individual factors such as personality types and moral orientations that do influence how much the perception of unfairness in the management activities affect organizational commitment (Falk and Fox, 2014). It can also discourage employees, making employees feel they are being discriminated against (Maley, 2011; Swierczek and Oishi, 2003). The findings of this study are consistent with the literature and the expected relationships.

This finding is particularly important in terms of its implications for the family business. One of the particular weaknesses of the family business is that it is prone to perceptions of unfairness because of the role and special privileges of the family members in the organization (Collins and O'Regan, 2011). Human resource policies may often prioritize the interests of family members, for example by promoting

family members over other employees or offering preferential treatment (Srivastava and Dhar, 2016). Family members may be hired even though they are not qualified for their role (Lutz and Schraml, 2012). Furthermore, non-family members may face stricter working conditions such as less flexible working hours (Beham and Drobnic, 2010). This unfairness can be introduced through the management style of family firms (Efferin and Hartono, 2015). For example, leaders of family firms may blame subordinates when the firm encounters difficulties, even if they control decision making (Lussier and Sonfield, 2006). Family businesses, especially older family businesses with multiple generations, may be highly complex and there may be different units and control structures that are treated differently (Lutz and Schraml, 2012). Thus, there are myriad ways in which the family firm can be perceived as unfair by non-family members, even if it is not deliberately structured to be unfair.

The literature review also suggests that there are ways that family firms can avoid unfairness perceptions and thus reduce the possible impact on organizational commitment and other factors. For example, firms can use professional leadership and train family members professionally, rather than promoting due to family membership (Zachary, 2011). Family members should also be subjected to the same human resources policies as non-family members (Venninga, 2002). The firm should also take succession planning seriously, making sure that *either* family members are appropriately trained as professional managers *or* the management of the firm transitions to a professional manager (De Massis, Chua

and Chrisman, 2008). Family firms can also structure spin-off firms in order to effectively plan succession and manage conflicts between family members, which will reduce the level of conflict and perceived unfairness (Au et al., 2013). Thus, there are many ways that the family firm can be structured that will reduce perceptions of unfairness in the family firm. In conclusion, the finding in this literature does provide a useful addition to the literature.

Proposition 3: Commitment and business performance

The third proposition stated that there would be a positive relationship between commitment and business performance. The literature generally supported a positive relationship between organizational commitment and business performance (Zhou, 2014; Parayitam and Dooley, 2007). In fact, these studies suggested that the organizational commitment of employees and owners was one of the major competitive advantages that small firms hold. Other studies have also shown a positive relationship. For example, one study showed that corporate ethics contributed to high levels of organizational commitment, which in turn was associated with improved financial performance (Chun et al., 2013). Another study also showed that organizational culture was associated with organizational commitment, which again affected organizational financial performance (Awadh and Alyahya, 2013). A study from Turkey also supported the importance of organizational commitment on the firm's performance in a developing country

context (Demirbag et al., 2014). This study demonstrated that high-performance work practices (HPWS) have a positive effect on organizational commitment and organizational performance (Demirbag, et al., 2014). Thus, there was ample evidence for the positive relationship between organizational commitment and organizational performance. However, this was not supported empirically. As with Proposition 1, there was actually a small negative relationship found between the two factors. Given the level of support for the positive relationship in the literature review, it is likely that the same instrumentation problem that is implicated for Proposition 1 also caused the same error in Proposition 3.

There are a number of studies that specifically point to differential effects on business performance between continuance commitment and normative and/ or affective commitment. For example, one study found that while affective commitment was positively associated to innovative behavior in retail employees and managers, continuance commitment was negatively associated with the same behaviors (Jafri, 2010). Continuance commitment may actually be associated with negative conditions in the organization, which create feelings that the only reason to stay with the organization is the cost of leaving (Conway and Monks, 2009). Thus, high continuance commitment can actually be indicative of poor conditions in the firm, not positive ones. Thus, it is not surprising that the current study's findings are different from the general trend of a positive relationship between organizational commitment and business performance, since the only one dimension of commitment was included.

Despite the findings of this study, the literature strongly supports the importance of organizational commitment for organizational performance, both specifically in the case of family businesses and generally in the organization. Not least, organizational commitment is well known to reduce employee turnover, which is important for cost reduction and skill retention (Avey et al., 2011). Furthermore, organizational practices that contribute to organizational commitment, such as HPWS, can increase the firm's technical capabilities and performance by helping it to attract highly qualified and skilled employees (Demirbag, *et al.*, 2014). Thus, even though this study did not explicitly identify organizational commitment as a positive factor (instead demonstrating a weak negative effect on business performance), this should still be a concern for the firm to make sure that it can ensure organizational commitment for its employees. There are a number of ways that the firm could do so. As discussed above, the firm could help to promote perceptions of fairness within the firm. The firm could also promote and enforce an ethical code that is congruent with the ethical norms of its organizational members, to help ensure firm employees feel the firm is ethically consistent (Chun, *et al.*, 2013) and make sure that the organizational culture is positive and welcoming (Awadh and Alyahya, 2013). Taking these actions can help ensure that the organization can generate high levels of organizational commitment in its employees and leaders.

Proposition 4: Commitment, business performance, and short-term strategy

The final proposition argued that short-term strategy would be a moderating factor in the relationship between commitment and business performance. As examination of the SEM structure shows, this does appear to be the case, with the sum of relationship between commitment and short-term strategy and short-term strategy and business performance (-0.22) being somewhat higher than the direct relationship between commitment and business performance (-0.16). This effect is relatively small, but it still demonstrates that the perception of short-term strategy for the firm is likely to exacerbate the negative relationship between commitment and business performance. However, as stated above, it is uncertain that the same relationship would be found for a true three-component model of organizational commitment.

Short-term strategy is another of the particular problems of family businesses, somewhat paradoxically since the family business is often founded and passed over a longer period of time than non-family businesses. For example, there is some considerable evidence that family businesses are more likely to focus on short-term strategies and short-term performance needs compared to non-family businesses (Braun, *et al.*, 2016; Lutz and Schraml, 2012; Sabourin, 2015). These authors have explained that the family business may achieve better results in the short term than non-family businesses. However, it may also compromise the long-term market performance and activity of the family

firm (Lutz and Schraml, 2012; Banker, *et al.*, 2014). A historical study of Thai firms has shown that short-term planning is common in the study context (Swierczek and Onishi, 2003). Thus, short-term planning is a common practice in family businesses, including Thai businesses.

The family firm also has unique challenges for long-term planning compared to non-family firms. One of these challenges is succession planning, which is uniquely complicated in family firms because of the preference for family members and the internal relationships and conflicts that can affect succession choices (Bizri, 2016; Duh, 2014; Elsaid and Ursel, 2011; Hamilton, 2011; Laakkonen and Kansikas, 2011; Maciel, *et al.*, 2015). Among other complexities is the fact that succession planning in the family organization is more of a process than a single event; the planned successors of the firm must be appropriately trained and kept within the organization, and support of key family members must be achieved (Maciel, *et al.*, 2015). Thus, unlike in non-family firms, this can take up to 10 to 20 years or even longer (Cater and Justis, 2010; Joshi and Srivastava, 2014). Later generations of the family firm tend to be more effective at this planning process, while first generation family firms are often not as effective (Laakkonen and Kansikas, 2011). Thus, succession planning is one of the very long-term planning concerns the firm needs to consider.

In summary, this research did support the negative effect of short-term planning in the relationship between organizational commitment and the firm's performance. As the literature review explains, this can

be particularly problematic for family firms because despite their long-term orientation they tend to plan for the short term. The family firm also faces some special challenges in terms of long-term planning, such as a long horizon for succession planning to make sure that family members are properly trained and experienced. This suggests that family firms need to make an extra effort to make sure that long-term strategic concerns as well as short-term performance remains a priority for the firm.

Conclusions and recommendations

Conclusion

This research began with a single research question: *How do unfairness and short-term strategy affect the business performance of Thai family companies?* In order to explore the research question, a theoretical model and four propositions were derived from the literature on family business management. The researcher then conducted a survey of Thai family firms ($n = 388$). These firms came from a wide range of industries, though the most dominant were agriculture, management, and industrial goods. Most of the companies were older than 20 years, but still relatively small, with most having between 16 and 50 employees. They also had relatively low levels of sales and assets, meaning that most firms could be classified as small firms based on the definition from the Office of Small and Medium Enterprises.

The first proposition of the research stated that there would be a positive relationship between managerial trust and organizational commitment of the respondents. This proposition was based on the literature review, which suggested that aspects of managerial trust such as perceptions of integrity, benevolence, concern, and ability on the part of organization managers would have a positive effect on organizational commitment. However, the empirical evidence did not support this relationship, instead finding a moderate negative relationship between managerial trust and organizational commitment. This was contrary to the expected findings, but the researcher does not believe it is due to peculiarity of Thai family businesses, but rather to an instrumentation error that excluded all items except continuance commitment items from the commitment questionnaire. Since continuance commitment is actually associated with negative organizational conditions (the employee cannot find a better reason to leave the organization), it is unsurprising that this error would be negative.

The second proposition argued that unfairness would have a moderating effect in the relationship between managerial trust and organizational commitment. This was supported by the literature review, which pointed out that unfairness is particularly a problem for family firms because of differential treatment of family members and non-family members. This proposition was upheld, with an increase in the negative relationship when taking unfairness into account.

The third proposition stated a direct positive relationship between

organizational commitment of the firm owners or managers and business performance. The literature review supported this relationship, arguing that organizational commitment was a significant competitive advantage for small firms and was absolutely critical for family firms, whose principal owners and managers must devote significant personal resources to the organization. However, as with the first proposition, this finding was not upheld. Instead, there was a weak negative relationship between organizational commitment and performance. The reasons for this are the same as the first proposition.

The final proposition argued that short-term strategies would have a moderating effect between organizational commitment and business performance. The literature review suggested that short-term strategies were a particular problem of family firms, with the exception of succession planning, and that it could affect organizational performance. This proposition was upheld, with a much higher negative relationship when this factor was taken into account.

In conclusion, it is clear that managerial trust, organizational commitment of leaders, perceptions of unfairness, and short-term strategies do have a relationship to the performance of family firms in Thailand. In response to the research question, the answer is that unfairness and short-term strategies have a negative effect.

Research Implications

There are two different types of research implications of this study. The first is

practical implications for Thai family firms. The second is academic implications from the novel findings of this research.

The most important findings for Thai family firms relate to the role of unfairness and short-term strategy in reducing the effect of organizational commitment. Family firms, especially small family firms and younger firms, depend on organizational commitment of employees and family members in order to survive. In fact, this is one of the main sustainable competitive advantages of the family firm. However, this research showed that conditions that are commonplace for family firms can erode organizational commitment and weaken its influence on the firm's performance. For example, unfairness, especially as relates to treatment of family employees versus non-family employees, had a negative impact on the relationship between managerial trust and organizational commitment. Short-term strategies had a similar negative impact on the relationship between organizational commitment and the firm's performance. The most important recommendation based on this finding is that the family firm *must* go out of its way to implement fair organizational policies and apply them equally to family and non-family members, and to focus on long-term rather than short-term strategies, in order to ensure organizational commitment and firm performance.

This study also has implications for the academic literature, since it did have some novel findings. One of these findings was inadvertent, but is still useful. Specifically, it demonstrated that continuance commitment does have a

negative relationship to perceptions of managerial trust and also to firm performance. This upholds the arguments of some authors who have stated continuance commitment to have a fundamentally different relationship to the organization than affective or normative commitment (Solinger, *et al.*, 2008). Thus, there are grounds to examine further whether family firms that display a high level of continuance commitment, but low levels of other forms of commitment, actually have managerial problems and issues. This was not actually the case in this study, since the descriptive results did identify moderately high affective commitment. However, it is still a finding of interest, especially given that continuance commitment is rarely studied on its own. Another novel finding relates to the effect of unfairness and short-term strategy on the firm's performance. These findings are interesting because they are characteristics peculiar to family businesses, and both were found to have negative effects.

Research limitations

This empirical study has been conducted carefully. The related literatures are reviewed cautiously to support the studied variables and their relationships. Additionally, the research methodology has been developed with the awareness of the researcher's own judgment. Nevertheless, there are some limitations of the research.

The biggest limitation in this study is the inadvertent exclusion of affective and normative commitment items from the Commitment scale, which limits the study's model of organizational

commitment to only continuance commitment. As discussed earlier, this is a significant limitation because continuance commitment has different characteristics than other forms of commitment, and high levels of continuance commitment are associated with problematic organizations, rather than those that attain high organizational commitment overall. This does *not* imply that the firms in the study overall had low levels of other forms of commitment – in fact, the descriptive statistics indicate that levels of affective commitment were moderately high (though normative commitment was lower). Instead, it is an artifact of the study design that did not become clear until the results were analyzed.

There are also some other limitations. One of these limitations is related to the perception of management trust scale, which reflects the leader's perception of how much their employees trust them rather than the employee's actual trust perceptions. While this does not invalidate the results of the study, it is important to be clear which perspective is being identified to avoid misunderstandings and errors.

Some additional limitations are placed by the study design. The study was cross-sectional, meaning that results only reflect the time of data collection. The study also does not reflect conditions of small business outside Thailand, which could be significantly different. These limitations do not change the usefulness of the study, but should be kept in mind when generalizing.

Recommendations for future research

There are some recommendations from future research that can be made from aspects of this research that could not be fully explored because they fell outside the scope of the study³², or which emerged from gaps in the literature. One of these recommendations for future research is more examination of the organizational commitment dynamic in the later generations of family firms. One of the clear differences between the founding generation and future generations of the family firm is that while the founding generation *must* show high organizational commitment in order for the firm to survive, the later generations may have lower levels of organizational commitment and still continue to support the organization. A better understanding of how and why lowered organizational commitment occurs and how it affects the organization in later generations would be helpful in explaining the impact of organizational commitment on the firm. Another opportunity for future research lies in the use of short-term strategies in the family firm. The literature is somewhat contradictory on this point, indicating that on the one hand the operational strategies of the firm are short-term and on the other hand the firm may spend as much as 10 to 20 years in succession planning. This suggests that there are different strategic levels under consideration. However, there has been relatively little research into why short-term operational strategies are in use by family firms, and whether these operational strategies may vary by generation. Instead, most of the research in this area is relatively superficial,



comparing their use to non-family firms or simply remarking on their existence. This calls for a better explanation of how and why short-term strategies emerge in

family firms, and what it means for the family firm in terms of survival and growth.

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FACTORS AFFECTING FOREIGN TOURISTS' SATISFACTION AND WILLINGNESS TO PAY MORE FOR VISITING BANGKOK

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Abstract

The purpose of this research was to investigate factors that affect tourists' satisfaction and willingness to pay higher fees for visiting Bangkok. The population sampled in this study consisted of tourists who have visited Bangkok. Data was collected during May and June 2016, and it was analyzed using regression analysis. It was found that the tourists' perceptions of destination image, perceived value, and experience quality had a significant effect on the level of their satisfaction, which in turn has a significant effect on their willingness to pay more on travel. These findings could help tourism sector-based businesses better understand destination competition, and find ways of increasing visitors' satisfaction and their willingness to pay higher fees.

Keywords: satisfaction, willingness to pay more, Bangkok tourism

Introduction

In recent decades, there has been a steady rise in the number of tourists. This is due to increasing personal incomes, the expansion of low-cost airlines, more robust and reliable transportation systems, and an advancing information network (Lipman, 2007). The rise in low-cost airlines has enabled more people to travel, and an evolving information technology network has enabled them to select products and services of a destination at reasonable prices.

Tourism is fast becoming a mainstay industry of Thailand's economy. In 2014, tourism contributed 19.3% to the country's national GDP and 14.1% of total employment. It has been predicted that these could rise to 25.8% and 20.2%

in 2025, respectively (World Travel and Tourism Council, 2015). According to primary data published by The Ministry of Tourism and Sport of Thailand, in recent years there has been a surge in the number of international tourists visiting Thailand: this peaked in 2013 at 26.5 million; in 2014, this had declined slightly to 24 million.

Thailand has an abundance of natural and cultural tourist attractions, as well as a wide variety of festivities, shopping venues and authentic cuisines, all of which attract a great many international visitors every year. The numbers of international tourists from different regions around the world visiting Thailand during the years 2012 to 2015 are listed in Table 1 below:

Table 1 International tourist arrivals to Thailand by areas during 2012-2015

Year	East Asia	Europe	The Americas	South Asia	Oceania	Middle East	Africa	Total
2012	12,525,214	5,650,619	1,083,433	1,286,861	1,046,755	605,477	155,544	22,353,903
2013	15,911,375	6,305,945	1,166,633	1,347,585	1,021,936	630,243	163,008	26,546,725
2014	14,603,825	6,161,893	1,099,709	1,239,183	942,706	597,892	164,475	24,809,683
2015	19,871,773	5,629,122	1,235,095	1,403,977	921,355	658,129	161,640	29,881,091

Source: Ministry of Tourism and Sport of Thailand - tourist statistics for 2012-2015.

As Thailand's capital city, Bangkok is the center of Thailand's politics, economy, culture and cuisine (Tourism Authority of Thailand, n.d). Bangkok has received many awards, including the "World's Best City Award" in 2013, and the "Best City in Asia" award in every year from 2005 to 2013 (except in 2009) (The Nation, 2013). According to a survey by Travel and Leisure magazine,

Bangkok was listed as one of the top ten best cities in the world for the second time in 2015 (Travel and Leisure, 2015).

Recently, the head of the Thai tourism authority proposed to charge all foreign tourists 360 baht each time they enter the country, whether by air, land or sea. The governor said that the purpose of this surcharge is to raise revenue for

maintaining and improving tourism facilities (Charuvastra, 2016). The policy amounts to an extra travel cost for foreign tourists, and might discourage some tourists from visiting the country.

According to the Travel and Tourism Competitiveness Report (World Economic Forum, 2015), political unrest and terrorism-related violence have more detrimental effects on tourism receipts

than on tourist numbers. When these problems arise, the tourist profile changes, and tourists become more price-sensitive. In 2008, there were violent clashes in Thailand: consequently, the average expenditure per tourist fell by 9% (World Economic Forum, 2015). The change in average expenditure per tourist visiting Thailand from 2008 to 2009 is shown in Figure 1:

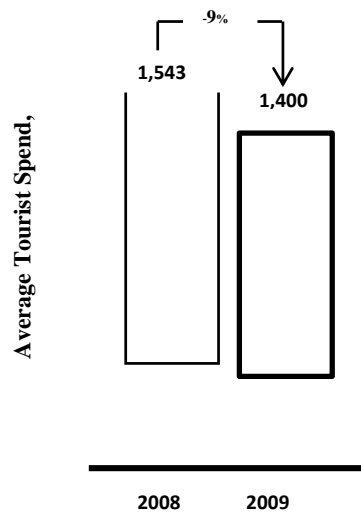


Figure 1 Change in average expenditure per tourist in Thailand

Source: Travel and Tourism Competitiveness Report, 2015 (World Economic Forum)

When checked the tourism receipts from international tourist arrivals of Thailand in 2014, it was found that there was a decline of 8.08%, since the political unrest in 2013 (Department of Tourism, 2015).

In light of the terrorist attacks in Thailand in 2015, this might not be an appropriate time for Thailand's tourism authority to impose surcharges on tourists visiting the country.

There is a general consensus that satisfied customers are willing to pay more for a product or service (e.g. Vlosky, Ozanne and Fontenot, 1999; Finkelman, 1993).

The aim of this paper is to investigate whether a higher level of satisfaction among tourists might induce them to paying higher fees for visiting Bangkok. Several scholars have investigated the relationships between the level of

satisfaction among tourists, their revisit intentions, and their recommendation intentions. However, few researchers have considered the relationship between satisfaction and one's willingness to pay more for visiting a destination; this is particularly the case with tourism in Thailand. This knowledge gap is redressed in this paper.

Literature review

The effect of destination image on satisfaction

Destination image is defined as a tourist's perception of tourism resources, services, hospitality, and social norms and regulations of a destination (Ahmed et al., 2006). The image of a destination in a tourist's mind – or destination image – is based on his or her beliefs, ideas and attitude associated with the destination (BignéAlcañiz, Sánchez García and Sanz Blas, 2009). Destination image is considered to be a factor that affects a tourist's travel decisions at all stages including before, during and after his or her holiday experience (Bigne, Sanchez and Sanchez, 2001; Birgit, 2001). Therefore, destination image consists of information about how an area is perceived by tourists (Ispas and Saragea, 2011). Marketers who try to predict tourists' intentions and develop a tourism destination have found that destination image is a helpful tool for analyzing and identifying a destination's strengths and weaknesses (Fakeye and Crompton, 1991; Beerli and Martin, 2004b).

Destination image is a direct antecedent of tourist satisfaction (Bigne, Sanchez and Sanchez, 2001). Puh (2014) has

claimed that a good destination image has a positive impact on tourism satisfaction, and Chi and Qu (2008) report that destination image has a notable effect on both attribute satisfaction and overall satisfaction.

The effect of perceived value on satisfaction

Around the turn of this century, tourism experts were attaching importance to perceived value (Ahmed et al., 2006). A growing number of researchers have analyzed perceived value in the tourism industry (Dumand and Mattila, 2005; Oh and Jeong, 2003). Perceived value is considered a better predictor of satisfaction and behavior intentions (Chen and Chen, 2010). Tourism operators can benefit from studying perceived value, as this information enables them to understand consumers' spending behavior and to predict their behavior intentions more effectively (McDougall and Levesque, 2000; Cronin, Brady and Hult, 2000).

Scholars agree that the consequence of perceived value is satisfaction (Sanchez et al., 2006). Petrick (2004) by using SER-PERVAL as the measurement scale, proved that perceived value is a good predictor of cruise passengers' satisfaction. Yang and Peterson (2004) claim that satisfaction acts as a mediator in the relationship between perceived value and loyalty. Following a study of university students' travel behavior, Gallarza and Saura (2006) concluded that perceived value is a direct antecedent of students' satisfaction.

The effect of experience quality on satisfaction

Experience refers to individuals gaining sensory stimuli, information and emotions after participating in certain activities or events (Ying, Jusoh and Khalifah, 2012). Otto and Ritchie (1996) have stated that tourism is a service industry. Service quality has been discussed in much previously published tourism literature. However, many scholars believe that experience quality is different from service quality (e.g. Chen and Chen, 2010; Schlesinger, Cervera and Pérez-Cabañero, 2015). They claim that service quality is objective, whereas experience quality is subjective. Service quality is only a measurement of cognitive factors of the quality of experience, and affective factors that might well explain experience quality are neglected.

Cole and Scott (2004) reported that experience quality has both direct and indirect impacts on park visitors' overall satisfaction and revisit intentions. Cole and Illum (2006) also found a direct effect of festival visitors' experience quality on their overall satisfaction. Kao et al. (2008) examined the relationship between experience quality and satisfaction in a study of theme park tourism, and confirmed a positive relationship between the two variables.

The effect of satisfaction on a tourist's willingness to pay more

Song and Cheung (2010) define satisfaction as a significant evaluation regarding the services of a tourism

destination. Yoon and Uysal (2005) have stated that assessments of satisfaction can be used to evaluate a destination's performance in terms of products and services. According to Altunel and Erkut (2015), if tourists' post-travel experiences exceed their expectations, they will be satisfied; and vice versa.

Willingness to pay more is based on the amount that consumers are willing to pay for a product or service (Cameron and James, 1987). As Rao and Bergen (1992) suggest, if quality and value outweigh the fair price of a product, then customers would be willing to pay more for it. Tourists' willingness to pay more is an important subject in tourism research (Dixit, Hall and Dutta, 2014).

Satisfaction has been used as a benchmark to measure willingness to pay more since it has a positive impact on one's willingness to pay more (Affizzah, Radam and Baizura, 2006). Baker and Crompton (2000) also confirmed in their study that satisfaction has a significant effect on one's willingness to pay more. Vlosky, Ozanne and Fontenot (1999) argue that in order to encourage customers to pay more for a product or service, a seller must be able to satisfy their needs.

Hypotheses

Four hypotheses were tested in this study; these are laid out in the conceptual framework in Figure 2:

H1: Destination image has an effect on satisfaction.

H2: Perceived value has an effect on satisfaction.

H3: Experience quality has an effect on satisfaction.

H4: Satisfaction has an effect on a tourist's willingness to pay more for visiting.

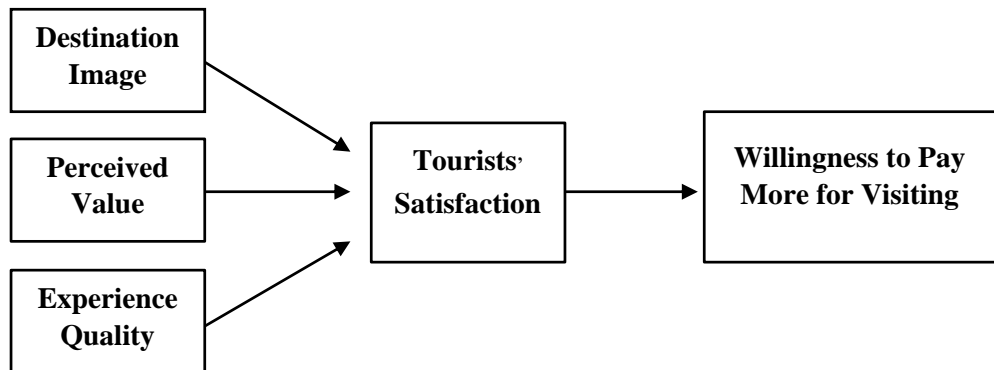


Figure 2 Conceptual framework

Methodology

Research design

A quantitative method was chosen for this study, whereby a questionnaire was used to collect primary data from a sample of international tourists. According to The Ministry of Tourism and Sports of Thailand, the total number of international tourists arriving in Thailand during the years 2011 to 2015 was 122,821,872; the average number of tourists per year during this period was 24,564,375. The sample size for this study was calculated by using Yamane's (1967) formula at 95% confidence level. Since the population was 24,564,375, a suitable sample size for this study was 400.

Questions about destination image in this study were sourced from previous studies by Beerli and Martin (2004a), Chen and Tsai (2007), Tran (2011), Chen and Phou

(2013) and Puh (2014). Questions were categorized into four elements: environment, infrastructure, culture and society, and entertainment.

Perceived value was measured using the PERVAL scale, which was developed by Sweeney and Soutar (2001). It included emotional value, price, social value and quality.

Dimensions used to analyze experience quality were based on Otto and Ritchie's (1996) theory. There were four dimensions in the measurement scale: hedonics, peace of mind, involvement, and recognition.

Questions about tourists' satisfaction were adapted from previous research studies by Della Corte et al. (2015), Naidoo, Ramseook-Munhurrin and Seegoolam (2011), and Omar et al. (2015). They were categorized into five dimensions of destination attributes:

accessibility, attractions, activities, amenities, and accommodation.

Questions about willingness to pay more were adapted from studies by Rajamohan (2006), and Loureiro and de Araújo (2014).

Destination image, perceived value, experience quality and willingness to pay more sections were measured by 5-point Likert scale at agreement level, from 1 (strongly disagree) to 5 (strongly agree). Satisfaction section was measured by 5 points Likert scale at the level of satisfaction, from 1 (very dissatisfied) to 5 (very satisfied).

Data collection

There were 400 complete questionnaires that were collected from international tourists who traveled to Bangkok between 12th May and 16th June 2016. Questionnaires were distributed at Suvarnabhumi Airport, Don Muang Airport, King Power Complex and the Terminal 21 shopping mall. These locations were chosen due to the high concentration of tourists passing through them, and thus more comprehensive data was obtained.

Data analysis

Multiple regression analysis was applied to test the effects of destination image, perceived value, and experience quality factors on the sampled tourists' satisfaction. Simple linear regression was used to test the effect of satisfaction on willingness to pay more.

Reliability test

The reliability of the survey questions was measured by Cronbach's Alpha. Nunally and Bernstein (1994) have recommended that the Cronbach's Alpha value of a reliable and acceptable survey should achieve 0.7. The reliability test results of each factor have been shown in Tables 2-6.

Based on the results of reliability for destination image ($\alpha=0.85$, 12 items), perceived value ($\alpha=0.84$, 12 items), experience quality ($\alpha=0.90$, 12 items), satisfaction ($\alpha=0.89$, 15 items) and willingness to pay more ($\alpha=0.88$, 3 items), Cronbach's alpha were all above 0.7, which indicates that the questionnaire of this research is reliable.

Table 2 Reliability test Result of destination image

Statements		Cronbach's Alpha
Destination Image		0.85
Natural Environment	-The scenery of the city is beautiful	
	-The city is clean	
	-Bangkok is a city with pleasant climate	
Infrastructures	-Bangkok has quality roads	
	-The public transport system is good	
	-Bangkok has good capacity of being a traffic hub of Thailand	
Entertainment	-Bangkok has a great nightlife	
	-Bangkok is a good shopping place	
	-Bangkok has varied gastronomy	
Social Environment	-The people are friendly	
	-The people are hospitable	
	-The people here have a different culture and customs	

Table 3 Reliability test result of perceived value

Statements		Cronbach's Alpha
Perceived Value		0.84
Emotional Value	-I feel excited while visiting Bangkok.	
	-I feel good on this trip	
	-I enjoy this trip	
Price	-Traveling in Bangkok is value for money	
	-Traveling in Bangkok cost reasonable price	
	-The cost was the main criterion for the decision of traveling to Bangkok	
Social Value	-Many people that I know have traveled to Bangkok	
	-Taking this trip would change the way I am perceived	
	-Taking this trip would make a good impression on	
Quality	-The tourism in Bangkok has an acceptable standard of	
	-The tourism in Bangkok has consistent quality	
	-The result was as expected	

Table 4 Reliability test result of experience quality

Statements		Cronbach's Alpha
Experience Quality		0.90
Hedonics	-I am doing something memorable that enriches my life	
	-I am having a "once in a lifetime" experience	
	-After travelling in Bangkok, I can share memories of my	
Peace of mind	-Visiting Bangkok makes me feel a sense of personal	
	-Visiting Bangkok makes me feel that my property is safe	
	-Visiting Bangkok makes me feel that my privacy is	
Involvement	-I was educated and informed about where I visited	
	-That I am involved in the process of this trip	
	-That I have control over the outcome	
Recognition	-A sense of cooperation from others	
	-That I am important	
	-That I am being taken seriously	

Table 5 Reliability test result of satisfaction

Statements		Cronbach's Alpha
Satisfaction		0.89
Attraction	-Well-kept and restored sites	
	-Unique and authentic sites	
	-Knowledgeable sites for visitors	
Activity	-Availability of a variety of activities	
	-Organization of cultural events	
	-Interesting events/festivals	
Amenity	-Telecommunication service (e.g. Internet, WIFI)	
	-Bank service (e.g. Money exchange, ATM)	
	-Public toilets	
Accommodation	-Availability of accommodation	
	-Quality of accommodation	
	-Hospitality of hotel staffs	
Accessibility	-Clear and helpful directions to show around attractions	
	-Availability of information for tourists	
	-Check-in/check-out process at the airport	

Table 6 Reliability test result of willingness to pay more

Statements	Cronbach's Alpha
Willingness to pay more	0.88
-I will pay a higher fee to visit Bangkok, despite other competing destination's price being lower	
-I will continue to come to Bangkok, even if the fee is increased	
-I am willing to spend extra than the original plan to experience Bangkok	

Results

Respondents' profiles

The numbers of female and male respondents in the sample were nearly identical. The largest age group consisted of people aged 21 to 30, which accounted for 34.75% of respondents; 48% of the participants held bachelor degrees; 30.00% of respondents stated that they earned over 40,000 baht per month; 27.75% of the participants were company employees; 46.00% of them were single; and, 33.75% of the respondents were from Asia.

Hypothesis testing

As described below and illustrated in Table 7, three of the hypotheses were proved in this study:

Hypothesis 1: Destination image has an effect on satisfaction.

Hypothesis 2: Perceived value has an effect on satisfaction.

Hypothesis 3: Experience quality has an effect on satisfaction.

Table 7 Statistical results on the effects of destination image, perceived value, and experience quality on satisfaction (multiple regression analysis).

variables	Unstandardized coefficients B	Standardized coefficients Beta	t	Sig.	Tolerance	VIF
(Constant)	0.77		5.07	0.00		
Destination image	0.20	0.21	5.05	0.00	0.66	1.53
Perceived value	0.28	0.27	5.58	0.00	0.49	2.06
Experience quality	0.34	0.37	7.69	0.00	0.51	1.97
R=0.73 R ² =0.54 Adjusted R ² =0.54 F=154.19						

Note: Significant at the 0.05 level

The multiple linear regression equation was $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \dots + \beta_pX_p$. With dependent variable Y (satisfaction), and independent variables X_1 , X_2 , and X_3 (destination image, perceived value, and experience quality), the multiple regression equation for the effects of destination image, perceived value and experience quality on satisfaction can be written as: $Y = 0.77 + 0.21X_1 + 0.27X_2 + 0.37X_3$.

According to Table 7, 54% ($R^2=0.54$) of the variance in the dependent variable (satisfaction) was explained by the three independent variables (destination image, perceived value, and experience quality).

Therefore, destination image ($p<0.01$), perceived value ($p<0.01$), and experience quality ($p<0.01$) were found to have a significant effect on satisfaction, because the p-values of independent variables were all below 0.05. Thus, hypothesis 1, hypothesis 2 and hypothesis 3 can be accepted. Furthermore, it was found that

experience quality ($\beta=0.37$) had a larger beta than that of destination image ($\beta=0.21$) and perceived value ($\beta=0.27$), and therefore had more of an effect on the tourists' satisfaction.

The correlation among the predictors was tested by calculating variance inflation factor (VIF) and tolerance values. Tolerance is the reciprocal value of VIF. If the VIF value exceeds 10, there is a multicollinearity problem in the model. In this study, destination image (tolerance=0.66; VIF=1.53), perceived value (tolerance=0.49; VIF=2.06), and experience quality (tolerance=0.51; VIF=1.97) were found to have acceptable tolerance and VIF values.

As described below and illustrated in Table 8, hypothesis 4 was proved in this study:

Hypothesis 4: Satisfaction has an effect on a tourist's willingness to pay more for visiting.

Table 8 Linear regression analysis results on the effect of satisfaction on willingness to pay more.

variable	Unstandardized coefficients B	Standardized coefficient Beta	t	Sig.
Constant	0.30		0.95	0.34
satisfaction	0.81	0.46	10.43	0.00
R=0.46 R ² =0.22 Adjusted R ² =0.21 F=108.70				

Note: Significant at the 0.05 level

The equation of simple linear regression was found to be $Y = \beta_0 + \beta_1X$. With the dependent variable Y (willingness to pay more) and the independent variable X (satisfaction), the regression equation for

this relationship can be written as $Y = 0.30 + 0.46X$.

As shown in Table 8, 22% ($R^2=0.22$) of the variance in the dependent variable

(willingness to pay) was explained by the independent variable (satisfaction).

Therefore, a significant effect of satisfaction on willingness to pay more was detected since the p-value was less than 0.05. Therefore, hypothesis 4 can be accepted.

Conclusion

This research aimed to investigate factors that affect tourists' satisfaction and willingness to pay higher fees for visiting Bangkok. The population sampled in this study consisted of tourists who have visited Bangkok. Data was collected during May and June 2016, and it was analyzed using regression analysis.

In this study, it was found that destination image, perceived value, and experience quality had a significant effect on the level of satisfaction among the sampled tourists, and that their satisfaction had a significant effect on their willingness to pay more for visiting Thailand. In addition, no multicollinearity problems in the proposed model were found. With the biggest beta value, experience quality was found that have more effect on tourists' satisfaction than destination image and perceived value.

Discussion

The effect of destination image on satisfaction

In testing hypothesis 1, it was found that destination image had a significant effect on satisfaction. Similar findings exist in published literature. In a study of Mediterranean destinations, Puh (2014) proved that destination image has a

positive impact on tourism satisfaction, and concluded that positive destination image leads to greater tourist satisfaction. A tourist destination with a well-managed image might therefore have a competitive advantage. Ramseook-Munhurrin, Seebaluck and Naidoo (2014) studied tourists' satisfaction and loyalty towards Mauritius, and claimed that destination image is a predictor of satisfaction. They argue that a tourist destination should be devoted to enhancing its image in order to increase tourism receipts, jobs and government revenues. Kim, Holland and Han (2013) built a model of tourists' destination loyalty towards Orlando, and they concluded that destination image has a significant effect on satisfaction. Ghanian et al. (2014) investigated the satisfaction index of tourists towards tourist destinations in western Iran: they found that the more favorable the destination image, the higher the overall satisfaction. Chen and Phou (2013) conducted a survey at the Angkor temple area in Cambodia, and found that destination image has a direct effect on visitors' satisfaction.

The main reason why the findings in this paper are identical to those in many previous studies might be that this study also concerns tourism. However, there are some differences between this paper and previous studies. For instance, this paper is based on a survey in Bangkok, whereby the sample consisted of tourists who visited Bangkok during a fairly short time period.

The effect of perceived value on satisfaction

In testing hypothesis 2, it was found that perceived value does have a significant effect on satisfaction, something that has been reported in previous studies. Sanchez et al. (2006) note that the result of perceived value is satisfaction. Lai and Chen (2011) demonstrated that satisfaction relies on perceived value in their study of KMRT passengers' satisfaction in Taiwan. Williams and Soutar (2009), in an adventure tourism study, found that the four dimensions of perceived value have significant effects on satisfaction. Petrick (2004), as well as Gallarza and Saura (2006), have proved that perceived value is a direct antecedent of satisfaction. On a similar note, Bradley and Sparks (2012) state that perceived value can predict tourists' satisfaction. Bajs (2015) conducted a study into tourists' perceived value, satisfaction and intentions in Dubrovnik, and concluded that perceived value has a highly significant influence on visitor's satisfaction. It is perhaps not surprising that, according to the results of this study, perceived value was found to have a significant effect on tourists' satisfaction. According to several previous studies, perceived value plays a fundamental role in the success of the tourism market.

The effect of experience quality on satisfaction

In testing hypothesis 3, it was found that experience quality has a significant effect on satisfaction. This has been found in many previous studies. Chen and Chen (2010) state that tourists' satisfaction often depends on obtained experience. Cole and Scott (2004) state that experience quality affects responses to tourists' desired psychological benefits, and they confirmed that tourists do seek

certain psychological benefits when they participate in tourism activities, and that those benefits affect their level of satisfaction. Cole and Illum (2005) also deduced a direct effect of experience quality on overall satisfaction in their study, which was an adaption of a study by Cole and Scott (2004). Papadimitriou (2013) studied experience quality and satisfaction among tourists attending a festival, and concluded that experience quality has a stronger effect on satisfaction than other relevant factors.

It was also revealed in this study that experience quality has a stronger impact on tourists' satisfaction than destination image and perceived value. However, in a relevant previous study, Jin, Lee and Lee (2015) claim that destination image has a stronger effect on satisfaction than experience quality and perceived value. The reason could be because they adopted the measurement scale of experience quality that was used by Kao et al. (2008), which consisted of immersion, surprise, participation and fun. For this study, the measurement scale used by Otto and Ritchie (1996) was chosen: this consists of hedonics, peace of mind, involvement, and recognition. Kao et al. (2008)'s scale was only used to examine the relationship between experience quality and satisfaction in theme-park tourism, and so only applies in a similar field. Otto and Ritchie (1996)'s scale was designed for measuring experience quality in different tourism industries such as tourist attractions, hotels and aviation, and so is more appropriate for this study.

The effect of satisfaction on one's willingness to pay more

In testing hypothesis 4, it was found that satisfaction has a significant effect on one's willingness to pay more. Some scholars state that customers' willingness to pay more for a product or service largely depends on the extent to which their needs are satisfied (Vlosky et al., 1999). Finkelman (1993), as well as Reichheld and Sasser (1990), also support the idea that satisfied customers are willing to pay higher prices. Affizzah et al. (2006) used satisfaction as a benchmark to measure the willingness of a tourist to pay more: they found that satisfaction has a positive impact on this variable. López-Mosquera and Sánchez (2014) also claim that satisfaction is one of the determinants of one's willingness to pay more. However, there have also been some studies that do not support the relationship between satisfaction and one's willingness to pay more. For example, Lu and Hsiao (2010) found no evidence that Taiwanese social network site users' satisfaction affected their intention to pay more social networking site subscription fees. Papadimitriou (2013) has claimed that satisfaction has a significant effect on loyalty but has no effect on one's willingness to pay more for a festival. One possible reason for these conflicting results is that neither study concerned tourism.

Implications

The findings in this paper might be beneficial to business leaders in Bangkok's tourism industry, as well as Thai government officials who regulate this industry. It was found in the survey results that if they are more satisfied, then they are more willing to pay more to visit Bangkok, and that satisfaction can be

enhanced by increases in destination image, perceived value and experience quality.

Tourism industry business managers should be able to recognize which tourism offerings can be improved or adjusted. The environment and infrastructure in Bangkok could be improved, since many of the respondents awarded low scores against these two dimensions. Chi and Qu (2008) argue that once a destination image comes into being, it is hard to change. Thus, it is essential to build and maintain a positive image of a destination. Promotion of a positive destination image will make tourists feel more satisfied and increase their willingness to pay more for visiting.

The tourism organization should cooperate with other related government sectors to improve the city's image by improving the quality of the environment and facilities, such as improving road quality, reducing local traffic congestion and removing litter.

It has been demonstrated in this study that perceived value has a significant effect on tourists' satisfaction. It is therefore recommended that tourism industry marketers should pay attention to both functional value (product value/quality, monetary value) and affective value (emotional value, social value). Tourism service providers should be educated on the impact of product value on tourists' satisfaction. Bangkok's tourism industry should work to achieve an acceptable, consistent standard of quality.

Moreover, price discounts are not the only means of generating value for consumers. Sweeney and Soutar (2001) demonstrated that emotional value and

social value have an impact on consumers' decision-making process as well. Marketers should segment the market according to the different desires of tourists. They could abandon a traditional, sales-oriented strategy for a strategy that considers more dimensions of value.

In this study, it was found that the effect of experience quality on satisfaction was stronger than that of destination image and perceived value. This is because tourists participate in tourism activities in search of psychological benefits (Cole and Scott, 2004). Tourism industry managers and marketers need to find ways of heightening tourists' experience quality in terms of hedonics, peace of mind, involvement and recognition. Most of the participants surveyed held low opinions of personal security and privacy in Bangkok: peace of mind is one element that needs to be addressed. It is suggested that tour agencies, hotels and telecommunication companies should make better efforts to protect customer privacy and avoid disclosing customer information. Furthermore, the local police force should strive to improve public security, and to prevent and overcome potential security issues.

In order to improve tourists' involvement, the tourism authority could organize more cultural events, and attract tourists' attention and increase their involvement by offering a convenient channel for participation. Besides, they could fund and release films about tourism destinations featuring international celebrities; those are more likely to have a greater and longer appeal to tourists all over the world.

Tourism industry-based organizations and companies should co-operate together to improve tourists' overall satisfaction and thus enhance their willingness to pay. For example, tourism companies could increase training for tour guides so as to help them improving their language and debriefing skills, so that they can help tourists understand the historic culture that each tourist destination represents. Customs officials could simplify immigration procedures and thus reduce visitors' waiting times at customs counters. Placing sign boards around attractions to guide visitors would also be beneficial. In addition, there is a need for more tourist information centers in the city.

Limitations of the study and recommendations for further research

This study was limited to tourists who were visiting Bangkok during a short time period. Due to limitations in terms of population and time, the findings of this study cannot be generalized to other tourism destinations. Other destinations and different sampling periods should be considered in future studies.

In this study, destination image, perceived value, and experience quality were identified as the antecedents of satisfaction and one's willingness to pay more. However, there might be other factors that affect those two variables. Other predictors such as trust, motivation and expectation should be explored in future studies.

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INVESTIGATION OF TOURISM STAKEHOLDER PARTICIPATION IN URBAN BEACH DESTINATION MANAGEMENT IN THAILAND AND IMPLICATIONS FOR TOURISM BUSINESS DEVELOPMENT

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Abstract

The reputation of beach destinations is well perceived for Thailand. Due to its popularity, many beach destinations get affected by negative environmental and social impacts and require special attention from stakeholders especially on the aspect relating the destination management. It is known from the tourism literature that stakeholder participation plays a crucial role if a destination is to be developed in a sustainable way, yet the scarcity is found from the literature that the stakeholder participation is not much stated or included in the stages of destination management. This study, hence, proposes the existence of the stakeholder participation in all stages of the destination management and investigates the level of stakeholder participations in the four different stages by using Hua Hin as a place of investigation. Through the quantitative survey of 539 participants of the five stakeholders, namely 1) central government 2) local government 3) business sector 4) civil society and 5) local resident, in the case of Hua Hin, despite the emphasized importance, all stakeholders do not highly participate in all the stages of destination management. However, the business sector is shown to be the prominent stakeholder that actively involves in the preparation and planning stages, indicating how the destination management is strongly driven by the tourism business sector. On the other hand, the civil society turns out to be less involved, particularly in the evaluation stage. Moreover, the role of the central and the local government is still moderate and should be improved considering they are very crucial in guiding and directing the policy of managing a destination. The study benefits future development of Hua Hin, and other urban beach

destinations in Thailand particularly on the aspects relating to how stakeholder collaboration should be enhanced. In addition, based on research findings, the paper offers the implications and guidelines for destination management and the crucial role of the business sector for developing a destination.

Keywords: urban beach destination, tourism management, participation, tourism stakeholder, stakeholder participation

Introduction

In Thailand, the tourism industry has expanded rapidly in the past few decades. Beach destination has been among the most popular destinations of the country (Ministry of Tourism and Sports, 2012; Tourism Authority of Thailand, 2012). Among the eight tourism clusters that have been classified by the Ministry of Tourism and Sports (2012), three out of the eight represent the beach destinations. This largest cluster type affirms how sea-sand-sun tourism is the prominent image of Thailand, and according to the Tourism Authority of Thailand (2012), this image is found to be top of tourist minds when they think about Thailand as a destination image.

The popularity of beach destinations comes with its consequences. Given its unique geographical and ecological position, beach destinations and coastal areas are known to be affected both socially and environmentally by tourism and require special attention by key parties. Beach and coastal destinations are now a sensitive area that requires actions both for preservation and conservation of resources (Williams and Micallef, 2009; World Tourism Organization, 1999). The situation is

even more complex for urban beach destinations – locating within or adjoining to the urban area – in which large populations both local residents and visitors reside and stay. Smith (1992) mentioned about the urban beach destinations and pinpointed that “much beach resort spontaneously and its growth is unmanaged and unplanned (p. 27)” and inevitably affected the environmental and social changes. Smith further emphasized that to control the urbanization of the coastal area requires a comprehensive planning as part of the regional development. Hence, these challenges of urban beach destinations should be taken into consideration in managing destinations.

A number of problems continuously occur in the context of beach destination development, for instance, conflict among stakeholders; business focus on profit maximization rather than social and environmental care; lack of law enforcement; lack of supports from other parties; and negative impacts resulted from poorly planned and managed tourism development (Jamieson & Mandke, 2000). Hua Hin, as one of the popular urban beach destinations in Thailand, has also experienced several problems in managing the destination,

for instance traffic congestion (CyberBiz Online, 2013), parking system solutions (Thai News Agency, 2014), overpricing restaurants (ASTV Manager Online, 2014), beach invasion (ASTV Manager Online, 2014; PostToday, 2014), and environmental degradation (Kasemsuk, 2014).

Considering number of destination management problems, it has been emphasized by a number of studies that strengthening related and concerned stakeholders in managing a destination is an important factor that could effectively enhance the sustainable development (Dyer, Gursoy, Sharma, and Carter, 2007; Edwards, Griffin, and Hayllar, 2008; Erkuş-Öztürk & Eraydın, 2010; European Commission, 2000; Page and Hall, 2003; Philips and Jones, 2006; World Tourism Organization, 2010). More importantly, World Tourism Organization (2010) encouraged the strong collaborative approach to successfully deliver sustainable tourism management. Many scholars confirmed that it is necessary to have a strong collaboration and association among a wide range of organizations and tourism agents, especially the environmentally sensitive sector (Erkuş-Öztürk & Eraydın, 2010; World Tourism Organization, 2010). Therefore, in order to reduce the negative effect on the destination development, the investigation on the collaborative approach of the stakeholder participation is emphasized in the study.

When it comes to the context of Thailand, however, the studies on the stakeholder's participation on the urban

beach destinations are still in paucity, both in the generic tourism destinations and the urban beach and coastal areas. Not being able to identify how stakeholders in the urban beach destinations participate in destination development and implement collaborative approach will make it difficult to start tackling the participative and collaborative challenges that each destination has. Therefore, this study aims at bringing clarity into the studied topic and proposes the following research objectives by taking Hua Hin as an urban beach destination for investigation. Hence, this study aims to:

- 1) investigate level of participation in each stage of tourism management approach
- 2) analyze level of participation among different stakeholders.

Literature review

Stages in tourism management

Number of studies demonstrated different stages in tourism destination management. Some of well-known approaches are, for example, Tourism Management Theory (TMT) which was introduced by Woodside and Martin (2008), indicating a series of tourism destination managing process into five areas namely administering, scanning and sense making, planning, implementing, and activity and impact accessing; Doswell (2009), echoed five stages of destination management approach by introducing the phases of

planning, organizing, directing, coordinating, and monitoring. Putting more in the simpler stage, Hill and Jones (2009) suggested three effective key steps of planning, implementing, and feedback loop whilst Moutinho (2011) also proposed a similar three approaches of strategic planning, implementing of strategy, and measuring the performance. Lastly, Mensah and Mensah (2013) suggested slightly different steps on the management elements, but still remained at the core five elements of planning, organizing, directing, controlling, and promoting. From these aforementioned studies, it could be noticed that most of studies on destination management approach always go straightforward to the planning stage of management cycle, yet it is rarely seen in such studies discussing on initiating or indicating key players to be involved in the process. In fact, the participatory approach should be at the first starting stage as well as be included in all stages of destination management. This idea is echoed by World Tourism Organization (2010), the participatory approach should be included in every single stage of destination management in order to encourage tourism sustainability. This study, hence, incorporates the participatory approach into the stage of tourism management and further elaborate the previous studies and the importance in the following section.

Tourism stakeholder participation in tourism management

Tourism sector is considered as a multi-sectoral economic activity since it is involved many different sectors and no single organization nor individual operates the tourism sector (Doswell, 2009; Swain & Mishra, 2012). It is more likely to focus on people who work in tourism – such as local residents, communities, tourism business, and government – who are ideally required to work together since they all take responsibilities to ensure that tourism management would be done in sustainable aspects, including social, environmental, and economical aspects rather than exploiting local assets of such destinations (Benckendorff, Sheldon, & Fesenmaier, 2014; Mason, 2016; Page, 2011). World Tourism Organization (2010) proposed the Multi-Stakeholder Process Model to promote the notion of multi-stakeholder collaboration enhancement within the tourism industry. It emphasized that the bottom-up work and commitment are critical success factors; while top-down concepts and resources can provide helpful support. This four-stage of Multi-Stakeholder process model consists of “Getting started”, “Determining goals and actions”, “Managing the process”, and “Learning and adaptive management”.

Consequently, this study placed an important on integrating the notion of tourism management with the participatory approach in order to enhance the managing of a destination sustainably. Four stages of tourism management were suggested in this study, namely preparation stage,

planning stage, implementation stage, and monitoring stage.

Preparation stage

An exploration of initial opportunities, ideas, concepts, and initial stakeholders should be conducted as the first stage in order to ensure that important issues are addressed and appropriate actors are involved (World Tourism Organization, 2010). A careful analysis and consultation to identify appropriate actors is important in this process since a logical partnership could bring together a better understanding in the situation, a broad knowledge and skills and it could strengthen the engagement in developing and managing the destination (Pomeroy & Douvere, 2008; Waligo et al., 2013; World Tourism Organization, 2010). Encouraging stakeholders to join is one of challenging tasks in this stage, since stakeholders have different level of interest and different level of engagement. Hence, it is necessary to communicate and provide knowledge in a correct way to strengthen the collaboration (Sindecharak & Sangsrit, 2013; Jamal & Getz, 1995; Wilcox, 1994; World Tourism Organization, 2010). Moreover, building understanding and building connection among stakeholders are important success elements in collaboration since it could provide an opportunity to strengthen mutual understanding, to get knowing each other and to encourage them to feel comfortable to share their opinions (Pomeroy & Douvere, 2008; World Tourism Organization, 2010).

Planning stage

All concerned parties should be included at the planning stage in order to agree priorities, objectives, and purpose of the plan (Mathbor, 2008; Pomeroy & Douvere, 2008). After agreeing on goals, situational analysis, both external and internal conditions, should be taken place to turn the conclusions to an action plan (Wilcox, 1994). The management approach consists of all activities of the overall management function that determine the policy, objectives, responsibilities, and implementation that need to be introduced and clearly set out in order to avoid any subsequent frustration of the expectations of public and private partners and local community (European Commission, 2000). Government agencies must provide knowledge of the existing policy context and provide relevant economic and environmental data; while tourism business sector should unfold their performance, needs, obstacles, and market information (World Tourism Organization, 2010). NGOs, moreover, could provide the information on environmental and social condition in the area (World Tourism Organization, 2010). This is an effective way to promote the information exchange and to enhance the understanding among stakeholders throughout the consensus process (Pomeroy & Douvere, 2008). Importantly, it is crucial to secure long-term commitment both to the strategy and implementation at the beginning stage.

Implementation stage

Implementation is concerned with the mobilization and deployment of

resources and technology which provides the groundwork for working towards the objectives and results (Doswell, 2009). The continuous effective communication and stakeholder engagement are essential in order to increase motivation and rejuvenate the process (Waligo et al., 2013). Pomeroy and Douvere (2008) suggested that government needs to ensure the availability of appropriate training, operation, and equipment to concerned parties. Producing materials and hosting activities are conducted in this stage in order to involve a range of interests (Wilcox, 1994).

Monitoring stage

Monitoring concerns with the control function and performance toward the reporting and analysis of results (Doswell, 2009; Mason, 2016). After implementing the plan, stakeholders should get involved in summarizing and evaluating results and outcomes in order to examine the level of achievement (Pomeroy & Douvere, 2008). This monitoring information would enable the involved parties to determine its ongoing interest and participation in tourism (Canadian Universities Consortium, 1999). Tourism stakeholders should identify and agree on indicators at the early stage of planning to clarify sustainability objective and implement it throughout the process to ensure tourism activities meet sustainable development goals (Canadian Universities Consortium, 1999; World Tourism Organization, 2010).

Research framework

This study examined the level of participation in four stages of tourism management of different stakeholders in an urban beach tourism destination in Thailand. This study selects Hua Hin as a destination to carry out the research investigation. Given the history and characteristics, Hua Hin is one of Thailand's premier beach resort towns on the Gulf of Thailand since 1920s. It is a rapid expansion and unplanned growth along the coast for recreational purpose has impacted on the evolution of the physical form of the urban beach center and environmental degradation, resulting in pollution and problems in various dimensions (Smith, 1992). By undertaking these research objectives, the study expects to have a better understanding about the current tourism stakeholder participation in the urban beach destination by using Hua Hin as a place of investigation in order to be an important resource for further participation enhancement.

Research methods

The quantitative method was applied through the use of questionnaire survey. The questionnaire with measurement scales was developed and modified from previous studies in the context of stakeholder participation and tourism management approach. The questionnaire consists of two sections 1) the demographic profile of respondent and 2) the level of participation in tourism management approach by focusing on the four stages of management: preparation stage, planning

stage, implementation stage, and evaluation stage. The Item-Objective Congruence Index (IOC) was applied into a content validity test evaluated by five experts. Reliability results later came from the pilot questionnaire data to reveal errors in the designed questionnaire and to refine the tool before the final test.

Data collection

Data were collected from May to July 2016 from tourism stakeholders in Hua Hin, Prachuap Khiri Khan Province, Thailand. At the first stage, the quota sampling method was adopted in order to ensure the equality of each segment among tourism stakeholder by dividing the population into five segments equally since the opinions and inputs of each tourism stakeholder are a core of this study and the imbalance of stakeholder was minimized. The five segments of tourism stakeholders in this study are 1) central government; 2) local government; 3) business sector; 4) civil society; and 5) local resident. Purposive sampling technique was, then, applied for the central government, local government, tourism business and civil society in order to get the information from proper key informants, while accidental sampling was applied for the local residents who are willing to give information about the tourism management in Hua Hin. G*Power

version 3.1 was conducted to calculate sample size, by using the F-tests – ANOVA: Fixed effects, omnibus, one-way, the required number of sample size for this study is 470. Finally, 539 successful questionnaires were returned and computed in the data analysis process.

Research findings

Among the 539 respondents, 291 (54%) were male and 248 (46%) were female. The majority of respondents fell in the 40-49 age range (39.3%) which is slightly more than the 30-39 age range (33.2%). The remaining groups with minority were less than 30 years old (14.5%) and equal and older than 50 years old (13%) respectively. Regarding to the education background, the vast majority of respondents (72.2%) hold a bachelor degree level, while 17.4% of respondents got graduate degree level and 10.4% were below the bachelor degree. In addition, as described in the quota sampling technique, sector of respondents was controlled to have a similar proportion. Consequently, the number of each sector (central government, local government, business sector, civil society, and local resident) was accounted between 18.6% - 22.3%. Cronbach's alpha for 26 items were .809 indicating excellent reliability of the variables.

Table 1 Frequency and percentage of respondents classified by socio-demographic profiles

(n = 539)

Socio-demographic data	Frequency	(%)
Gender		
Male	291	54.0
Female	248	46.0
Age		
Less than 30	78	14.5
30-39	179	33.2
40-49	212	39.3
50 and over	70	13.0
Education		
Below Bachelor degree	56	10.4
Bachelor degree	389	72.2
Graduate degree	94	17.4
Stakeholder		
Central government	102	18.9
Local government	105	19.5
Business sector	112	20.8
Civil society	100	18.6
Local resident	120	22.3

The level of participation in tourism management approach was revealed by using twenty-six attributes of four stages in tourism management to collect quantitative data from tourism stakeholders in Hua Hin. (Please see

appendix 1 of how the 26 attributes were derived from) By using five levels of participation, level one (1) to five (5) referred to “Very Low” to “Very High”. The descriptive data analysis was reported in Table 2.

Table 2 Level of participation in tourism management approach

		<i>M</i>					<i>SD</i>
		Central Gov.	Local Gov.	Business	Civil So.	Local Res.	Overall
Preparation Stage							
1	Analyzing conditions, problems, and opportunities	2.89	2.62	2.96	2.73	2.63	2.78 0.79
2	Identifying stakeholder	2.62	2.70	3.29	2.79	2.60	2.80 0.88
3	Encouraging participants to join	3.02	2.82	3.55	2.61	2.73	2.95 0.86
4	Building understanding amongst stakeholder	2.79	2.63	2.99	2.70	2.64	2.75 0.84
5	Building connection	2.90	2.86	3.63	2.91	3.03	3.07 0.94
6	Selecting coordinator	2.81	2.78	3.30	2.89	2.83	2.93 0.92
Overall preparation stage						2.88	0.70
Planning Stage							
1	Setting objective	2.65	2.67	3.02	2.75	2.64	2.75 0.68
2	Analyzing situation	2.84	2.83	3.46	2.91	2.85	2.98 0.77
3	Developing policy and planning	2.84	2.82	3.48	2.89	2.89	2.99 0.86
4	Developing project/activity	2.85	2.86	3.42	2.90	2.87	2.98 0.75
5	Developing action plan	2.65	2.70	3.21	2.74	2.63	2.79 0.73
6	Agreeing on role and responsibility	2.80	2.87	3.17	2.86	2.82	2.91 0.73
7	Developing finance and accounting plan	2.80	2.81	3.27	2.91	2.86	2.93 0.72
8	Identifying monitoring and evaluation process	2.90	2.88	3.47	2.96	2.86	3.02 0.81
9	Defining success criteria	2.83	2.89	3.29	2.87	2.88	2.96 0.84
10	Collecting decision-making	3.03	2.94	3.66	3.04	3.04	3.15 0.84
Overall planning stage						2.94	0.57
Implementation Stage							
1	Implementing action plan	3.16	3.10	3.05	3.24	3.01	3.11 0.7
2	Supporting operation directly	3.19	3.05	3.08	3.21	3.08	3.12 0.62
3	Supporting operation indirectly	3.05	3.01	2.96	3.04	2.98	3.01 0.72
4	Operating within organization/community	3.07	3.06	3.12	3.15	3.02	3.08 0.78
5	Operating among organization/community	3.14	3.10	3.20	3.22	3.09	3.15 0.86
Overall implementation stage						3.09	0.55
Evaluation Stage							
1	Monitoring process	3.19	2.99	3.17	2.60	2.92	2.98 0.77
2	Evaluating process	3.36	3.08	3.14	3.03	2.93	3.10 0.77
3	Consulting and suggesting	3.05	2.90	2.93	2.66	2.80	2.87 0.77
4	Communicating and sharing results	3.16	2.95	3.13	2.49	2.93	2.94 0.88

5	Improving and adapting operation	3.02	2.95	3.12	2.66	2.95	2.94	0.79
Overall evaluation stage							2.97	0.58

Remark: 1.00-1.99 = "Very Low", 2.00-2.99 = "Low", 3.00-3.99 = "Moderate", 4.00-4.99 = "High", 5.00 = "Very High" ($\alpha = .809$)

The tourism management approach is divided into four stages, which are preparation, planning, implementation, and evaluation. The highest frequency was dropped into the level of 'Moderate', following by 'Low' level. The Preparation Stage was the lowest score ($M = 2.88$, $SD = .70$), while the highest one was the Implementation Stage ($M = 3.09$, $SD = .55$). The mean Planning Stage score was $M = 2.94$ ($SD = .57$). Among the attributes in the Preparation Stage, Building connection was the highest score ($M = 3.07$, $SD = .94$), while Building understanding amongst stakeholder was the lowest score ($M = 2.75$, $SD = .84$). In the Planning Stage, Collecting decision-making was the highest score ($M = 3.15$, $SD = .84$), while Setting objective was the lowest score ($M = 2.75$, $SD = .68$). In the Implementation Stage, Operating among organization/community was the highest score ($M = 3.15$, $SD = .86$), whereas Supporting operation indirectly ($M = 3.01$, $SD = .72$). In the Evaluation Stage, Evaluating process was the highest score ($M = 3.10$, $SD = .77$), while Consulting and suggesting was the lowest score ($M = 2.87$, $SD = .77$).

In order to analyze level of participation among different, a One-way Analysis of Variance (ANOVA) was used to examine the level of tourism participation of different stakeholders in an urban beach tourism destination in

Thailand. The test of normality, examining standardized skewness and the Shapiro-Wilks test, indicated the data were statistically normal. The Levene's F Test for Equality of Variances is used to test the assumption of homogeneity of variance. The alpha level of 0.05 was used for all analyses. According to the Levene's Test of Homogeneity of Variances, the Planning Stage ($F = 1.06$, $p = .373$), Implementation Stage ($F = 1.75$, $p = .138$), and Evaluation Stage ($F = 1.57$, $p = .181$) variables, the test of homogeneity of variance was not significant indicating the equal variances assumed. The null hypothesis of these variables was retained. Thus, F Test for ANOVA were used. For the Preparation Stage ($F = 5.90$, $p < .001$) variable, the test of homogeneity of variance was significant indicating the unequal variances. The null hypothesis of these variable was rejected. Thus, Welch statistic was used.

There were statistically significant differences between groups means as determined by one-way ANOVA for the Planning Stage ($F(4, 534) = 19.44$, $p < .001$) and Evaluation Stage ($F(4, 534) = 11.09$, $p < .001$). There were no statistically significant differences between group means as determined by one-way ANOVA for the following dependent variable: Implementation Stage ($F(4, 534) = .99$, $p = .409$).

Table 3 Level of tourism participation of different tourism stakeholders by One-Way ANOVA

		<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>Sig.</i>
Planning Stage	Between Groups	22.92	4	5.73	19.44	.000
	Within Groups	157.33	534	.29		
	Total	180.25	538			
Implementation Stage	Between Groups	1.21	4	.30	.99	.409
	Within Groups	162.45	534	.30		
	Total	163.66	538			
Evaluation Stage	Between Groups	13.80	4	3.45	11.09	.000
	Within Groups	166.10	534	.31		
	Total	179.90	538			

For the unequal variances, the *Welch's* test indicated that the following dependent variable was statistically significant difference: Preparation ($F(4, 259.17) = 22.210, p < .001$).

		Statistic*	df1	df2	Sig.
Preparation Stage	Welch	22.210	4	259.17	.000

*Asymptotically *F* distributed.

In order to explore further, post hoc comparisons were then conducted in order to determine which pairs of the five sectors means differed significantly. LSD, moreover, was used to determine if the equal variances assumed, while Dunnett's T3 was used if the equal variances not assumed. The results of post hoc comparisons indicated that the tourism stakeholders in Hua Hin had statistically differences in level of participation in the Preparation, Planning, and Evaluation stages. In the Preparation Stage and Planning Stage, Business Sector ($M = 3.28, 3.34$) had a

significantly higher average level of participation in tourism management than Central Government ($M = 2.84, 2.82$), Local Government ($M = 2.74, 2.82$), Civil Society ($M = 2.77, 2.88$), and Local Resident ($M = 2.74, 2.83$) respectively, while in the Evaluation Stage, Civil Society ($M = 2.69$) had a significantly lower average level of participation than other stakeholders – Central Government ($M = 3.15$), Local Government ($M = 2.97$), Business Sector ($M = 3.10$), and Local Resident ($M = 2.90$).

Table 4 Post hoc comparison of different tourism stakeholders

Stakeholder	<i>M</i>	Mean Differences				
		1	2	3	4	5
Preparation Stage						
1. Central government	2.84	--				
2. Local government	2.74	.09	--			
3. Business sector	3.28	-.44***	-.54***	--		
4. Civil society	2.77	.06	-.02	.51***	--	
5. Local resident	2.74	.09	.01	.54***	.03	--
Planning Stage						
1. Central government	2.82	--				
2. Local government	2.82	-.01	--			
3. Business sector	3.34	-.52***	-.51***	--		
4. Civil society	2.88	-.06	-.05	.46***	--	
5. Local resident	2.83	-.01	-.01	.51***	.04	--
Implementation Stage (shown but no significance)						
<i>1. Central government</i>	<i>3.11</i>	<i>--</i>				
<i>2. Local government</i>	<i>3.06</i>	<i>.05</i>	<i>--</i>			
<i>3. Business sector</i>	<i>3.08</i>	<i>.03</i>	<i>-.01</i>	<i>--</i>		
<i>4. Civil society</i>	<i>3.17</i>	<i>-.05</i>	<i>-.10</i>	<i>-.09</i>	<i>--</i>	
<i>5. Local resident</i>	<i>3.03</i>	<i>.08</i>	<i>.02</i>	<i>.04</i>	<i>.13</i>	<i>--</i>
Evaluation Stage						
1. Central government	3.15	--				
2. Local government	2.97	.18*	--			
3. Business sector	3.10	.05	-.12	--		
4. Civil society	2.69	.46***	.28***	.41***	--	
5. Local resident	2.90	.25*	.07	.19*	-.21*	--

* $p < .05$, *** $p < .001$

Discussions and conclusions

Given the first objective of this study, the investigation of level of participation in each stage of tourism management approach in Hua Hin was explored. This study found that the average of participation level fell into low to moderate level in every stage. The overall level of Preparation Stage ranked the lowest level among all four stages. In addition, among these attributes “building understanding amongst

stakeholder” was rated the lowest scores, following by “Analyzing conditions, problems, and opportunities” and “Identifying stakeholder” respectively. The overall level of participation in the Planning Stage is also relative low. “Setting objective” was rated the least scores, following by “Developing Action Plan” and “Agreeing on role and responsibility” respectively. The Evaluation Stage, moreover, was rated slightly higher than Preparation and Planning stages. “Consulting and suggesting” was rated the least scores, following by “Communicating and

sharing results” and “Improving and adapting operation”. In the Implementation Stage, they had the highest level of participation. Nonetheless, the overall rating scale only met the moderate level. Among the attributes, “Supporting operation indirectly” was rated the least scores, following by “Operating within organization/community” and “Implementing action plan”. Each stakeholder had participated in operating activities and events in Hua Hin as a part of their roles in their organization or their community. In addition, more people in each stakeholder have more chances to participate in implementing action plan than participating in other stages. It could be noticed that the Hua Hin tourism stakeholders had relatively low level of three out of four stages. The results show an interesting discovery that even though the tourism stakeholders in Hua Hin had not involved in the Preparation Stage, Planning Stage, and Evaluation Stage, they were asked to collaborate or to involve in various activities and they did participate in such activities.

This study, moreover, aimed at analyzing in-depth information about level of participation among different stakeholders in order to have a better understanding that if Hua Hin would like to enhance the participation among tourism stakeholders which segment and in which stage need to be improved. The results from post hoc comparison show that the two key groups of Hua Hin tourism stakeholders had different level of participation in Preparation Stage, Planning Stage, and Evaluation Stage. The Business sector had significantly

higher level of participation than other tourism stakeholders in the Preparation and Planning stages. They have very relatively high level in “Building connection” “Encouraging participants to join”, and “Selecting coordinator” among the Preparation Stage, while among the Planning Stage, “Collecting decision-making”, “Developing Policy and Planning”, and “Identifying monitoring and evaluation process” are relatively high. Given this outstanding participation and involvement, it could be seen as a result of a strong connection and networking among entrepreneurs in the area through the mechanism of business association called “Hua Hin/Cha-Am Tourism Association”, which would be used to induce the participation of other stakeholders. This active participation of business sector in the tourism management could be considered as one of important drivers in enhancing the destination management. Considering the profit motivation and business opportunity, the business sector needs to be active and have high involvement in the tourism management approach (Page & Hall, 2003). The business sector could present a positive signal in sustainable tourism management since it could possibly reduce negative impact and damage on social and environment to the destination (World Tourism Organization, 2010).

Furthermore, the Civil Society had significantly lower level of participation than other in the Evaluation Stage. Most of attributes in Evaluation Stage were rated relatively low level, namely “Communicating and sharing results”, “Monitoring process”, “Consulting and

suggesting” and “Improving and adapting operation”, respectively. These restrictions were reflected by educators, both high school and university levels, as well as NGOs in Hua Hin since they were rarely invited to participate in the evaluation process, or to share their opinions. Even though they were asked to provide support in organizing various activities, they could not give feedback for further improvement. In fact, educators should have more opportunities to provide or to share their knowledge to other stakeholders. As suggested by UNWTO (2010), the civil society could play a role to give support through variety of projects, facilitate collaboration process, and assist in evaluation and monitoring process. This could be considered as appropriate roles of civil society in these stages. Dabphet (2013) suggested that educational institutes could play an important role in planning and knowledge delivery. If the educational institutes have participated more in the Preparation and Planning Stages, they will contribute to enhance the skills of concerned stakeholders to have better quality standards and capacity building, especially partnership enhancement (Erkuş-Öztürk & Eraydın, 2010) and planning development (European Commission, 2000).

One of the key findings that this study discloses is the participation of tourism stakeholders in Hua Hin should be enhanced, especially in the beginning stages in order to allow related parties have more engagement and more collaboration in managing the destination. Looking from the overall picture of Hua Hin, the business sector is

the strongest stakeholder who urge for and are willing to participate in different stages of destination management. The business sector in Hua Hin has strongly shown their willingness and readiness to participate in all tourism destination management and are perceived to be motivated than other stakeholders. Although it may be inferred that Hua Hin’s positive economic benefits is a driving factor for the business sector involvement, their strong willingness, collaborative and effective action should be learnt from, particularly by the government agencies. In order to promote the destination management and development, it is necessary to enhance the collaboration between the public and business sectors through the participatory approach. As suggest by Piriypada & Wang, 2015, it is the government’s responsibility, both central government and local government, to provide more resources for further beach destination protection and beach management. Hence, the business sector in Hua Hin should reinforce the connection with the government agency, especially, local government in Hua Hin, in order to set up a clear strategic goal to improve the destination. Hua Hin tourism businesses with the collaboration with the Hua Hin/Cha-Am Tourism Association, moreover, could act as key players in inviting other key stakeholders, such as government representatives, civil society, local residents to participate in tourism management approach, especially in preparation and planning stages as demonstrated the details of activities in the table 2. The collaboration with educators in the destination could be

considered as a good strategy in organizing such activities. The business sector could contribute both financial and personnel supports; while the educators could contribute their knowledge to enhance the tourism stakeholder participation, for example organizing tourism strategic planning workshop, organizing evaluation and result sharing workshop, and organizing a seminar in direction of destination development. One of important actions that the business sector could take is that they might initiate a city development platform which could enhance the destination development and management holistically. This city development platform can be initiated by the business sector, like many cities in Thailand. If the business sector could perform this role, the participation in managing the destination could be more motivated and gathered multi-stakeholder to join this taskforce. Given the satisfaction of visitors and long-term benefits of local residents of destination area, the tourism business can act as the lead on improvising the stakeholder participatory approach in Hua Hin. However, without support from the government sector, the active action of business sector would face a difficulty. The government sector should play a strong supporting role and attempt to incorporate other stakeholders to get involved for the improvement of a destination. As suggested by Beyer (2014), a transparent and participation in the environment and social improvement with concerned stakeholders could contribute to sustainable business.

Nevertheless, a number of studies highly focused on active roles of central and local government agencies to set directions, strategies, and regulations (World Tourism Organization, 2010), to connect and manage diverse stakeholders (Mason, 2008), to analyze and understand needs of various stakeholders (Edwards et al., 2008), and to coordinate with all stakeholders in the destination (Benckendorff et al., 2014), it means that the role of the central and the local governments are also very crucial, which is still lacking in the Hua Hin case. This is one of the important gaps for further improvement in Hua Hin and may be for other urban beach destination development since the central and local government agencies are considered as a critical factor in improving the whole tourism sector. Without the understanding of the roles and responsibilities, the tourism sector would not be able to enhance its performance to develop a long-term sustainability, especially in developing countries (Hojeghan & Esfangareh, 2011; Tosun, 2005).

This study conducts with some limitations despite its key contribution to the stages of destination management literature on the stakeholder participation in the urban beach areas. Even though using Hua Hin as a place of investigation is able to project the overview of participation of stakeholders in each stage, as well as highlight the concerned issues and levels of participation in which other destinations can learn from, it is still not adequate to claim that the result can be fully explained for other urban beach areas in Thailand or

elsewhere as other destinations are known to have its unique characteristics. Moreover, the quantitative study poses some limitation on the in-depth explanation behind the results of participatory level. Hence, it is recommended that further studies to be

conducted at other urban beach destinations and/or complementing the study with qualitative approaches in order to obtain deeper explanation about the urban beach destination development.

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Appendix Twenty-six attributes of four stages in tourism management

Stage 1: Preparation stage

Variable	Related Studies																
	Drake (1991)	Wilcox (1994)	Jamal and Getz (1995)	Ramirez (1999)	Burns and Taylor (2000)	European Commission (2000)	Geerts (2000)	Page and Hall (2003)	Gomes (2005)	UNEP and UNWTO (2005)	Mathbor (2008)	Pomeroy and Douvere (2008)	Erkus-Ozturk and Eraydin (2010)	UNWTO (2010)	Page (2011)	Schmidt et al. (2013)	Waligo et al. (2013)
Participating in preparation stage		✓				✓		✓			✓			✓			
Analyzing conditions, problems and opportunities	✓	✓				✓		✓		✓	✓	✓		✓			✓
Identifying stakeholder	✓	✓	✓	✓	✓	✓		✓	✓			✓		✓	✓		✓
Encouraging participants to join								✓					✓	✓	✓	✓	✓
Building understanding amongst stakeholder	✓					✓	✓	✓						✓		✓	
Building collaboration								✓				✓	✓	✓			✓
Selecting coordinator								✓						✓			

Stage 2: Planning stage

Variable	Related Studies																					
	Favol (1910)	Drake (1991)	Wilcox (1994)	Jamal and Getz (1995)	European Commission (2000)	Jamieson and Mandke (2000)	Page and Hall (2003)	Gursoy and Rutherford (2004)	Gomes (2005)	UNEP and UNWTO (2005)	Mason (2008)	Mathbor (2008)	Woodside and Martin (2008)	Nunkoo, Ramkissoon, Gursoy and Chi (2009)	Edwards et al. (2010)	Erkus-Ozturk and Eravdin	UNWTO (2010)	Page (2011)	UNWTO (2012)	Dabphet (2013)	Schmidt et al. (2013)	
Participating in planning stage	✓			✓	✓		✓				✓	✓	✓				✓	✓		✓		
Setting objectives/ goals	✓		✓		✓		✓			✓		✓	✓		✓		✓	✓			✓	
Analyzing situation			✓		✓												✓		✓			
Developing policies and planning			✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓		✓			✓	✓	
Developing project/activity			✓		✓			✓		✓		✓		✓			✓					
Developing action plan	✓	✓			✓												✓					
Agreeing on roles and responsibilities	✓				✓		✓		✓			✓				✓	✓	✓				
Developing finance and accounting plan			✓		✓												✓					
Identifying monitoring and evaluation process					✓		✓					✓	✓				✓					
Defining success criteria					✓												✓	✓				
Collecting decision-making		✓	✓		✓	✓	✓		✓						✓		✓				✓	

Stage 3: Implementation stage

Variable	Related Studies														
	Fayol (1910)	Drake (1991)	Jamal and Gerz (1995)	European Commission (2000)	Page and Hall (2003)	Mason (2008)	Woodside and Martin (2008)	Doswell (2009)	Hill and Jines (2009)	UNWTO (2010)	Moutinho (2011)	Page (2011)	Dabphet (2013)	Waligo et al. (2013)	Beyer (2014)
Participating in operation		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
Implementing action plan	✓	✓	✓	✓			✓			✓				✓	
Supporting operation directly				✓						✓		✓		✓	✓
Supporting operation indirectly				✓						✓		✓		✓	✓
Operating within organization/ community				✓						✓		✓		✓	✓
Operating between organization/ community				✓	✓					✓		✓		✓	✓

Stage 4: Evaluation stage

Variable	Related Studies											
	Fayol (1910)	Drake (1991)	Canadian Universities Consortium (1999)	European Commission (2000)	Page and Hall (2003)	Mathbor (2008)	Woodside and Martin (2008)	Doswell (2009)	Hill and Jines (2009)	UNWTO (2010)	Moutinho (2011)	Page (2011)
Participating in evaluation		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
Monitoring progress	✓	✓	✓	✓	✓		✓			✓		✓
Evaluating progress	✓	✓		✓	✓		✓			✓		✓
Discussing and suggesting				✓						✓		
Demonstrating and sharing results				✓		✓				✓		
Improving and adapting operation	✓			✓						✓		

IMPACTS OF SOCIAL MEDIA'S REPUTATION, SECURITY, PRIVACY AND INFORMATION QUALITY ON THAI YOUNG ADULTS' PURCHASE INTENTION TOWARDS FACEBOOK COMMERCE

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Abstract

The competitiveness in online business and the popularity of social media are motivating the usage of social media as a commerce platform. But, unlike electronic commerce website, online marketers are unable to alter the designs and features of the social media. They depend on the provided features to encourage purchase intention. Prior researches regarding these features in social commerce are limited, and, therefore, they are notable aspects which must be explored in-depth. This research focused on the influences these features (reputation, information quality, privacy protection, and security) have on purchase intention using Facebook for online transactions. Data from 455 users who had purchased products through Facebook were analyzed using Partial Least Squares Structural Equation Modelling. The results revealed the significant influences exerted by reputation, information quality, and perceived security protection on purchase intention through performance expectancy and trust in social media. Both reputation and information quality have positive correlations with performance expectancy and trust. Perceived security protection has significant effect on trust. Perceived privacy protection has its effect on perceived risk. However, since perceived risk doesn't have any influence on purchase intention, perceived privacy protection is an unimportant feature for purchase intention. Finally, managerial implications and future studies are discussed.

Keywords: reputation, security, privacy, information quality,
Facebook, social commerce.

Introduction

As the second largest e-commerce market in Southeast Asia, Thailand's e-commerce market was reported to be US\$3,540 million in 2018, with an expected annual revenue growth rate of 13.2%, and forecasted to be US\$5,830 million in 2022 (Anbalagan, 2018). The driving factors include increased Internet and mobile phone use; improved logistics and e-payment systems; better quality and reliability of online shopping services; and higher acceptance of e-commerce in the country (U.S. Department of Commerce, 2017). 92% of online shoppers in Thailand used Facebook to find and research new products before making purchases while 51% of online consumers in Thailand have purchased via social media, making Thailand as the leader of social commerce in the world (U.S. Department of Commerce, 2017).

Yadav, de Valck, Hennig-Thurau, Hoffman, and Spann (2013, p. 312) defines social commerce (s-commerce) as the "exchange-related activities that occur in, or are influenced by, an individual's social network in computer-mediated social environments, where the activities correspond to the need recognition, pre-purchase, purchase, and post-purchase stages of a focal exchange". S-commerce and purchase intention have been studied particularly extensively (Chen & Shen, 2015; Kim & Park, 2013; Ng, 2013; Zhang, Lu, Gupta & Zhao, 2014) and been conducted in various locations such as the UK (Hajli, 2015), China (Chen & Shen, 2015), Taiwan, the USA (Ng, 2013) and Thailand (Mardjo, 2018).

S-commerce environment is based on the concept of using online social media, such as YouTube, Instagram and Facebook. Different from electronic commerce (e-commerce) website, online marketers on social media websites are unable to modify website design or features to encourage purchase intention. As given, the success of s-commerce depends on the features provided by social media and it is important to understand how these features influence an individual's intention to use social media for s-commerce.

With 46 million users in Thailand, Facebook is the most popular social media in Thailand. The majority of its users (14.8 millions) aged between 18-24 years old (We Are Social, 2017). For these reasons, this study focused on four features of Facebook, namely, reputation, information quality, security and privacy protection on young adults aged between 18-24 years old. In accordance with the above, this study 1) identifies the reputation, information quality, perceived privacy protection and perceived security 2) investigates the relationships among reputation, perceived privacy protection, perceived security and purchase intention in s-commerce.

Theoretical background and research model

Facebook commerce (F-commerce) in Thailand

Thai small and medium-sized enterprises (SMEs) are the leaders in F-commerce,

which is helping the growth of Thai economy. 98% of all businesses in Thailand are SMEs with as many as 70% of the national workforce employed by SMEs while about 40% of GDP is generated by SMEs (Boonruang, 2018). There are about 2.5 million Thai SME pages on Facebook, with around 40 million people inside of Thailand and 100 million people outside of Thailand are connected to Thai SME pages (Pornwasin, 2018). F-commerce in Thailand developed primarily due to several factors. First, low penetration of credit cards and Thais' preference on cash which deterred them to do normal online website transactions that require online/ credit card payments. Second, Facebook offers a low-cost alternative for SMEs to sell online. Rather than spending money and efforts for building a website, SMEs can create a Facebook page or join a Facebook Group. Third, instead of purchasing from anonymous merchant in the website, consumers can purchase from their social network or credible businesses based on their social network comments and likes. Thus, providing the customers with the trust belief. F-commerce in Thailand generates above 40% of online sales in categories such as phones and accessories; restaurant dining and fast food; phones and accessories, fresh and perishable products; and household and furnishings (as cited in Bharadwaj, 2017). In general, Facebook is used as a media to engage prospective customers, which subsequently encourages customers to perform commerce transaction. Although the posts from Thai commercial pages only reach on average just 4% of the audience that has 'liked' the page; Thailand has the second-highest Facebook post

engagement rate in the world (6.99%), making Facebook important for businesses (Lexicon, 2018).

The conceptual model for this study was designed based on the previous study done by Mardjo (2018), which used integrated extended Unified Theory of Acceptance and Use of Technology (UTAUT2), trust in Facebook and perceived risk to explain Thai consumers behavior towards Facebook commerce (F-commerce). That study found that performance expectancy, trust in Facebook as s-commerce platform and perceived risk have significant influences on purchase intention. That study referred to performance expectancy as the degree to which the Facebook aids the completion of purchasing products; trust in Facebook as individual's perception of Facebook as a trusted entity; and perceived risk as the degree of consumer's belief regarding the possible negative consequences from the online transaction. Following that study, I postulated that:

H1A-B: Performance Expectancy (PE) and Trust in Facebook have positive effects on purchase intention (PI) to buy products through Facebook.

H1C: Perceived Risk (PR) has a negative effect on purchase intention (PI) to buy products through Facebook.

Reputation

Reputation of social media is defined as the degree of belief that a consumer has regarding social media's honesty and renown (Zha, Yang, Yan, Liu, & Huang, 2018). Past study have confirmed its relationship on initial trust as the lack of direct experience makes first time users

to rely on second-hand information such as reputation to form their trust (Zhou, 2012a). In the context of s-commerce, social media's reputation is positively related to trust in s-commerce (Kim & Park, 2013).

In this study, positive reputation refers to the degree of honesty and renown in which consumers regard Facebook as a social media which facilitates f-commerce. Offline, reputable companies are more likely to be considered by consumers as being capable, honest and having consumers' best interest while doing transactions (Keh & Xie, 2009). Similarly, as Facebook being one of the most reputable social media, its reputation were expected to increase users' trust in Facebook and online marketers that use Facebook as an s-commerce platform were expected to gain instant credibility from their association with Facebook. As the result, the consumers were expected to perceive less risk and higher performance expectancy in purchasing products through Facebook. In sum, I proposed in next hypotheses that:

H2A-C: Reputation (REP) has positive effects on performance expectancy (PE), trust in Facebook (TR) and negative effect on perceived risk (PR) to purchase products through Facebook.

Perceived privacy protection

Kim et al. (2008) referred to perceived privacy protection as the extent to which consumers perceive e-vendor's ability to protect consumer's personal information

gathered during online transactions from unlawful disclosure or use. Higher perceived privacy protection has a positive influence on trust and negative influence on perceived risk (Kim et al., 2008), and increases behavioral intention (Liao, Liu, & Chen, 2011). This study refers to perceived privacy protection as a consumer's perception of the degree to which Facebook has the ability to protect the consumer's personal information collected during online transactions from unauthorized disclosure or use. If the consumers were confident with Facebook's ability to protect their personal information, they were expected to have more trust on Facebook, perceive less risk and higher performance expectancy on conducting transaction through Facebook. Hence, I proposed that:

H3A-C: Perceived Privacy Protection (PPP) has positive effects on performance expectancy (PE), trust in Facebook (TR) and negative effect on perceived risk (PR) to purchase products through Facebook.

Perceived security protection

Kim et al. (2008) referred to perceived security protection as the extent to which consumers perceive an e-vendor will be able to fulfill security requirements (i.e. authentication, integrity, encryption, and non-repudiation, SSL technology etc.). It is associated with a perception that transaction will be conducted securely; therefore, good perceived security protection has been positively related to a system's usefulness (Lallmahamood,

2007); higher consumers' trust and lower perceived risk (Kim et al., 2008).

Perceived Security Protection is referred in this study as a consumer's perception that Facebook will fulfill security requirements such as authentication, integrity, encryption, and non-repudiation. It was expected that when a consumer found security features and protection mechanisms in Facebook, he or she could acknowledge Facebook's intention to fulfill the security requirements and effort to create a secure environment for online activities and, therefore, he or she was expected to have higher trust, performance expectancy and perceive less risk on conducting transaction through Facebook.

H4A-C: Perceived Security Protection (PSP) has positive effects on performance expectancy (PE), trust in Facebook (TR) and negative effect on perceived risk (PR) to purchase products through Facebook.

Information quality

Information quality reflects the user's perception regarding website's content as being relevant, sufficient, accurate, and up-to-date (Zhou, 2012b). Sufficient and

accurate information will facilitate buyers' understanding of the products and improve buyers' purchase decisions (Yang, Cai, Zhou, & Zhou, 2005). Past research has confirmed the important role of information quality in trust (Kim et al., 2008; Kim & Park, 2013) and perceived usefulness (Cheong & Park, 2005; Lin, 2007).

This study refers to information quality as the customer's perception of the quality of information presented on Facebook. High-quality information enables users to obtain useful information that helps improve understanding of the domain (Zheng, Zhao, and Stylianou, 2013), which results in higher trust and performance expectancy preceding the purchase intention. Although Kim et al. (2009) did not find the relationship between information quality and perceived risk, I assumed that better understanding of the domain gained from higher information quality would reduce the perceived risk. Thus, the next hypotheses are as follows:

H5A-C: Information Quality (IQ) has positive effects on performance expectancy (PE), trust in Facebook (TR) and negative effect on perceived risk (PR) to purchase products through Facebook.

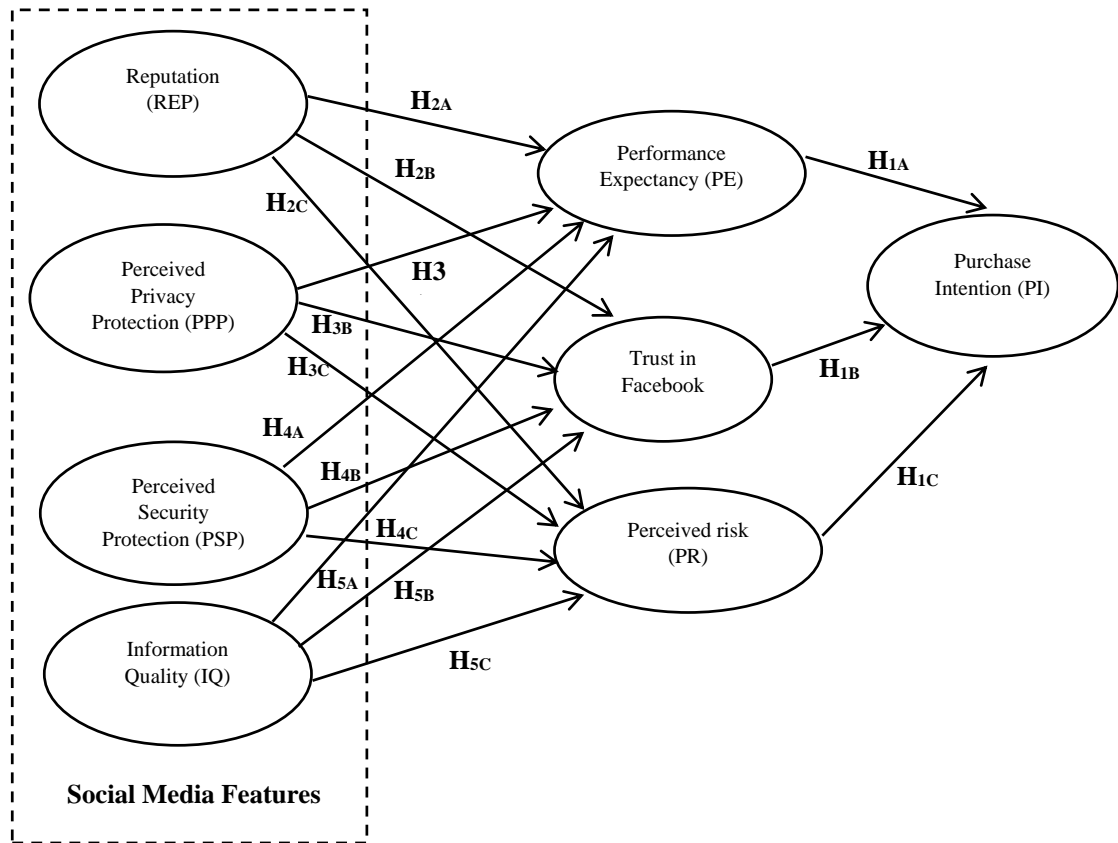


Figure 1 Conceptual framework

Research methodology

Measurement

The items for all the constructs are collected from past literature and included in Appendix A, namely: positive reputation (REP) adapted from Jarvenpaa et al (2000), Moorman, Deshpande, & Zaltman (1993) and Gefen (2000); perceived privacy protection (PPP) from Kim et al. (2008); perceived security protection (PSP) from Gefen (2000) and Kim et al. (2008); information quality from Doll & Torkzadeh (1988) ; performance

expectancy from Venkatesh et al. (2012); trust and behavior intention from Gefen (2000) and Jarvenpaa et al (2000); and perceived risk from Jarvenpaa et al (2000) and Kohli (1989).

To test the hypothesized relationships in the proposed research model, a questionnaire was developed. A five-point quantitative scale was used to measure all the items, where 1 was 'strongly disagree', and 5 was 'strongly agree'. Its content validity was reviewed by language experts from a university. Since the questionnaire was conducted in Thailand, the English version of the

instrument was translated into Thai language. Then, it was reverse translated into English to confirm translation equivalence.

Sample and procedure

After eliminating outliers and incomplete responses, four hundred and fifty five (455) sets of responses were collected. A network and quota sampling technique was used to collect data. Undergraduate students recruited survey participants from their social networks, with survey distribution through Facebook

messenger. The survey was created online using Google Docs. The sample was taken solely from people who had previously purchased products through Facebook, and were aged between 18 to 24 years old since this age group represents the biggest percentage of Facebook users in Thailand. The sample size is considered appropriate using G*Power 3.1.9.2 software (Faul, Erdfelder, Buchner & Lang, 2009) with an effect size of 0.15, a confidence interval of 0.05, and a confidence power of 0.95, as the required minimum sample size is 146. Sample characteristics are presented in Table 1.

Table 1 Profile of respondents in this survey

Characteristics	Number (persons)	Percentage
Gender		
• Male	166	36.5
• Female	289	63.5
Marital status		
• Single	359	78.9
• Married without children	55	12.1
• Married with children	41	9
Educational level		
• High school (M4-M5)	65	14.3
• College/Vocational school or equivalent	76	16.7
• Bachelor degree	304	66.8
• Master degree or higher	8	1.8
Occupation		
• Government officer	39	12.6
• Staff/Management in private company	59	18
• Business owner	66	22.7
• Student	284	44.7
• Others	4	1.4
Personal income (Baht / month)		
• Not more than 15,000 baht	194	39.3

• 15,001-25,000 baht	211	42.7
• 25,001-35,000 baht	71	14.4
• 35,001-45,000 baht	10	2
• More than 45,001 baht	3	0.6
Region of Thailand		
• Southern Thailand	179	39.3
• Northeastern Thailand	34	7.5
• Central Thailand	47	10.3
• Northern Thailand	195	42.9

Data analysis and results

Following the suggestion of Hair, Hult, Ringle & Sarstedt (2017), Partial Least Square Structural Equation Modeling (PLS-SEM) was used instead of covariance-based SEM (CB-SEM) as this study was for prediction of key constructs in an extended theory, and not a theory confirmation. SmartPLS 3.2.6 (Ringle, Wende, Becker, 2015) software was used to perform PLS-SEM.

Measurement model assessment

The measurement model was examined using internal reliability and convergent and discriminant validity (Hair et al., 2017). Internal reliability was measured with three indices: Factor Loadings, Cronbach's Alpha values, and Composite Reliability, as shown in Table

2. The measurement items had outer loadings ranging from 0.716 to 0.908, higher than 0.7082, which indicates the latent variable's ability to explain at least 50% of each indicator's variance. The composite reliability for the constructs ranged from 0.829 to 0.925, which were well above the required minimum level of 0.60 to reach a satisfactory composite reliability in exploratory research (Bagozzi and Yi, 1988) and below the 0.95 level (Hair et al., 2017). Other than PE, Cronbach's alpha value of the constructs ranged from 0.729 to 0.899, exceeding 0.7 which is the commonly accepted cut-off value (Nunnally, 1978). However, PLS-SEM has been known to underestimate Cronbach's alpha as it calculates the indicators according to their individual outer loadings instead of using equal outer loadings of the construct. As given, AVE and composite reliability values should be relied more for internal reliability analysis in PLS-SEM (Hair et al. (2017).

Table 2 Reliability analysis

Construct	Items	Loading	Cronbach's Alpha	CR	AVE
REP	REP1	0.774	0.785	0.86	0.607
	REP2	0.824			
	REP3	0.772			
	REP4	0.743			
PPP	PPP1	0.796	0.899	0.925	0.713
	PPP2	0.893			
	PPP3	0.873			
	PPP4	0.843			
	PPP5	0.812			
PSP	PSP1	0.807	0.722	0.844	0.644
	PSP2	0.833			
	PSP3	0.766			
IQ	IQ1	0.722	0.767	0.852	0.590
	IQ2	0.716			
	IQ3	0.813			
	IQ4	0.816			
PE	PE1	0.831	0.69	0.829	0.618
	PE2	0.783			
	PE3	0.743			
TR	TR1	0.797	0.743	0.854	0.661
	TR2	0.866			
	TR3	0.773			
PR	PR1	0.894	0.769	0.897	0.812
	PR2	0.908			
PI	PI1	0.856	0.762	0.863	0.678
	PI2	0.759			
	PI3	0.852			

Both convergent validity and discriminant validity were used to assess constructs' validity. Convergent validity is measured by the Average Variance Extracted (AVE). The AVE for the latent constructs ranged from 0.590 to 0.812, above the acceptable value of 0.50 (Bagozzi and Yi, 1988), which indicates

high levels of convergent validity. Discriminant validity was measured by Fornell and Larcker's (1981) approach, cross loading examination and the Heterotrait-Monotrait ratio of correlations (HTMT) criteria. Table 3 clearly shows that discriminant validity was met since the square roots of all the

constructs are higher than the corresponding latent variable correlations. Studying the cross loading in Table 4, the indicator's loading to its latent construct is much larger than that of other constructs. Table 5 shows all of

the HTMT ratios of correlation of the construct are below the acceptable value of 0.90 (Henseler, Ringle, & Sarstedt, 2015). On the basis of the above, the constructs have both reliability and validity.

Table 3 Discriminant validity assessment

	REP	PPP	PSP	IQ	PE	TR	PR	PI
REP	0.779							
PPP	-0.027	0.844						
PSP	0.308	0.406	0.802					
IQ	0.478	0.225	0.603	0.768				
PE	0.191	0.039	0.164	0.215	0.786			
TR	0.486	0.151	0.586	0.609	0.256	0.813		
PR	-0.124	-0.58	-0.349	-0.266	-0.135	-0.261	0.901	
PI	0.527	-0.046	0.439	0.531	0.255	0.595	-0.215	0.824

Table 4 Cross loading

	REP	IQ	PPP	PSP	PE	TR	PR	BI_
REP1	0.774	-0.045	0.173	0.396	0.167	0.376	-0.033	0.413
REP2	0.824	-0.03	0.146	0.359	0.152	0.322	-0.081	0.380
REP3	0.772	0.061	0.331	0.371	0.135	0.433	-0.244	0.389
REP4	0.743	-0.094	0.28	0.359	0.142	0.361	0.017	0.462
PPP1	0.041	0.796	0.381	0.268	0.045	0.230	-0.449	0.002
PPP2	-0.006	0.893	0.337	0.231	0.056	0.110	-0.497	-0.074
PPP3	-0.046	0.873	0.302	0.190	0.033	0.095	-0.495	-0.061
PPP4	0.018	0.843	0.315	0.146	-0.03	0.064	-0.500	-0.039
PPP5	-0.113	0.812	0.376	0.119	0.059	0.137	-0.505	-0.021
PSP1	0.219	0.395	0.807	0.412	0.105	0.448	-0.303	0.321
PSP2	0.205	0.425	0.833	0.509	0.123	0.439	-0.355	0.280
PSP3	0.315	0.158	0.766	0.529	0.165	0.522	-0.181	0.455
IQ1	0.454	0.072	0.346	0.722	0.175	0.433	-0.158	0.416
IQ2	0.276	0.281	0.395	0.716	0.154	0.411	-0.267	0.313

IQ3	0.341	0.205	0.531	0.813	0.118	0.462	-0.211	0.392
IQ4	0.398	0.141	0.561	0.816	0.207	0.552	-0.185	0.496
PE1	0.187	0.021	0.126	0.212	0.831	0.232	-0.119	0.180
PE2	0.160	0.043	0.111	0.141	0.783	0.171	-0.110	0.203
PE3	0.100	0.03	0.149	0.151	0.743	0.199	-0.087	0.221
TR1	0.552	-0.062	0.371	0.445	0.230	0.797	-0.149	0.547
TR2	0.359	0.265	0.594	0.569	0.185	0.866	-0.288	0.467
TR3	0.255	0.172	0.463	0.470	0.212	0.773	-0.197	0.430
PR1	-0.117	-0.514	-0.266	-0.211	-0.152	-0.203	0.894	-0.179
PR2	-0.107	-0.531	-0.36	-0.266	-0.093	-0.265	0.908	-0.208
PI1	0.430	-0.101	0.376	0.447	0.237	0.512	-0.144	0.856
PI2	0.398	0.127	0.386	0.356	0.167	0.426	-0.294	0.759
PI3	0.471	-0.115	0.329	0.500	0.223	0.525	-0.114	0.852

Table 5 Heterotrait-monotrait ratio (HTMT)

	REP	PPP	PSP	IQ	PE	TR	PR	PI
REP								
PPP	0.102							
PSP	0.396	0.504						
IQ	0.614	0.275	0.801					
PE	0.258	0.068	0.232	0.291				
TR	0.617	0.266	0.799	0.8	0.358			
PR	0.156	0.697	0.466	0.347	0.186	0.342		
PI	0.68	0.168	0.596	0.684	0.351	0.784	0.291	

Structural model assessment

The evaluation criteria for the goodness of the structural model are the R^2 measure of the coefficient of determination and the level of significance of the path coefficients (beta values) (Hair et al., 2017). The structural model accounted for 36.4% of the variance for purchase intention (PI). Hair et al., (2017) recommended cut-off values of 0.25, 0.5 and 0.75 to define a weak, moderate, and

strong coefficient of determination. The path coefficients of the structural model had been measured using the bootstrap resampling method (Henseler, Ringle, & Sinkovics, 2009), with 5000 iterations of resampling (Chin, 1998). The same model estimation also reveals the R^2 for the other latent constructs; social media's reputation, perceived privacy protection, security protection and information quality (REP, PPP, PSP and IQ) were

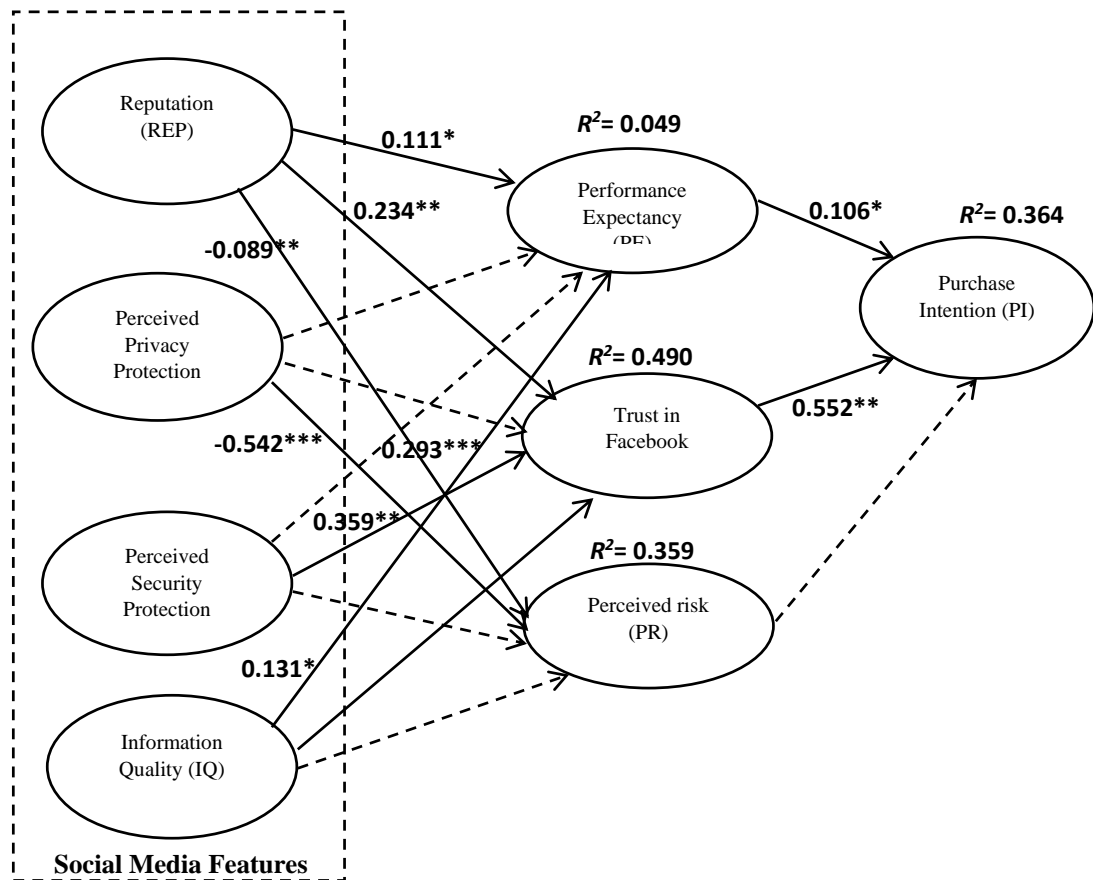
found to explain 4.9 % of the variance in performance expectancy (PE); 49% of the variance in trust (TR) and 35.9% of the variance in perceived risk (PR). The low score of R^2 for performance expectancy indicates that REP, PPP, PSP and IQ only can explain small amount of variance in performance expectancy. However, this model still has statistically significant explanatory power and can be used to better understand the s-commerce phenomenon.

Hypotheses testing

As displayed in Table 6 and Figure 2, the results revealed some significant relationships, confirming and contradicting our various hypotheses about the construct relationships. TR had the most significant influence on PI, followed by PE. On the other hand, PR had no significant effect on PI. PE is influenced by REP and IQ. TR is influenced by PSP, IQ and REP. PR is influenced by PPP and REP.

Table 6 Significance testing results of the structural model path coefficients

Hypothesis	Path	Path Coefficients	STDEV	t-Value	p-Value	Result	R^2	f^2
H _{1A}	PE -> PI	0.106	0.043	2.471	0.014	Supported	0.364	0.017
H _{1B}	TR -> PI	0.552	0.037	14.961	0	Supported		0.426
H _{1C}	PR -> PI	-0.057	0.043	1.323	0.186	Not supported		0.005
H _{2A}	REP -> PE	0.111	0.053	2.087	0.037	Supported	0.049	0.01
H _{3A}	PPP -> PE	-0.009	0.054	0.175	0.861	Not supported		0
H _{4A}	PSP -> PE	0.055	0.058	0.939	0.348	Not supported		0.002
H _{5A}	IQ -> PE	0.131	0.061	2.13	0.033	Supported		0.01
H _{2B}	REP -> TR	0.234	0.037	6.321	0	Supported	0.490	0.081
H _{3B}	PPP -> TR	-0.055	0.038	1.441	0.15	Not supported		0.005
H _{4B}	PSP -> TR	0.359	0.048	7.492	0	Supported		0.141
H _{5B}	IQ -> TR	0.293	0.046	6.432	0	Supported		0.092
H _{2C}	REP -> PR	-0.089	0.042	2.114	0.035	Supported	0.359	0.009
H _{3C}	PPP -> PR	-0.542	0.042	12.897	0	Supported		0.374
H _{4C}	PSP -> PR	-0.063	0.057	1.104	0.27	Not supported		0.003
H _{5C}	IQ -> PR	-0.063	0.058	1.091	0.275	Not supported		0.003



Note: * $p < .10$; ** $p < .05$; *** $p < .01$

Figure 2 Structural model analysis

Discussion

Key findings

Following previous study (Mardjo, 2018), social media features were found to influence purchase intention through trust in social media and performance expectancy. On the other hand, perceived risk, in contrast with that study (Mardjo, 2018), has no significant effect on the respondents' purchase intention. A plausible explanation for this surprising

result is because the age of respondents were between 18-24 years old. Most of people in this age group have lower income levels and purchase low value price items. As such, perceived risk has no effect on their purchase intention.

In addition, low R^2 value of performance expectancy indicates that social media features (reputation, perceived privacy, security and information quality) are not suitable predictors to explain this construct. Therefore, additional constructs should be used to explain

performance expectancy. Unique characteristic of s-commerce is its ability to provide social functionalities, such as other members' opinions/reviews, forums' participation, experience sharing, and products/services recommendations, that can have an influence over other consumers' decision making (Hajli, 2015; Hajli, Lin, Featherman, & Wang, 2014). As given, constructs those are related to social functionalities and unique to s-commerce, such perceived social presence and peer recommendation, are excellent candidates of predictors for the future model.

The result showed that social media's reputation and information quality are important features as they influence both performance expectancy and trust in social media, which subsequently influence the purchase intention in s-commerce. The more reputable the social media, the lower perceived risk and the higher performance expectancy and trust in social media that the customers have. Alraimi, Zo & Ciganek (2015, p30) claimed that "reputation is a valuable and intangible asset" as it is providing past information that the company has honored or met its obligations toward other consumers. In the context of this study, a positive reputation of Facebook influenced respondents' belief that Facebook was more likely to continue its good behavior and had higher reliability and therefore, considered it to be beneficial to use Facebook as s-commerce platform.

Although information quality has been conceptualized and investigated in an e-commerce context (DeLone and McLeann, 2003; Aldás-Manzano, Currás-Pérez & Sanz-Blas, 2011), this

construct has been under studied in the s-commerce context (Chen, Su and Widjaja, 2016). Chen et al. (2016) claimed that information quality deserves further investigation in s-commerce contexts because, unlike a normal e-commerce environment, online marketers on social media websites are unable to manipulate consumers' sense of vision by altering the environmental design and feature of the site, such as changing the website design, navigation structure, or color scheme that aim to stimulate impulse buying. The success of transactions in s-commerce is influenced by user generated content, which generates different issues from normal e-commerce.

This study found that accurate, up-to-date, and comprehensive information in social media is significant to stimulate performance expectation and trust in social media. A possible explanation is that high quality information in Facebook helped respondents to evaluate shopping products/e-vendors and make better purchase decisions, which subsequently invoked better trust in Facebook among respondents. Furthermore, respondents spent less time and effort on information gathering and scrutinizing, thereby giving them a positive experience and increasing their performance expectancy to use the social media for online transactions.

Compared to reputation and information quality, perceived security protection has the most significant effects on trust, which is the most important determinant of purchase intention. It can be inferred that a social media which offers adequate security protection gained the trust of respondents, more than either a reputable high quality information website. Thus,

although perceived security protection is only significant for trust, it is very important determinant to influence s-commerce. Knowledge of security features and protection mechanisms in Facebook caused respondents' recognition of its efforts to protect them from unlawful actions and, therefore, increased their trust in Facebook. Contradicting study by Kim et al. (2008), perceived security protection doesn't have significant effect on perceived risk. Plausible explanation is that Facebook in Thailand was mainly used for posting product or services. Critical and vulnerable activity, such as payment is conducted outside Facebook. Combined with low value purchases associated with this age group and the inexpensive nature of goods sold in Facebook (Booasang, 2017), the transactions can be considered as low risk. After the trade-off estimation between perceived risk and taking security risks, the respondents found perceived risk worthy despite the questionable security protection.

Perceived risk is mainly influence by perceived privacy protection. However, perceived risk is not a significant influence on purchase intention, making perceived privacy protection as uncritical factor in s-commerce. There is also no evidence for the impact of perceived privacy protection on performance expectancy and trust, which contradicting prior prediction. A possible answer is that most respondents combined Facebook with other messaging apps, such as Line, for private direct communication regarding payment and delivery information. By engaging respondents directly online and making business communications more private, these apps diminished the need of privacy protection in Facebook.

Contributions of this study

The most important theoretical contribution of this study is the creation and validation of an empirical model that explains how social media features exert its impact on s-commerce. Despite the recent increase in studies on social commerce, this topic has been understudied so far. Thus, proposing and testing this allows me to identify the relevant explanatory variables and how they influence behavior. The results not only extend the literature with new theoretical knowledge, but also provide insightful practical implications.

First, the findings of this study suggest that in order to attract more customers towards s-commerce, it is not going to be sufficient to merely introduce s-commerce. E-vendors need to develop the belief of usefulness of the s-commerce and the trust in social media as well. Moreover, it is of prime importance for e-vendors to select a social media, which is reputable, secure, and provides high quality information for their users. A reputable social media also typically has a large following, which can help to raise business awareness and audience reach.

Second, reputation of social media plays an important role to encourage s-commerce. As given, social media managers need to differentiate themselves from competitors. Social media managers need to be aware of and keep up to date with customers' needs, industry developments, competition, and news which could help to guide better business practices; monitor the reputation by encouraging customer feedback; be accessible and respond quickly to questions from customers to

build good relationships; promote their websites for wider publicity; and most importantly, be honest.

Third, information quality is critical for performance expectancy and trust, which are two most significant factors that influence purchase intention. Acknowledging this, social media managers need to devote more resources on refining the quality (e.g., timeliness, accuracy, and reliability) of their information. Social media websites should be able to present high quality, personalized information according to consumer demands/profiles. However, social media managers need to obtain consumers' permission in advance because this personalization may cause consumers to have privacy and risk concerns.

Finally, because of perceived security protection's significant impact on trust, social media managers must increase the security on their websites, which includes the implementation and reinforcement of protocols and applications (i.e. digital signatures, encryption algorithms) to decrease negative outcomes in online transactions.

Limitations and future research

This study has some limitations. First, this study used a non-random sample, which impairs the ability to generalize the results. Second, this study only tested the model with the respondents that use Facebook to purchase products. Thus, the results may not be applicable to other social media. Future studies should look at other social media platforms, such as Instagram, YouTube, etc., for

comparative analysis. Third, the findings are based on survey data; other methods such as in depth interviews and observations could provide a complementary picture of the findings.

Since s-commerce is a global phenomenon, it also would be interesting to replicate this study in different countries. I also propose including additional constructs into the research model to improve the prediction of performance expectancy to purchase products through Facebook. These other constructs could include factors, such as social presence and peer recommendation.

Conclusions

In terms of online transactions performed through social media, businesses need to understand the impact of social media features on potential customers and what features that will influence them towards s-commerce. This study represented a systematic approach and found the following constructs to have significant impact: reputation, information quality and perceived security protection. The limitations related to the generalizability and contexts encourage future studies to be done with larger, broader, sample from different geographical locations to explore how this result can be generalized to other populations. Future research should also consider testing the model using other social media as it would be interesting to be able to make comparisons among the various social media facilitated by the Web 2.0 technologies. Overall, the findings of this work enrich our understanding of s-commerce.



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Appendix Measurement items for constructs.

Construct	Items	Adopted from
Performance Expectancy (PE)	PE1. Using Facebook is very useful in the purchasing process. PE2. Using Facebook helps me to accomplish the purchasing process more quickly. PE3. Using Facebook increases my efficiency in the purchasing process. PE4. Using Facebook improves the performance in the purchasing process	Venkatesh et al (2012)
Trust (TR)	TR1. Facebook is trustworthy. TR2. Facebook gives the impression that it keeps promises and commitments. TR3. I believe that this Facebook has my best interests in mind.	Gefen (2000), Jarvenpaa et al (2000)
Perceived risk (PR)	RISK1. Purchasing from Facebook would involve more product risk (i.e. not working, defective product) when compared with more traditional ways of shopping RISK2. How would you rate your overall perception of risk from this site?	Jarvenpaa et al (2000), Kohli (1989)
Purchase behavior intention through Facebook (PI)	BI1. I am likely to purchase products on Facebook. BI2. I am likely to recommend Facebook to my friends. BI3. I am likely to make another purchase from Facebook if I need the products that I will buy.	Gefen (2000), Jarvenpaa et al (2000)
Positive Reputation (REP)	REP1. Facebook is well known. REP2. Facebook has a good reputation. REP3. Facebook has a reputation for being honest. REP4. I am familiar with the name of Facebook	Jarvenpaa et al (2000); Moorman et al (1993); Gefen (2000)
Information Quality (IQ)	IQ1. Facebook provides correct information about the item that I want to purchase. IQ2. Facebook provides timely information on the item IQ3. Facebook provides sufficient information when I try to make a transaction. IQ4. I am satisfied with the information that Facebook provides.	Doll & Torkzadeh (1988)
Perceived Privacy	PPP1. I am concerned that Facebook is collecting too much personal information from me.	Kim et al. (2008)



Protection (PPP)	PPP2. Facebook will use my personal information for other purposes without my authorization. PPP3. Facebook will share my personal information with other entities without my authorization. PPP4. I am concerned about the privacy of my personal information during a transaction. PPP5. Facebook will sell my personal information to others without my permission.	
Perceived Security Protection (PSP)	PSP1. Facebook implements security measures to protect Internet shoppers PSP2. Facebook usually ensures that transactional information is protected from accidentally being altered or destroyed during a transmission on the Internet. PSP3. I feel safe in making transactions on this Facebook	Gefen (2000), Kim et al. (2008)

PSYCHOLOGICAL FACTORS AFFECTING CONSUMERS' PURCHASE INTENTIONS OF AGARWOOD BEADS: A CASE STUDY OF NANNING CITY, CHINA

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Abstract

The purpose of the research is to understand the consumers' purchase behaviors and purchase intentions of Agarwood beads and also the effect of psychological factors on purchase intention of Agarwood bead. A total of 400 questionnaires were analyzed. Multiple regression analysis was used to examine the hypotheses. The findings indicate that the psychological factors (perception, motivation, learning, and attitude) had direct positive effect on consumers' purchase intentions of Agarwood beads. These findings will be useful for the Agarwood enterprises to aware the importance of psychological factors on consumers' purchase intentions. In addition, the findings of this research could provided effective information for the Agarwood enterprises to enhance the consumers' intentions of Agarwood beads.

Keywords: Purchase intention, Psychological factors, Agarwood beads.

Introduction

Agarwood is a kind of commercial natural product, which can be made into Agarwood beads, Agarwood oil, Agarwood incense, Agarwood medicine and so on. When Aquilaria tree (scientific name) is injured, it will secrete a lot of resin. When the resin is infected by a lot of insects, it will produce fragrant substance which is called Agarwood (Anak, Mulliken & Song, 2000).

It is very hard to produce Agarwood because the formation is complex and the process takes very long time. Agarwood had been used by many purposes mainly for medicine and religious purpose since 100 years ago. It can treat a lot of disease, like pleurisy, vomiting, asthma, cardiopathy, stomach aches, and cancers (Anak, Mulliken & Song, 2000).

In recent years, Agarwood has become a popular product around the world. Many countries had made and traded the Agarwood (Anak, Mulliken & Song, 2000). In China, Agarwood gets more and more attention from Chinese people. Chinese value trade of the Agarwood achieves one-third of total value in the world. In recent 5 years, the total trading value of Agarwood in China has increased year by year (Lv & Gao, 2013). Different Chinese people use Agarwood beads with different reasons and for different values such as curing health problems, treating cancer, reducing high blood pressure, praying evil spirits, and bringing good fortune (Chen, 2014; Xiao, 2014).

Although the Agarwood beads have become a popular product, there is a lack of research studying Agarwood beads on psychological factors affecting consumers' purchase intentions. In addition, it is very important and necessary for the Agarwood beads entrepreneurs to know the purchase behavior and psychological factors that affect purchase intentions of consumers.

Objectives

- 1) To understand consumer purchase behavior when buying Agarwood beads
- 2) To understand consumer purchase intentions when buying Agarwood beads.
- 3) To investigate psychological factors affecting consumer purchase intentions when buying Agarwood beads.

Research questions

- 1) What is the purchase behavior of buyers of Agarwood beads?
- 2) What are the consumers' purchase intentions towards buying Agarwood beads?
- 3) How psychological factors affect the purchase intentions of consumers buying Agarwood beads?

Literature review

Consumers' purchase behaviors

Purchase behaviors have been examined by researchers since 1970s (Sheth, 1996). Regarding the conception of purchase behaviors, Kotler and Keller (2006; p173) defined it as "a process which enables an organization to

understand how consumers select, buy, and dispose of goods, services, ideas, or experiences in order to satisfy their needs and wants”. It means that purchase behaviors refer to how the consumer selects, buys, and uses the products or services. Besides, Wani (2013; p10) defined purchase behaviors as “a decision-making process and physical activities that involved acquiring, evaluating, using, and disposing of goods and services”. It means that purchase behavior is the process in which consumer thinks, gets and uses the product. Both definitions aim at emphasizing the process of selecting, buying, and using the products or services.

According to Mohammadian (2013) as well as Sarker, Bose, Palit and Haque (2014), purchase behaviors of consumers refer to five elements: (1) where to buy (2) what to buy (3) when to buy (4) how often to buy and (5) how to buy.

Where to buy refers to “Place of purchase”. It means that consumers have a lot of choices in buying the same products in different stores (Mohammadian, 2013). What to buy refers to “Items of purchase”. It includes not only what product to buy, but also the amount of product to buy. The amount of product to buy depends on a lot of factors, such as consumers’ desires and types of product (Applebaum, 1951). When to buy refers to “Time of purchase”. The time of buying includes time and the season, or festival of

buying. How often to buy refers to “Frequency of purchase” (Sarker et al, 2014). How to buy relates to “Method of purchase”, such as the way the consumers pay the money (with cash or card), and if consumers go alone or go with friends.

The importance of consumers’ purchase behaviors has been studied by many researchers. For example, Edu, Negricea & Ionescu (2013) pointed out that purchase behaviors play an important role in letting organizations know more about consumers’ needs and wants. Besides, Webster and Wind (1996) pointed out that understanding the consumers’ purchase behaviors can help marketers obtain useful information about consumers and to identify their needs.

Researchers mentioned that there are four main factors influencing the purchase behaviors of consumers. These factors are psychological factors, social factors, cultural factors, and personal factors (Durmaz, 2014; Sarker et al., 2014). The psychological factors play an important role in explaining and predicting the behavior of the consumer, which is linked to the study (Underwood, 2002).

Purchase intention

According to Thokchom (2012), purchase intentions are the willingness to buy and the tendency of purchase. Purchase intention is defined as the time when the customer is willing to buy the product (Thokchom, 2012). Similarly,

Putro and Haryanto (2015) also stated that purchase intention is a situation when a consumer is willing and intends to purchase. So, purchase intention refers to the willingness to purchase products (LIU, 2013; Thokchom, 2012; Putro and Haryanto, 2015; Linh, 2014).

Thokchom (2012) mentioned that purchase intention, or willingness to buy, is also described as the likelihood of purchase of products. The positive purchase intention can be considered as the forecast of the actual buying behavior (Wang, 2012). It means that the higher the purchase intention the consumer has, the higher the likelihood the customer will make a purchase.

Purchase intention is a part of purchase behaviors. If a consumer intends to purchase a product, he/she will pay money to buy it (Grewal, Krishnan, Baker & Borin, 1998). However, Xie (2012) noted that purchase intention can affect the decision making of the consumer in the future. Purchase intention can not only help marketers to evaluate the purchasing power of consumers, but also present a degree of willingness of buying.

Psychological factors

Psychological factors play a very important role in influencing consumers' decision of making choices (Durmaz, 2014). The psychological factors are divided into four parts, which are perception, motivation, learning and attitude.

Consumers' perceptions

Perception is an important elements to the marketer because they can determine whether consumers buy the products or not (Hanna 2013). Johns and Saks (1983) defined the Perception as "the process of interpreting the messages of our senses to provide order and meaning for the environment". It refers to the process that people transfer out their thought and opinion about the environment. Strydom (2005) defined the perception as "the entire process in which an individual becomes aware of environment and interprets it so that it will fit into his/her own frame of reference". It means that people interpret the environment into different meanings according to their opinions. People perceive things though the individuals' five senses, which are *sight, hearing, touch, taste and smell* (Thanyamon, 2012). Consumer perception will be influenced by the knowledge and experience of different people (Lantos, 2010). The way of perceiving things depends on what people know about things (Strydom, 2005). Hanna (2013) and Lantos (2010) mentioned that Perception is very subjective. Different people have different perceptions toward the same thing, and also perceive the same thing differently in different times (Hanna, 2013).

According to Strydom (2005) and Lantos (2010), the process of perception consists of three stages; *exposure, attention, and interpretation*. People receive message at this stage. This is the process where the consumer comes into

contact with stimuli by hearing, tasting, smelling, touching and seeing (Strydom, 2005). Attention is the stage of processing the message. When people are interested in the stimuli, people will focus on the relevant information (Strydom, 2005). Interpretation is the stage of decoding the message. In this stage, people will translate the stimuli differently depending on their attitudes, beliefs and experiences (Lantos, 2010).

Consumers' motivations

Motivation is an important part of psychological research (Deci & Ryan 1985). Motivation refers to the reason why people behave (Deci & Ryan 1985; Chang, 2011). Chen (2012) defined motivation as “the basic driving force behind all the actions of the consumer.” It refers to the reason that drives consumer to act. Similarly, Solomon, Polegato, and Zaichkowsky (2009) defined the motivation as “the process that leads people to behave as they do”. It means that motivation is what leads people to behave. Different people act with different kinds of motivations (Ryan & Deci, 2000).

Based on different reasons of actions, motivation can be divided into two types. They are intrinsic motivation and extrinsic motivation (Ryan & Deci, 2000). Intrinsic motivation is a kind of “non-drive based” motivation (Deci & Ryan, 1985). It means that people interest in the activities and enjoy the process of taking part in activities. While extrinsic motivation refers to the

motivation that people take part in the activities in order to get other kinds of rewards, such as money and praise (Deci & Ryan 1985).

Motivation occurs when a consumer has his/her need, desire, or wants something (Solomon, Polegato & Zaichkowsky, 2009). According to the theory of Maslow hierarchy needs, the needs can be divided into five groups: physiological needs, safety needs, love and belonging needs, esteem needs and self-actualization needs (Maslow, 1943).

Firstly, physiological needs are the most basic needs of humans. Humans have to eat, drink, and breathe in order to survive (Maslow, 1943). These needs should be satisfied first (Reid-Cunningham, 2008). Secondly, safety needs refer to people's securities, for example job security, living in a safe environment, and being healthy. Safety needs come after the physiological needs (Ondabu, 2014). Thirdly, love and belonging needs refer to the love from family, friends, and society (Maslow, 1943). In this step, people want to be a member of a group and want to be accepted and loved by the group members (Reid-Cunningham, 2008). Fourthly, esteem needs not only refer to the self-confidence and self-respect, but also refer to the need of being respected and appreciated by other people (Maslow, 1943). This step directs the people's behavior to achieve higher goals (Ondabu, 2014). Finally, self-

actualization needs refer to the needs that people want to achieve everything what they can (Maslow, 1943).

Consumers' learnings

People's learning can form their experiences and can change their behaviors (Durmaz, 2014). Learning is defined as "changes in an individual's behavior arising from experience" (Olufisayo, 2011). Similarly, Lamb, Hair and McDaniel (2011) defined learning as "the process that makes changes in behavior through experience and practice". In other words, learning is the process of behavior changing from experience.

There are two types of learning: experiential learning and conceptual learning (Lamb, Hair & McDaniel, 2011). Experiential learning occurs through experience. People get this experience by using product and service directly. On the contrary, conceptual learning refers to learning from others' experience (Lamb, Hair & McDaniel, 2011). For example, consumers may get a recommendation from friends'. Once consumers learn the experience from other people instead of from themselves, then conceptual learning will occur.

Consumers' attitudes

Lamb, Hair and McDaniel (2011) mentioned that attitude is similar to value. Attitude is defined as "something pertaining to a person's tendency toward an object or an idea and his/her value evaluations and feelings about

something" (Chang, 2011). Similarly, attitude is also defined as "a settled way of thinking or feeling about something" (Palani & Sohrabi, 2013). Both these two definitions refer to people's feeling toward the object and its value in their heart.

Attitude is subjective because it is based on people's knowledge and faith (Palani & Sohrabi, 2013; Lamb, Hair & McDaniel, 2011). People's Attitude may not be based on the facts (Palani & Sohrabi, 2013), and their attitude links with people's perception because attitude is formed from the perception (Chang, 2011). Every consumer has her/his own attitude toward certain products and service (Lamb, Hair & McDaniel, 2011).

There are three components of attitude: cognition, affection, and conation (Chang, 2011; Palani & Sohrabi (2013)). Cognition refers to the process that people form the perception and belief according to the knowledge and experience of themselves. Palani and Sohrabi (2013) called this component as learning component. Affection refers to people's emotion from the experience, which is the feeling component (Palani & Sohrabi, 2013). Conation is the probability of people to behave, which is a doing component (Palani & Sohrabi, 2013).

In this research, the subject is Agarwood beads. People firstly will get information and knowledge from advertising or others' words. Then people will have

their own idea of Agarwood beads according to their previous experience and knowledge. Finally, people will form different attitudes towards Agarwood beads.

Hypotheses development

Consumers' perceptions and purchase intentions

Consumers often behave differently based on different perceptions (Šarčević, Lilić, Đorđević, Milićević, Vranić, Lakićević & Milijašević, 2011). There are a lot of studies about the relationship between consumer perception and purchase intention. For example, in the study conducted by Onozaka, Nurse and McFadden (2010), it is found that people have different perceptions toward local food. The more consumers have positive perceptions with local food, the more consumers intend to buy it (Onozaka, Nurse & McFadden, 2010).

In addition, the findings of Šarčević, et al (2011) also show that consumers have different perceptions toward the quality, price, convenience, and weight of the meat product. If the consumers perceive high quality of the meat product, they intend to buy it. It seems that there is a relationship between consumers' perceptions and their purchase intentions. Therefore, the H1 is presumed as follow.

Hypothesis 1 Consumers' perceptions will positively affect consumers' purchase intentions toward the Agarwood beads.

Consumers' Motivation and Purchase Intentions

There are a lot of studies focusing on the motivation in the consumer behavior context. Chen (2012) studied the consumers' motivations in purchasing the products via online, and found that there were four kinds of motivations affecting consumers' purchases these products. These were price, value, emotion, and achievement.

Additionally, the study conducted by Onozaka, Nurse and McFadden (2010) found that there were some motivation factors influencing consumers' purchases the local foods. These were providing health benefit, supporting local economy, and maintaining local farmland". Hence, it seems that motivation plays an important role in the consumer's purchase intentions. Therefore, the H2 is premised as follow:

Hypothesis 2 Consumers' motivations will positively affect consumers' purchase intentions toward the Agarwood beads.

Consumers' learnings and purchase intentions

What people learn from the experience will drive different behaviors in the future (Palani & Sohrabi, 2013). If people have a good experience with a product, they probably purchase the product again. On the contrary, people will not willing to buy product if they have a bad experience with it (Olufisayo, 2011). Therefore, the H3 is premised as follows:

Hypothesis 3 Consumers' learnings will positively affect consumers' purchase intentions toward the Agarwood beads

Consumers' attitudes and purchase intentions

The positive relationship between consumer attitude and purchase intention is well established. For example, the research by Chang (2011), showed that there were positive correlation between Chinese teenagers' attitudes and buying intentions of celebrity-endorsed apparel. Similarly, in the study of Putro and Haryanto (2015) which research the

purchase intention of online shopping on website Zalora, They proved that consumers' attitudes have the significant and positive relationship with the purchase intentions of shopping on Zalora. It appears that consumers' attitudes can affect the intention of purchase the products. Therefore, the H4 is premised as follow:

Hypothesis 4 Consumers' attitudes will positively affect consumers' purchase intentions toward the Agarwood beads.

Conceptual framework

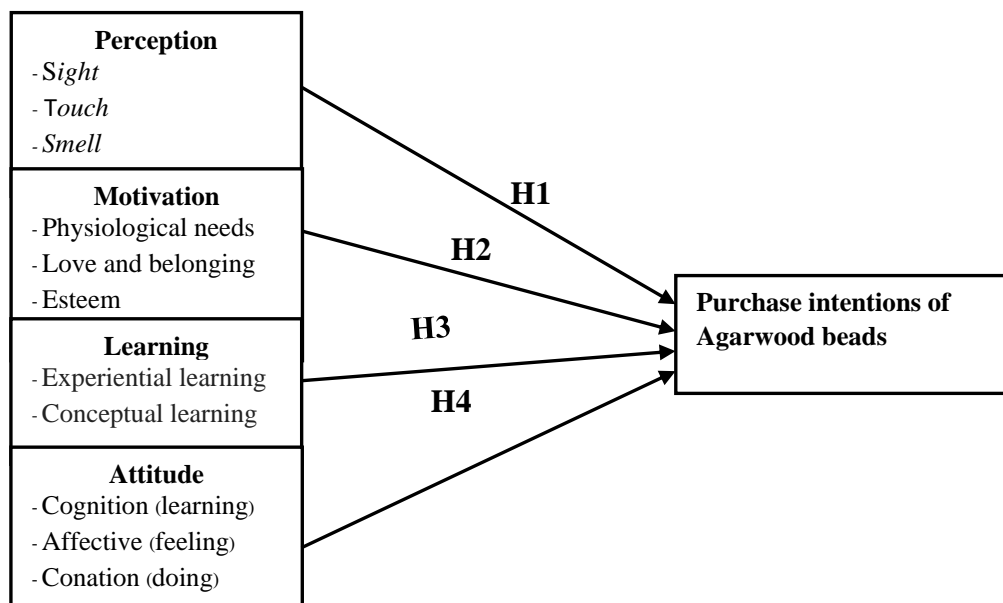


Figure 1 Conceptual framework

Research methodology

Research design

This research uses the quantitative method for testing the hypotheses which are related to the independent variables (perception, motivation, learning, and attitude) and dependent variable (purchase intention of Agarwood beads). The questionnaire is used to collect the data from sampling group.

Population and sampling

The target sample group of this research is consumers aging between 18 to 60 years old who purchased and intended to purchase Agarwood beads in Nanning city. The convenience sampling method was used to select the sample group. The sampling was conduct in the front of 14 Agarwood shops. 30 questionnaires were distributed at each shop. Then, totally there were 420 questionnaires distributed.

Questionnaire design

The questionnaire is designed based on the literature review and previous research. The questionnaire contains four parts. The first part is about the demographic information. All the questions in this part are designed as the multiple choices except the question of age which is designed as open question. The second part is about purchase

intentions of consumers. The third part is about the psychological factors which include consumers' perceptions, motivations, learnings, and attitudes about the Agarwood beads. The fourth part deals with the questions relating to purchase behaviors of Agarwood beads and the collection of information. All the questions are measured as a 5-point Likert Scale, which ranged from (1) strongly disagree to (5) strongly agree. The third part is about information search and purchase behavior of Agarwood beads. All the questions are measured as multiple choices.

Data results

Pretest and test reliability

The purpose of a reliability test is to ensure the quality of the questionnaire and the consistency of the result. In order to achieve a more accurate questionnaire, this thesis used the Cronbach's Alpha which is the most popular model measuring the reliability of a questionnaire. When the reliability value equals or is higher than 0.7, the questionnaire is reliable and can be used in data collection. The result of the coefficients is calculated by using Cronbach's alpha and the score showed as Table 1

Table 1 Reliability test using Cronbach's Alpha

Items	Cronbach's Alpha
Perception	0.708
P1: Before purchase the Agarwood beads, I choose the one that are smooth	0.706
P2: Agarwood beads contain rich oil	0.743
P3: Agarwood beads have a pure, refreshing and natural smell	0.807
Motivation	0.798
M1: If I use the Agarwood beads, I will have a good health	0.788
M2: I tend to buy the Agarwood beads because I want to be a member of a wealthy group	0.826
M3: I prefer to buy the Agarwood beads garner respect from others	0.805
M4: Agarwood beads can bring me good fortune to me	0.761
M5: Agarwood beads bring me peace of heart and soul	0.792
M6: I believe that Agarwood beads help people avoid evil spirits	0.733
Learning	0.785
L1: I learned about the Agarwood beads from many information sources	0.764
L2: I have knowledge about Agarwood beads	0.805
Attitude	0.808
A1: I feel that Agarwood beads are useful to me	0.801
A2: I like Agarwood beads	0.847
A3: I feel proud when I use Agarwood beads	0.815
Purchase intention	0.850
PI 1: I am willing to buy Agarwood beads.	0.831
PI 2: I am willing to recommend Agarwood beads to my friend and family	0.847

The values of Cronbach's Alpha shows that all the variables (perception, motivation, learning, attitude and purchase intention) are among 0.708 to 0.850. This suggests that the items in each variable are reliable.

Research results

Demographic characteristics

There were 420 questionnaires distributed, but 20 questionnaires were discarded as uncompleted answers. Therefore, 400 questionnaires were

analyzed. Most of respondents were male (50.7%). The major age range was from 18 to 30 years old (40%). Most respondents held bachelor degree (59.8%), and were business employees (38.5%). Most respondents have a monthly income ranges from 4,000 to 6,000 yuan (26.8%).

Consumers' purchasing behaviors

There were 355 respondents (88.8%) desiring to buy Agarwood Wrist band. 75% of respondents intent to buy in

Physical Agarwood shops. Most respondents (66.8%) tended to buy during festive period. There were 176 respondents willing to pay in cash (44%). Most respondents (53%) answered that they purchased the Agarwood beads only one time per year. 243 respondents (60.8%) ever bought Agarwood beads. 167 respondents

(41.8%) bought them because of friends' recommendations.

The results of agreement level on psychological factors and purchase intentions

The level of agreement concerning the psychological factors (perception, motivation, learning and attitude) and purchase intentions are shown in table 2

Table 2 Level of agreement of psychological factors

Item	Mean	Std. Deviation	Level of agreement
Perception	4.07	.570	Agree
Smooth	4.01	.818	Agree
Rich oil	4.13	.835	Agree
Natural smell	4.36	.777	Strong Agree
High price indicate high quality	3.79	1.026	Agree
Motivation	3.61	.729	Agree
Good health	4.10	.862	Agree
Wealth group	3.06	1.231	Neural
Respect from others	3.05	1.197	Neural
Good fortune	3.81	1.027	Agree
Peace for heart and soul	4.18	.822	Agree
Evil spirits	3.50	1.124	Agree
Learning	3.50	1.019	Agree
Learning from many sources	3.61	1.136	Agree
Have knowledge	3.40	1.096	Neural
Attitude	3.75	.797	Agree
Useful	3.71	1.017	Agree
Like	4.12	.847	Agree
Proud	3.43	1.081	Agree

From table 2, With regard to the individual item of perception, respondents rated Agarwood beads with “Natural smell” at the strongly agree level, while “Rich oil”, “Smooth”, and “High price indicates high quality” at the agree level. In term of motivation, respondents rated Agarwood beads with “Good health” , “Good fortune”, “Peace for heart and soul” and “Evil spirits” at the neural level, while “Wealth group” and “Respect from others” at the agree level. For learning

factor, respondents rated Agarwood beads with “Have knowledge” at the neural level, while “Learning from many source” at the agree level. Regarding to the attitude factor, respondents rated Agarwood beads with “Useful”, “Like” and “Proud” at the agree level.

The results of hypothesis testing

Hypothesis 1 Consumers’ perceptions will positively affect consumers’ purchase intentions toward the Agarwood beads.

Table 3 Regression of perception toward purchase intention

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R ²
	B	Std. Error	Beta			
(Constant)	1.347	.265		5.078	.000	0.209
Sight	.259	.052	.243	5.018	.000	
Touch	.325	.053	.310	6.182	.000	
Smell	.050	.056	.044	.887	.375	

From table 3, the multiple regression analysis identifies two of three dimensions of consumers’ perceptions influencing purchase intentions, and with a positive direction. Especially, sight ($t=5.018$, $p<0.01$), touch ($t=6.182$, $p<0.01$), contribute to the purchase intention. The more consumers perceived the Agarwood beads by sighting and touching, the more they intend to purchase them. However, consumers’ perceptions by smelling does not statistical significantly affect the

purchase intention Agarwood beads. Therefore, hypothesis 1 is partially supported. The R² value is 0.209 meaning that the independent variables (sight, touch, and smell) can explain about one fifth of the dependent variable (purchase intention).

Hypothesis 2 Consumers’ motivations will positively affect consumers’ purchase intentions toward the Agarwood beads.

Table 4 Regression of motivation toward purchase intention

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R ²
	B	Std. Error	Beta			
(Constant)	1.172	.201		5.823	.000	0.333
Physiological needs	.214	.048	.211	4.494	.000	
Love and belonging	.036	.036	.050	.976	.330	
Esteem need	.230	.054	.252	4.264	.000	
Self-actualization	.261	.058	.239	4.515	.000	

From table 4, the multiple regression analysis identifies three of four dimensions of consumers' motivations influencing purchase intention Agarwood beads with a positive direction. These dimensions are physiological needs ($t=4.494$, $p<0.01$), esteem needs ($t=4.264$, $p<0.01$) and self-actualization ($t=4.515$, $p<0.01$), except for love and belonging needs. This implies that the greater consumers have positive motivations, Especially, physiological needs, esteem needs, and self-actualization needs, the more they

intend to buy Agarwood beads. Therefore, hypothesis 2 is partially supported. When considering the R^2 , the value is 0.333 representing that physiological, esteem, and self-actualization needs can explain about one third of consumers' purchase intention the Agarwood beads.

Hypothesis 3 Consumers' learnings will positively affect consumers' purchase intentions toward the Agarwood beads.

Table 5 Regression of learning toward purchase intention

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R ²
	B	Std. Error	Beta			
(Constant)	2.228	.128		17.348	.000	0.329
Conceptual learning	.196	.042	.255	4.622	.000	
Experiential learning	.298	.044	.373	6.770	.000	

From table 5, the multiple regression analysis indicates both two dimensions of consumers' learnings positively affecting their purchase intentions the Agarwood beads. These are conceptual learning ($t=4.622$, $p<0.01$) and experiential learning ($t=6.770$, $p<0.01$). The more consumers positively learned about Agarwood beads, the greater they intended to purchase them.

Regarding to R^2 , the value is 0.329 meaning that conceptual learning and experiential learning can explain about one third of the consumers' purchase intentions.

Hypothesis 4 Consumers' attitudes will positively affect consumers' purchase intentions toward the Agarwood beads.

Table 6 Regression of attitude toward purchase intention

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R ²
	B	Std. Error	Beta			
(Constant)	.560	.144		3.888	.000	0.556
Cognitive (learning)	.482	.040	.467	11.974	.000	
Affective (felling)	.258	.036	.300	7.253	.000	
Conative (doing)	.129	.030	.159	4.275	.000	

From table 6, the multiple regression analysis indicates all three dimensions of consumers' attitudes positively influence their purchase intentions (see Table 6). There are cognitive (learning) ($t=11.974$, $p<0.01$), affective (felling) ($t=7.253$, $p<0.01$), and conative (doing) ($t=4.275$, $p<0.01$) It implies that the more consumers have positive attitudes toward the Agarwood beads, the greater they are likely to purchase them. Therefore, hypothesis 4 is fully supported, in that all of three dimensions of attitude are positively related to purchase intention. With regard to the R^2 , the value is 0.556 representing that the cognitive, affective, and conative

attitudes can explain about one half of consumers' purchase intentions the Agarwood beads.

Conclusion and implication

Conclusion

The self-administration questionnaires were collected in front of 14 Agarwood shops in Nanning, Guangxi. The 400 completed questionnaires were analyzed. Most respondents are between 18 and 30 years old and have a Bachelor's Degree in the aspect of education level. The majority respondents are general

employees which cover 38.5% of respondents. Most respondents have a monthly income from 4,000 to 6,000 CNY.

In terms of purchase behaviors, most of consumers prefer to purchase Agarwood Wrist band at Physical Agarwood shop in Festival period. As for the frequency of purchase, the majority respondents intend to purchase only one time per year. Most respondents prefer to use the credit card for purchase the Agarwood bead. The majority of respondents who bought Agarwood beads previously cover 60.8% of total respondents.

Hypothesis 1 aims at investigating the relationship between perception and purchase intention of Agarwood beads. The result of hypothesis shows that perception has a positive effect on purchase intention. The more positive perception (sight and touch) is, the greater the purchase intention will be in buying Agarwood beads.

Hypothesis 2 aims at investigating the relationship between motivation and purchase intention of Agarwood beads. The result of hypothesis shows that motivation has the positive impact on purchase intention. The more positive the perception (physiological needs, esteem need and self-actualization) is, the greater purchase intention in buying Agarwood beads will be.

Hypothesis 3 aims at investigating the relationship between learning and purchase intention of Agarwood beads. The result of hypothesis shows that learning positively affects purchase

intention. The more positive the learning (conceptual learning and experiential learning) is, the greater purchase intention in buying Agarwood beads will be.

Hypothesis 4 aims at investigating the relationship between attitude and purchase intention of Agarwood beads. The result of hypothesis shows that attitude has the positive affect purchase intention. The more positive the attitude which includes Cognitive (learning), Affective (feeling) and Conative (doing) is, the greater purchase intention in buying Agarwood beads will be.

Discussion

This section will discuss the result based on the 3 objectives in this study as follows: 1) to understand the consumer purchase behavior for Agarwood beads, 2) to understand the consumer purchase intention for Agarwood beads and 3) to investigate the psychological factors affecting the consumer purchase intention of Agarwood beads.

For the purchase intention of Agarwood beads, the respondents are willing to buy the Agarwood beads and willing to recommend buying the beads to their friends and family. For the purchase behaviors, most respondents intend to buy Agarwood wrist bands at Agarwood shops during festival periods. The respondent intend to buy one time per year by credit card.



The research of Huong (2012), found that consumer's perceptions play a significant positive role in the purchase intention of vegetables. The more positive the perception of the consumer, the more likely they will increase their purchase intention for vegetables is. The result in this current study supports the result from this previous study. The more positive the perceptions (sight and touch) consumers had, the more likely consumers would purchase the Agarwood beads.

The more consumers had positive motivations, especially. physiological needs, esteem needs, and self-actualization needs, the greater consumers tended to purchase the Agarwood beads. The results of this research is partially consistent with the results from the study of Chen (2012). He found that the motivations relating to profit, value, emotion, and achievement drove consumers purchasing products from the online.

The more positive learning which includes conceptual learning and experiential learning, the greater purchase intention in buying Agarwood beads is. The result in this study is supported by the statements from the previous studies. If people have a good experience with the products, they will repurchase them in the future (Olufisayo, 2011). Contrarily, people will not be willing to buy a product if they have bad experiences with it.

The research showed that there were three dimensions of attitude influencing

purchase intention in a positive direction. These factors are cognitive (learning), affective (feeling), and conative (doing). Similarly to the result of research by Chang (2011), it showed that there was positive correlation between the attitude and buying intention of celebrity endorsed apparel.

Implication of the study

Based on the finding of purchase behaviors, the Agarwood beads entrepreneurs should pay more attention to the Agarwood beads product, especially the Agarwood Wrist band. The entrepreneurs need to apply the beautiful and varied Agarwood Wrist bands to consumers because most consumers prefer to purchase Agarwood Wrist band instead of others Agarwood products. In addition, the Agarwood beads entrepreneurs should decorate the Agarwood shop to attract consumers because most respondents intend to purchase the Agarwood beads at the physical Agarwood shop. Moreover, the enterprises can offer some discount and sales promotion in the festive period to attract consumers, such as Mid-Autumn Festival or Chinese New Year because consumers prefer to purchase Agarwood beads in festival period.

In terms of information sources, the enterprises should give the information and provide powerful advertising about the Agarwood beads on the internet. Moreover, they have to offer good products to customers because customers can learn from their experiences and purchase due to friends'



recommendations. Regarding consumers' psychological factors and their purchase intentions, Agarwood beads entrepreneurs should focus on consumers' perceptions about sighting and touching the Agarwood beads. The more Agarwood beads are smooth and contain the rich oil, the more they are attracted by consumers. Moreover, the entrepreneurs need to pay attention to the consumers' motivations by providing information about physiological, esteem, and self-actualization needs of purchasing the Agarwood beads. In addition, the information and

advertisement should show the benefits of the Agarwood beads and how worth to buy. The salespersons should tell consumers about the usefulness of Agarwood beads. For example, it can help people to avoid evil spirit, to gain respect from others, to bring good fortune, and to make people healthy. The Agarwood beads entrepreneurs should always offer good products to consumers in order to attract them to buy the products. If consumers have the high knowledge and good experiences, they will be willing to purchase the Agarwood beads and recommend them to others.

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CUSTOMER SATISFACTION AND CUSTOMER LOYALTY OF THE COLD STORAGE INDUSTRY IN BANGKOK METROPOLITAN

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Abstract

Cold storage and warehousing is becoming more and more a critical activity in the supply chain to outperform competitors on customer service, lead time, and costs. Cold storage industries is the backbone of agriculture industries, logistics and supply chains in which an important of Thailand including food processing industry that very popular in domestic and international countries. With the current circumstance cold storage industry is high market competition. According to within the competitive marketing environment, companies are faced with the many challenges to stay competitive. Companies are consistently trying to establish the relationship with customer by satisfying them as much as possible.

This research studies aim to investigate the customer satisfaction and customer loyalty of the cold storage industry in Bangkok Metropolitan. These support the following objectives: to study the relationship of marketing mix (7P's) to customer satisfaction and customer loyalty in the cold storage industry in Bangkok Metropolitan. The researcher distributed 400 questionnaires for the completion of the sample size. The data collected were processed the outcome with the SPSS program analyses. Descriptive statistics consist of frequency, mean, percentage, standard deviation, and inferential statistics such as t-Test, One-Way ANOVA and the analyses the different group of testing by multiple comparisons are using Fisher's Least-Significant Different (LSD). The result showed the customer perception toward in 7P's in marketing had impact positive on customer satisfaction, and customer satisfaction had a positive impact on customer loyalty. It is can be useful to determine their target market and market competitiveness and also to make a good in marketing mix plan in order to enhancing and develop marketing strategy to get the outcome of customer satisfaction and customer loyalty.

Introduction

Trade Liberalization the service sector has affected the market competition. Especially, Thailand move forward to be Asian Economic Community (AEC). This is a high effect on market competition in business services. Cold storage is one of the business services is also affected by the liberalization, according to in quality of service and service charge. Nowadays, to develop in cold storage industries it is difficult to control. There are many cold storage industries to compete with the price-cutting on service on that how can they survive in the business. So, the customer satisfaction and customer loyalty are also important to them have awareness.

The objective of this study is to investigate and explore the customer satisfaction and customer loyalty of cold storage. This study only focuses on cold storage in Bangkok metropolitan such as Bangkok areas, Pathumthani, Nonthaburi, Samutprakarn, Samutsakorn, Nakhonpathom.

Cold storage is the core activity of warehousing and identifying a location where the goods a deposit and held until they are demanded usage. There are different size and shapes, and also different usage rate of the storage space. Typically, cold storage warehousing actually throughput activities such as receiving, transfer, handling, storage, picking, and expediting cold storage is the keys factors of import and exports in the countries and plays an important role in modern in global supply chains.

Cold storage industries is the backbone of agriculture industries, logistics and supply chains in which an important of Thailand including food processing

industry that very popular in domestic and international countries, because of in the way of life of consumers behavior have change to consumed inconvenience and quick that will be reflected on development of food processing industry need cold storage. Consequently, cold storage business is the new competition in the market. So, the entrepreneur those who want to invest in this kind of business have decision making in various factors even on the price war, flight over the customer, and service quality for customer satisfaction. However, in competition factors it depends on the efficiencies of each organization to conducting on quality of service, management system, ability to use technology in operations including responding in customer's need and want, building customer's relationship targeting that organization need to develop for survival in business.

The current situation, the number of cold storage has been increasing in the industry since the last decade. In Talad Thai areas a lot of infant cold storage industries and high competition industries in these sectors, cold storage entrepreneur needs to improve in service and strategic development to keep in existing customers and find new customers. The majority of cold storage customers around 50 – 70 percent are the retails customers, they have the ability to import product with less than a large company and re-purchase the imported product from the largest importer.

In addition, Chinese businessmen came to do business in Thailand and imported product from China. Rung Rueng Agri Food Co., Ltd. also have 8 – 15 Chinese customers. They are mostly imported China garlic, Onion, Orange and apple

from their country. Then, for the Thai retails customers they are imported India Chilies from India and purchase product in by using our cold storage to store the product. (Mr. Soo Hean Lee & Ms. Aporn Maneehiya, Managing Directors of Rung Rueng Agri Food Co., Ltd.)

Currently, cold storage industries in Bangkok metropolitan there are 157 industries with 360,657.80 square meters are the register to commercial service in 2015; as the table below;

Table 1 Cold storage industries registration in Bangkok metropolitan

No.	Area	Total
1	Bangkok	21
2	Pathumthani	25
3	Samutprakarn	16
4	Nakhonpathom	3
5	Nonthaburi	2
6	Samutsakhorn	43
7	Others	47
Total		157

Source: Department of Internal Trade, Ministry of Commerce (2015)

Table 2 Cold storage registrations in the country

No.	Area	Total	Square Metre
1	Centre	157	360,657.80
2	North	37	33,826.64
3	North Eastern	61	5,673.68
4	Southern	40	23,892.74
5	Eastern	10	30,535.28
Total		305	454,586.14

Source: Department of Internal Trade, Ministry of Commerce (2015)

From the table, there are many competitors in the cold storage industry in Bangkok Metropolitan. Therefore, building relationship with customer satisfaction and customer loyalty is the most an important construct in this field of businesses.

The benefits of building relationship of customer satisfaction and customer

loyalty in services business should be highlighted to raise the attention in the service industry. Actually business can generate benefits if we can build long-term relationships with customers; the benefits will be included in the lower costs, higher sales volume and more profits. (Kalwani and Narakesari,1995).

Therefore, cold storage industries have to pay more attention for the change of customer behaviors, and apply effective strategies in customer satisfaction, acquisition, retention, and loyalty in both short terms and long terms development. From the various investigations of service industries, (Reichheld and Sasser, 1990) to illustrate that a loyal customer is cover the major part of the profits while the cost of maintaining customers is often lower than the promotion cost aiming at acquiring new customers.

Presently, cold storage industries are facing with over demand of the customer, some customer or importer, and exporter they have owned cold storage. So, the factor in servicing customer is a crucial to keep customer satisfaction and customer loyalty. According to cold storage is the important role and needs for Thailand as known as riches in agriculture product. Thailand is going forward to become a country's industries, cold storage is the benefiting to preserve for agriculture product, extending capital flow and develop marketing mechanism system in a country to grow in the future.

Literature review

Currently, Warehouse is playing the more vital role than it ever has in success or failure in businesses (Frazelle, 2002). Cold storage warehousing is varying essential function in the operations of many organizations. They are provided for storage, distribution, consolidation of different types of cargos. Warehousing also that facility to provide in the right environmental conditions for storage of finished goods or materials required for the protection of security and safety (Gunasegaram et al., 1999). The

processes of warehouse need to be plan and control including inbound flow of handle, product to location assignment, product storage, stock order allocation, order batching and release, order picking, packing, value-added in logistic activity and shipment. (Ackerman and La Lande, 1980; Frazelle, 2002). The Storage and order picking are complexity, actually in labor-intensive processes in a determined performance of warehouse in the large part.

Basically, warehouse activity is concern about physical storage; retrieval of materials and the processing of information needed about the goods to store and handle data movement of goods. Typically, warehousing related to the major throughput activities such as receiving, transfer, handling, storage, picking and expediting.

According to the research on the topic of Customer satisfaction and customer loyalty of cold storage in Bangkok Metropolitan, Researcher have been studied the associated theories and concepts of other researchers to use as a source of this certain research, which are;

Marketing mix (7'Ps)

The customer activity in service marketing is the most important approach to understanding what are the businesses to success? (Drucker, 1954; Levitt, 1960). The customer activity in service should be mainly understanding within the boundaries' interactions with service providers. The outcome through customer-interaction in marketing services aims to support in customer value creation. Consequently, the concepts of marketing mix and additional 7 P's of service marketing has

been important in different contexts and industries' differentiation.

Thus, customer services play a crucial role of the industrial buyer's perceptions of the supplier's total product offering (Hutchison and Stolle 1968). Customer usually "expected in the service to be as much a part of what they buy as the product's service quality and price" Since cold storage is often viewed as encompass material management, manufacturing support and physical activity in storage of goods as related to all aspects of customer perspective.

The 7 P's of service marketing is a vital component of cold storage activity to contribute the level of customer service as company provided. Recently, increasing of industries services, customer has a lot of option and alternative to switch into others company services, they can easily switch over from services that who can provide in the better service at the lower costs. Hence, the marketing activities become more sophisticated in cold storage sector that is the great attention needs to be directed toward 7Ps in marketing such as product, price, place, promotion, people, process and physical evidence as related in customer lifecycle.

Product / Service

The product is anything that can be offered to a market for attention, acquisition, use or consumption that might satisfy a want or need. (Kotler, 2000). The broadly defined product includes physical objective, service events, person, place organization ideas, or mixes of those entities. In case of service, the product is nil or minimal (Bang and Philipp, 2013).

The product is all components and elements are necessary to do a service in generating value for a customer. The product is an element of the marketing mix in which respecting and corporate leads to the customer satisfaction. Hence, cold storage services are critical features value-added more sophisticated in service quality as well as minimizes cost in operations.

Price

Pricing has been a direct impact on customer satisfaction and the loyalty of customers (Consuegra et al., 2007; Bang and Phillip. 2013). In the cold storage industry, pricing it depends on electricity cost that firms have met and operations management cost and so on. If the charges price is not with fairness and competitiveness, the customer will be switching immediately. The customer now is becoming more sensitive to pricing and less loyal (Low, 2012). Many marketers investigated that the pricing is an important factor driving in different customer related variable such as customer satisfaction, customer attraction customer retention and customer loyalty (Low, 2012).

Place

The place is the location of the customer receives the product and service. Place is defined in which service organization uses activity in setting service distribution (Friars et al., 1985; Howcroft, 1993; Daniel and Storey, 1997; Thornton and White, 2001). In kind of cold storage, the place is where customers buy a product/service in distributing appropriate and convenient for the customer that available in the right place, at the right time and in the right



quantity, while keeping storage and distribution costs to an acceptable level.

Promotion

Promotion is the ways of company communicates what they do and can offer to the customers. Is activities including such as branding advertising, corporate identity, public relationship, sale management, special offers, exhibitions, and anything else give a customer a reason to choose the product rather than someone else's.

Promotion purpose should always be to create awareness and understanding of benefits of service among customer. Service promotion has defined the extension of company services use distribution channel and activities in setting a service distribution and elements in formulating a service promotion strategy (Bitner, 1992; Peattie et al., 1997; Amis et al., 1999; Ennew, Bannerjee, and Li, 2000).

People

People are the component to provide product/service to the customer. In product and service providers the people can be an importance source of differentiation as well as a competitive advantage (Lovelock et al., 2007; Raj et al., 2014). In the service providers is defined in which a service organization is customer oriented in practicing it business; putting a customer in the heart of business activity (Drukker, 1968; Zeithaml et al., 1986; Narver and Slater, 1990; Deshpande et al., 1993; Slater and Narver, 1994; Chang and Chen, 1998; Doyle, 1999). Therefore, in cold storage, the employee's attention should be focused on service quality and to develop their service skill consistently. Many

arguments were that the employee (People) is crucial of the firms who represented the organization to the customer.

Process

In the process of service is the giving services and the behavior of those who deliver are crucial to customer satisfaction. The process could be a great source of competitive advantage if used wisely. According to the cold storage, a service process has defined the extent to which organization services set to customer oriented and systematic procedures for the achievement service delivery process. The dimension of the process refers to the mechanisms, procedures, and activities flow by which the offering is delivered (Booms and Bitner, 1981).

Physical evidence

Service to customers often intangible and customer cannot assess their quality as well, so, the customers use the service environment as importance to substitute for quality (Shanker, 2002). Service environment also call physical evidence related style and appearance of physical surrounding and others elements experiential to encountered to customer in sites of service delivery (Lovelock et al., 2007; Klause and Maklan, 2012). The Physical evidence also importance for cold storage because it conveys to the customer in the external image of service package (Miles et al., 2012). Physical evidence are crucial that is refer to environment and facilities needs by the firms to provide service to customer and can prevent that a customer leave the company without any purchase service from others.

Customer satisfaction

Many researchers were measures on Customer satisfaction are how the product and services supplied by the firms to customer expectation. Customer Satisfaction is defined as the overall level of attainment of a customer's expectations. (Akinboadeet al., 2012). According to the general of customer satisfaction are focusing on perceived value, and satisfaction as modeled within a confirmation/disconfirmation paradigm (Krampf et al., 2003).

Customer satisfaction in kind of cold storage is the pleasure and well being feeling on that are they got or expected from the company in services. The satisfaction is depending on the level of pleasure or displeasure in originating from their expectation of the services.

Accordingly the satisfaction is the consumer's fulfillment response in judgment on a product and services feature or the product/ service itself.

Theoretical foundations for customer satisfaction

Theoretical models in the conceptualization of Customer Satisfaction are constructed in three models such as Kano's Model, Disconfirmation of expectations model, and American customer satisfaction model (ACSM). Each model is classified as below;

The Kano model

Kano models classify a product or service are attributed to how are they perceived value by customer affected on customer satisfaction.

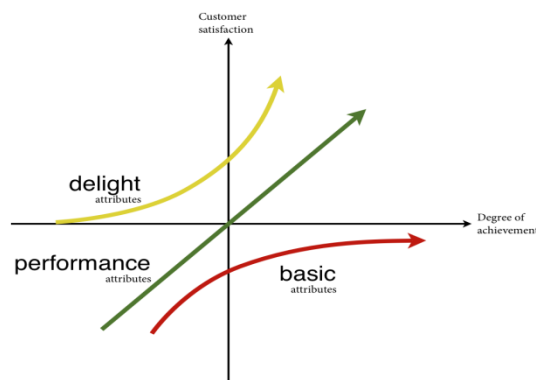


Figure 1 Kano model diagram

According to the researcher contributed that service or product attributes into three categories indifferently on customer satisfaction will be affected of each category such as basic factors, performance factors, and excitement

factors (Chen et al., 2011). Consequently, this model explains how customer satisfactions are changed as customer requirements are met through a product or service.

Basic attributes are the expected attributes or “musts” of a product/service, and could not provide an opportunity for product or service differentiation. Increasing the performance of these attributes provides diminishing returns in terms of customer satisfaction.

Performance attributes generally are better; it will be improving customer satisfaction. If they are weak on their performance attribute can reduce customer satisfaction. The price of service for which customer is willing to pay for a product or service is closely tied

in the performance attributes. For example, for cold storage customer, they will be willing to pay more for a service if provide them with quality in service and make them satisfaction.

Excitement attributes are unexpected need by customers but can be in high levels result of customer satisfaction. In a market competitive where are the industrial “service provided similar performance providing excitement attributes the unexpected need of customer can provided competitiveness advantage.

The theory of expectancy disconfirmation model

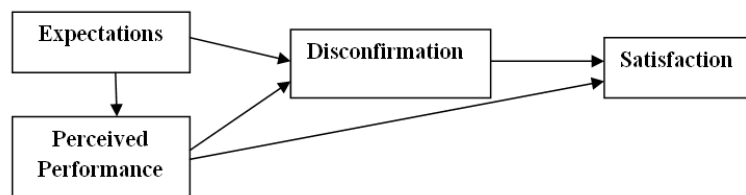


Figure 2 The theory of expectancy disconfirmation

This theory can be measured in the customer satisfaction from perceived quality of products or services in order to measure the customer’s satisfaction. Expectancy Disconfirmation Theory has two variables are the expectation or desire and experience or perceived performance. The expectation is related to the pre-purchased time period that a customer has initial expectation or desire about a specific performance such as quality of products or services. Experience or perceived performance is related to the after- purchase time period

that the customer gets the experience after perceiving a real performance such as quality of a specific product or service.

According to in this circumstance cold storage industry is high market competition. The designing in qualified of products and services will be more successful in attracting customer satisfaction. So, Expectancy Disconfirmation Theory is an empowerment tool to measure customer’s satisfaction and ability to cover in the relationship among these

concepts. This study focuses on a review of “Expectancy Disconfirmation Theory” (EDT) as a famous theory in measuring customer’s satisfaction.

However, Confirmed expectations will occur when the expectation of customer match the standard with the customer perceptions. In another word, when customer expectation is the lower than on their expectation it will be negative disconfirmation (Spreng and Chiou, 2002). A positive disconfirmation can be lead to in the positive of word-of-mouth (WOM) and customer retention. The Negative disconfirmation will occur when the worse of performance standard. So, in comparison to customer expectations to their perceptions leads in expectations confirmed or disconfirmed.

American customer satisfaction model (ACSM)

American customer satisfaction model (ACSM) method is arranged method casual related to perceived value, perceived quality, customers expectation, re-purchase likelihood, price tolerance, and customer complaints to customer satisfaction.

Consequently, all of those things are the both of backward and forward looking it too depicts in both of customer's past experience and their future in attitude toward a product or services such as in analytical and predictive value.

In addition, the American Customer Satisfaction Model (ACSM) is can be successful in adapted to various products and services (Fornell et al., 1996). Customers satisfaction can be able to measure either on a single-item scale (Bloemer et al., 1998; Cronin and Taylor, 1992) or a multi-item construct assessing

of each component in services to customer satisfaction (Agus et al., 2007; Akinboade et al., 2012; Sureshchandar et al., 2002).

Although a various scales are simples, that is not possible to assess in various dimensions or the reliability in a single item. In this study, researcher assessed in customer satisfaction based on the multi-item construct.

Customer loyalty

Loyalty has been studies broadly in the literature review in the marketing and is a crucial concept of marketing management strategies. Accordingly, the loyalty has been defined deeply by a commitment to re-purchase in a product or service consistently in the future.

Many research agreed that on the Loyal customer is *“more valuable for the business than merely satisfied customers because they create longer-term value for the company. Loyalty from customers would sustain a company creating value for employees and investors.”*

Theoretical Foundations for Customer Loyalty

Many researchers have stated that the Loyalty or loyal customer is the lifeblood's as firms regardless of its scale in the business scope. Oliver (1999) found that to keep a customer loyalty is a crucial factor for business to maximize their profits. Ailawadi and Keller (2004) agreed that to increase a profit have to keep the customer is loyal.

The researcher studies keep loyal in customer can be the result of maximizing increase profits in retailer as a customer purchase in a high percentage of

merchandise from retailers. Martenson (2007) studies on the store loyalty of customer in the local context in analyzing corporate brand image and the factors satisfaction the effect on the store loyalty. Bloemer and Oderkeken-Schroder (2002) found the relationship between store satisfaction and store loyalty, as a customer by assessing of store image will be a positive affected on store satisfaction as well as in turn lead to store loyalty.

Many authors have stated that to increase customer loyalty will be increased profits, reduced costs to acquire new customers, and decrease costs to serve customers (Reichheld and Sasser, 1990). The increasing market competition, particularly in the service industry, has caused firms become a very concerned in attracting potential customers and try to maintain long-term relationships with their current customers (Jamil and Aryaty, 2010).

According to Uncles *et al.*, to studies in customer loyalty can be classified into various categories such as;

1. Attitudinal-loyalty to the product or service whereby in the customers have a favorable to sets of stated belief towards the product or service has been purchasing.
2. Behavioral-loyalty to the product or service where the loyalty to a certain product or services is mainly defined with reference to the pattern of past purchasing.
3. Co-determinants of purchasing the product or services where loyalty is moderated by contingency in variables such as individual's current circumstances, their characteristics, and/or the purchasing situation faced.

The relationship between customer satisfaction and customer loyalty

Customer satisfaction is the starting point to create the customer loyalty. Customer loyalty it will improve the image of the firms. However, the relationship of the customer in the long-term will be affected indirectly by customer loyalty (Gandolfo, 2010;5). In the business activities, the firms try to improve the customer satisfaction in according to reduce customer dissatisfaction, attracting new customer and keep maintain an existing customer.

Customer satisfaction and customer loyalty can help the companies to achieve market and financial objectives. (e.g., Heskett et al., 1997, Oliver et al., 1997; Fornell, 1992). However many companies delivered satisfaction in anticipation of gaining their customer's loyalty (Oliver, 1999).

Some research has studies in the customer loyalty were emphasized on the effort to analyze the factors influenced on the customer satisfaction (Bolton & Bramlett, 2000; Fornell & Wernerfelt, 2002). Expectation of customer satisfaction and customer loyalty is the reaction responding to actual quality performance of product or service.

According to Hallowell (1996; 20) found that in the connection between customer satisfaction, customer loyalty and profitable are related factors to strong positive on product and service. However, there are some customers who will never be satisfied or will never be profitable of the product or service of cold storage so, the firms should be creating or build-up the quality

performance on their product or service to gaining a level of profitable. Consequently, customer satisfaction has the strong positive effect on customer loyalty in the wide range of product and service (Gustafsson, 2005; 129). Customer satisfaction and customer loyalty is an important factor for the long-terms relationship between the firms and customers.

Research conceptual framework

This conceptual framework was conducted based on the literature review to study about “Customer Satisfaction and Customer Loyalty of Cold Storage Industries in Bangkok Metropolitan

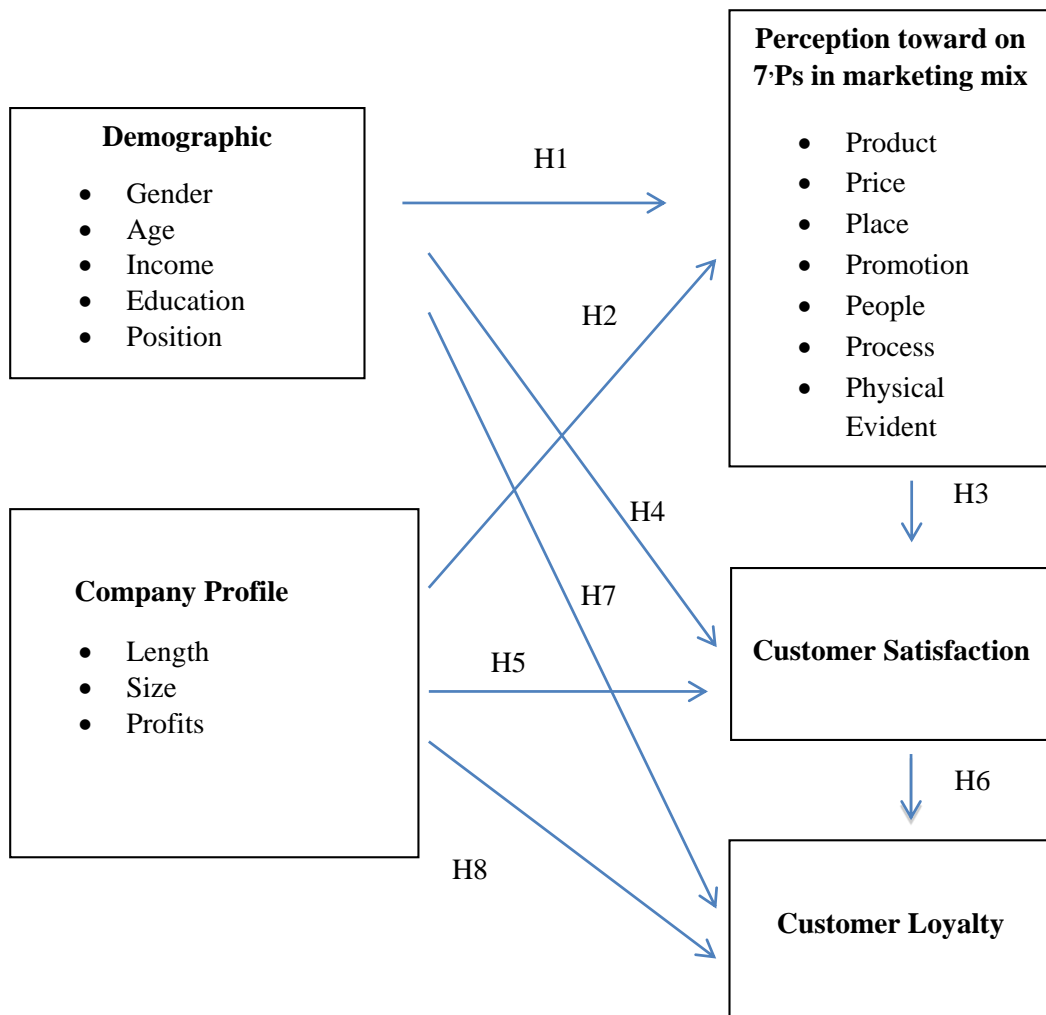


Figure 3 Conceptual framework for the research

Methodology

Research design

In order to conduct the research, the information was collected from a customer who purchases of cold storage in Bangkok metropolitan. The questionnaire of this study was adapted from the result factors analysis of critical success factors and customer expectation of cold storage industries.

Populations and sample

In this study, the population used in this research is the customers, who purchase a service of cold storage industries in Bangkok metropolitan. Researcher will adopt 400 questionnaires to respondents who are purchase of cold storage service industries in Bangkok metropolitan. Therefore, the researcher uses the formula of Cochran W.G. 1953 to find the number of population for this study.

For calculating sample size, this study will adopt on the sample size formulation from Cochran, W.G. 1953

$$n = P(1-P) Z^2 / d^2 \quad (1)$$

Which:

n is the required size for sample

P is the proportion of population that the researcher requires (0.05)

Z is the confidence of the researcher to defined the level of statistical significance

d is the proportion of error that is allowed to happen

so:

$$n = 0.5(1-0.5) (1.96)^2 / (0.05)^2$$
$$n = 384.16$$

Sampling strategy

The sampling in this study to separate in the multi-stage of research in Bangkok metropolitan, which is the researcher use random techniques to distributed to each cold room storage in each zone. Therefore, in the research study include two parts of the variable are consists of dependent variable and independent variable are as follow;

Dependent variables: customer loyalty, there are two variable to measure of customer loyalty consist of behavior and attitudinal and Independent variable: the alternative choice of company demographics such as gender, age, income and occupations and 7 P's in marketing mix consists of product/service, price, place, promotion, people, process and physical evidence. All those variables are measured by using one item require responds on the five point Likert-scale where "1" is indicated in the least favorable responds alternative (highly dissatisfied or never recommended) and "5" is indicated that in the most favorable responds alternative (very satisfied or strongly recommend etc.)

Data analysis

In this research there were three part of statistical analysis in the following;

First part is Descriptive statistical analysis. The researcher used frequency and percentage, to describe the demography characteristic that including gender, age, income, education and company profiles including position, establish, size, and profits.

Second part is agreement level analysis. The researcher used mean and standard

deviation to describe on the agreement level of the marketing mix (7P's) customer satisfaction and customer loyalty.

Third part is Hypothesis testing. The researcher used T-test to statistical analysis of gender and used one way ANOVA to find the demographic and company profiles have relationship between the perception of 7's toward marketing mix, customer satisfaction and customer loyalty. If the analysis found the different group of testing, the research will use multiple comparisons by using Fisher's Least-Significant Different (LSD). Then, the researcher used multiple regressions to find the

relationship between customer satisfaction toward marketing mix (7P's) then the used the multiple regressions to find the relationship between customer satisfaction and customer loyalty.

Data collection

The researcher used convenience-sampling method in collecting data by conveniences to distribute for respondents in Bangkok metropolitan. The researcher distributed 400 questionnaires. All questionnaires distributed to the customer of cold storage industries randomly to selecting from cold storage industries in Bangkok metropolitan as below table.

Table 3 The number of data collection of cold storage industries separate by zone

Data collection of cold storage industries in each zone		
Zone/Area	Convenience to collect Questionnaire	Percentage of respondents
Bangkok	35	9%
Pathumthani	279	70%
Samutprakarn	32	8%
Nakhornpathom	20	5%
Nonthaburi	0	0%
Samutsakhorn	34	8%
Total	400	100%

From the table researcher is convenience to collect data most in Pathumthani province at Talad Thai Market areas, due to the areas there are many of cold storage industries. The collected data was 279 questionnaires and were distributed questionnaire with 15 cold storage industries in these areas. Whereas, Nonthaburi province the researches cannot collect data in this area due to researcher cannot access and is not

relationship's connection with this areas of cold storage industries. Bangkok area was 35 questionnaires of data collected. Samutsakhorn was 34 questionnaires were collected data at Chainavee Cold Storage Co., Ltd. and Pacific Cold Storage Co., Ltd. Samutprakarn were collected data at Bangplee district was 32 of questionnaires and Nakhornpathom province was collected 20 of questionnaire.

Data analysis and results

The demographic information

The demographic information includes the number of 400 usable samples. The gender information, majority of respondents is male 222 persons (55.5%), and the rest are female 178 persons (44.5%). Ages 21-30 years old is biggest part of the sample (38.5%). The second most group of age is 31-40 years old (35.3%). The third group of age is 41-50 years old (16.8%). The respondents age 50 years and above (5.0%). The last group is the respondent who is 20 years old and under (4.5%). Income section, the majority of respondent's income is 25,000 – 50,000 baht (44.3%). Income is less than 25,000 baht (43.0%). Income 50,000 – 75,000 baht, (5.8%). Income more than 100,000 baht and income 75,000 – 100,000 are equal 2.0%. The biggest part of education is the group of bachelor degree (56.0%). Diploma level (16.3%) Lower than the diploma (15.5%). Master degree (9.3%). Master degree and above (3.0%). The percentage divided by position / department. The majority of respondent are sales and marketing position are mostly effect to purchase a service of cold storage, which has 124 or (31.0%). The others position is also biggest groups are effect to purchase a service of cold storage. The others position from this research studies is respondent who is the owner, warehouse position, and transport position, there is 122 or (30.5%). Import and Export position (23.5%). Purchase position (15.0%).

The company profiles information

The company profiles information with 400 usable samples found that the majority of business lengths in company establish the respondent coming from 6 – 10 years. There are highest percentages with 31.5%. Second most groups is 1-5 years is 19.5%. Third group is companies establish more than 20 years and above is 18.0%. The companies establish 11 – 15 years is 17.5 %. The last group is 16-20 years is 13.5 %. Then, Second factor of company profiles is size of company or employee, found that employee 31-60 is the biggest part of the samples with 35.3%. The employee less than 30 employees is 30.8%. The companies have 61-90 employee is 15.3% percent. Then, the similar respondents come from companies establish more than 120 employee and 91-110 employees are 10.3% and 8.5%. The last factor of company profiles is profits were found that the majority of companies profit more than 1,000,000 baht with 65.5%. Second group is the company profits 600,000 – 900,000 baht which has 20%. Third, the company profit 300,000-600,000 is 8% and the last group from company profits 100,000 – 300,000 baht with 6.5 %. In addition, there is no respondent come from company's profits less than 100,000 baht.

Descriptive analysis

The level of agreement from respondent on 7P on marketing mixes such as product, price, place, promotion, people, process, and physical evidence were collected data from who is purchase in services of cold storage in Bangkok

metropolitan is satisfied as agree level. Compare to each item is shows that, people is highest considered by the customer which has mean 4.09 and .571 standard deviation. Second, place mean is 4.05. Third, process means is equal to 4.04 and the standard deviation is .536. Fourth, the product is equal to 4.02 and .554 of standard deviation. Fifth, price means is 3.94 and .594 of standard deviation. Sixth, the physical evident

mean is 3.87 and the standard deviation is .664. The last is the promotion as the lower score of mean in 7'P in marketing mix which has 3.72 and .664 of standard deviation. Customer respondent's questionnaire is satisfaction in service of cold storage is equal to 4.01 and .654 of standard deviation, which is considered as agreed level and customer loyalty is 4.04.and standard deviation is .549.

Table 4 Level agreement for marketing mix, Customer satisfaction and Customer Loyalty

Description	Mean	Std. Deviation	Level of Agreement
Product	4.02	.554	Agree
Price	3.94	.594	Agree
Place	4.05	.615	Agree
Promotion	3.72	.664	Agree
People	4.09	.571	Agree
Process	4.04	.536	Agree
Physical evident	3.87	.664	Agree
Customer satisfaction	4.01	.654	Agree
Customer loyalty	4.04	.549	Agree

Summary of hypothesis testing

In this section, it is the summary of hypothesis testing as mentioned in chapter 2. The hypothesis testing is

analyzed on demographic, company profiles, 7'Ps in marketing mix such as product, price, place, promotion, people, process, and physical evidence, customer satisfaction and customer loyalty as the following table;

Table 5 Summary of all hypotheses

Description	Result
H1: Demographics has effect in perception toward on 7'Ps in Marketing mix	Partial supported
H2: Company profiles have effect in perception toward on 7'Ps in Marketing mix	Partial supported
H3: The perception toward on 7'Ps in marketing mix has effect on customer satisfaction	Partial supported
H4: Demographic has effect on customer satisfaction	Not accepted
H5: Company profile has effect on customer satisfaction	Not accepted
H6: Customer satisfaction has effect on customer loyalty	Accepted
H7: Demographic has effect on customer loyalty	Partial supported
H8: Company profile has effect on customer loyalty	Not accepted

According to above all of hypothesis will be support more information in the next part of discussion.

Conclusion, discussion and recommendation

Conclusion

The conclusion from the overall study is explained based on the research objectives as following;

Objective 1

To study the perception toward on 7 P's in marketing mix in the cold storage industry in Bangkok Metropolitan.

According to the collected data 400 respondents, the male is 222 or 55.5 percent and female is 178 or 44.5 percent. The perception toward on 7'Ps in marketing mix such as product, price, place, promotion, people, process, and physical evidence, can be summarized that all items of the marketing mix are

agreed on the level which is considered of the mean of each item. Therefore, the total as follows; the product is 4.02, the price is 3.94, the place is 4.05, promotion is 3.72, people is 4.09, the process is 4.04 and physical evidence is 3.87.

Objective 2

To study the level of customer satisfaction in the cold storage industry in Bangkok Metropolitan.

From the research study is found the results of data analysis on the level of agreement in customer satisfaction, the total mean which has 4.01 and the standard deviation is 0.648 was shown at the agree on the level.

Objective 3

To study the level of customer loyalty in the cold storage industry in Bangkok Metropolitan.

The investigated from the research study of customer loyalty cold storage industries in Bangkok metropolitan found that the total mean of customer loyalty is 4.04 and 0.549 of standard

deviation. This is considered in agree on the level.

Objective 4

To study the factors effect of customer satisfaction and customer loyalty in of cold storage industry in Bangkok Metropolitan.

Regarding the multiple regressions analyzed of 7 P's marketing mix effect on customer satisfaction was found that the R square is 30 percent and P-value is 0.000. Then, the significant level of process and physical evidence are 0.000 and 0.010. The result can be indicated that process and physical evidence are the factor effect on customer satisfaction of cold storage industry in Bangkok metropolitan. Therefore, customer satisfaction factors have the effect of customer loyalty. From the analyzed regression of customer loyalty was found that the demographic by divided by income factors effect on customer loyalty, which has P-value 0.027.

Objective 5

To study if customer satisfaction affects customer loyalty in the cold storage industry in Bangkok Metropolitan.

According to the investigated for cold storage's owned by an interview in the primary information, if customer satisfies in the factors of the marketing mix in the product, price, place, promotion, people, process, and physical evidence they will be affected on customer loyalty. Hence, if customer loyalty in which cold storage they are willing to advise and introduce to the others.

Discussion

This part will be discussing the result of the hypothesis test with the literature review or theory for more understanding in the recent situation of customer satisfaction and customer loyalty. According to the objectives of this study “customer satisfaction and customer loyalty of the cold storage industry in Bangkok metropolitan is the importance of the overall study. Therefore, from the research study in all hypotheses tested can be discussed and summarizing as following:

H 1: Demographic has effect in perception on 7'Ps in marketing mix.

From statistical analysis in hypothesis 1 by using T-test to analyze the gender and used one way ANOVA to analyze the factors has effect in the perception on 7'Ps in Marketing mix found that, some factors of 7'Ps in marketing mix has different to consider in recognize of cold storage in Bangkok metropolitan and some factors are not different to consider in recognize of cold storage in Bangkok metropolitan.

However, from statistically analysis indicated that the gender has the effect of product /service. Age has the effect of product/ service, people, and process. Income has affected product/ service and process. The position has affected promotion. Therefore, H 1 is partially supported.

According to review literature found that the persons with different demographics characteristic would have different ideas and decision in consumption (Laroche et al., 2001; Syed, 2003)

H 2: Company profiles have effect in perception on 7'Ps in marketing mix.

From the statistical analysis in hypothesis 2 by using one-way ANOVA to analyze the factors has effect in the perception on 7'Ps in Marketing mix found that some of the company profiles factors have affected on 7'Ps in marketing to recognize of cold storage in Bangkok metropolitan. The results of statistical analysis in company profiles were found that Length (establish) and Size (employee) have affected in place and physical evidence. Whereas, profit does not affected in perceptions on 7'Ps in the marketing mix. Therefore, H 2 is partially supported.

Regarding the related literature review was found that the customer with high company income including profits would have different style to consumption of the product (Schiffman and Kunak, 2003)

H 3: The perception toward on 7'Ps in marketing mix has effect on customer satisfaction.

This hypothesis is accepted with indicate the significant (P- value) is 0.000. Therefore, considered the multiple regressions on 7'Ps marketing mix with customer satisfaction, the variance can predict the constant is: customer satisfaction = $1.038 + -0.046 (\text{Product}) + 0.072 (\text{Price}) + 0.027 (\text{Place}) + -0.009 (\text{Promotion}) + 0.122 (\text{People}) + 0.428 (\text{Process}) + 0.147 (\text{Physical evident})$. According to in the review literature also the perception toward on 7'Ps in the marketing mix is affective of customer satisfaction, it could be defined the overall experience of purchasing and using a product or services (Spreng et al 1993, p.52). Consuegra et al, 2007: Bang and Phillip 2003, found that pricing has been the direct impact on customer satisfaction and the loyalty customer. The largest cold storage has to manage

more efficiently and less cost of production and service, cold storage warehousing management objective to efficiently and effectively coordinate warehouse process and activities (Harmom, 1993). According to the cold storage and warehouse process throughput activities including receiving, transfer, handling, storage, picking and expediting.

H 4: Demographic has effect on customer satisfaction.

This hypothesis using T-test to analyze the gender and used one-way ANOVA to analyze the factors have effect on customer satisfaction found that gender age, income, education and position factors have not effect on customer satisfaction metropolitan which has statistically significant level is higher than 0.05. Therefore, H 4 is not supported. Therefore, the literature review was researched by Biao Xie and Suthawan Chairapanda (2013), found that female have significant effect to purchase intention of the electronic cooking appliance more than male. Age affected on the demand of a certain product and service (Pro1996) and Laroche et al., 2001; Syed, 2003 were literature that the factors of gender, age, education, profession and income to consumed in a different kind of product and service. Whereas, research study about cold storage the demographics is not significantly.

H 5: Company profiles have effect on customer satisfaction.

This hypothesis using one-way ANOVA to analyze the factors has the effect on customer satisfaction found that length, size and profits factors have no effect on customer satisfaction metropolitan which

has statistically significant level is higher than 0.05. Therefore, H 5 is not supported. Consider the fact that length, size, and profits are not favorable by customer satisfaction accordingly. Due to the cold storage industry business is a business to business (B2B). Most of the business to business company's customer and their purchase of the product/services are more complex than business to customer (B2C). Indeed, a business to a business company is most requires on a company's purchase experience, which is called customer-experience. Williams, A. (2006) point out that the marketing in the industry is always experiential, where the main concern is to extract the quintessence of the product and apply to it intangible, physical and interactive experiences.

H 6: Customer satisfaction has effect on customer loyalty.

This hypothesis showed that the significant is 0.000, Adjust R square is equal to 31 percent with F is 182.584. The $R^2 = 31$ percent whereas the F value is 182.584. Therefore, H 5 is accepted. Hence customer satisfaction and customer loyalty have relationship accordingly. However, from literature review found that customer satisfaction has the strong positive effect on customer loyalty in the wide range of product and service (Gustafsson, 2005; 129). The researcher agrees that customer satisfaction and customer loyalty is an important factor for a long-term relationship between the firms and customers.

H 7: Demographic has effect on customer loyalty.

From statistical analysis in hypothesis 7 by using T-test to analyze the gender and

used one way ANOVA to analyze the factors has effect on customer loyalty found that some factors of demographics have effect on customer loyalty, chapter 4 in the table 4.3.21 indicated that customer has different of income has loyalty of cold storage in Bangkok metropolitan with significant level is 0.04. The researcher also found that the group of income less than 25,000 baht has customer loyalty has different from the group income 50,000 baht – 75,000 baht. And the table 4.3.22 indicated that customer has different of education has the loyalty of cold storage in Bangkok metropolitan with significant level is 0.03. Whereas, gender, age, and position are not differenced on the factors on customer loyalty. Hence, H 1 is partially supported.

According to, Laroche et al., 2001; Syed, 2003 were literature that the factors of gender, age, education, profession and income to consumed in a different kind of product and service. Therefore, a loyalty is the degree to which a customer exhibits repeats purchasing behaviors from a service provider, processes a positive attitude disposition toward the provider, and consider only this provider when a need for this service arises (Gremler and Brown, 1996).

H 8: Company profiles have effect on customer loyalty.

This hypothesis using one way ANOVA to analyze the factors has the effect on customer loyalty found that length, size, and profits factors have no effect on customer satisfaction metropolitan which has statistically significant level is higher than 0.05. Therefore, H 8 is not supported.

Generally, from the research study in review literature most indicated that customer loyalty is the behaviors and attitude. However, Researcher recommended that since the loyalty in business to a business company is related to the long-term relationship together which is not much necessary to related to company length, size and profits. Furthermore, the benefit of relationship is the costs of serving loyal customers are lower and less sensitive towards price change. This is recommended based on experience. According to, attitude loyalty represents a higher-order, long-term commitment of a customer to the organization that cannot be inferred by observing customer repeat purchase only (Shankar, Smith and Rangaswamy, 2003).

Recommendations

Recommendation in this research

This research can be known about of customer satisfaction and customer loyalty of cold storage industries in Bangkok metropolitan. It will be useful for the organizations, entrepreneurs and who is relevant in the business field of cold storage industry to be the guideline in the development plan to improve services to consistent with customer requirements and highest satisfaction. The researcher is taking research result of the lower, highest average and significant level of each factor effect on customer satisfaction and customer loyalty to recommend and suggest the following;

1. In demographics factor found that age and income are affected on perception toward on 7'Ps in marketing mix which is product/service, process, and people.

However, the entrepreneurs need to maintain product/ service, process and people to be better to offer a customer. For cold storage industry, gender is not affected but for some business gender affected in their product such as a research of Biao Xie and Suthawan Chirapanda, (2013), found that females have significant effect to the purchase intention of the electronic cooking appliance more than males.

2. In company profiles, the factor indicated that length and size affect on perception toward on 7'Ps in the marketing mix. Due to it would be the longest relationship and familiar working together. Whereas, company profits are not affected. In order to stay competitive the current situation. The company should not only provide the quality of service, it is also necessary to know how to deal with a customer. It should be realized on building and maintain a long-term relationship between company and others related parties which consistent the research study is the goal of relationship marketing is to establish a permanent relationship with customers, maintaining and developing them in order to increase overall market share (Stone et al., 2000).

3. In marketing, mix factors are product/ service, price, place, promotion, people, process and physical evidence. researcher consider in the various factor in customer highest agreement of each item as following;

Product/Service: customer strong agree is the company has a good safety for cold storage, the company offer good quality of product/service and the company has good hygiene practices. Such a safety and quality of cold storage services is very important to keep customer

satisfaction and loyalty. Whereas, the company provides a variety of service to support customer requirement and the company focuses on customer requirement is lower agree by the customer. In order to fulfill customer requirement, the entrepreneur needs to support a variety and size of cold storage rental services, for example, a company has both of rental service such seafood cold storage and fresh fruit and vegetables cold storage.

Price: the highest agreement is the company offer in the reasonable price and the company offers satisfactory value of customer paid. Whereas, the company has a consistent price policy is lower agree by the customer. The research study, some cold storage industry has not consistent price policy. Due to some cold storage offer, a variety of product to the customer can be stored in cold storage. It, not easy tasks to set the standard price. Thus, cold storage's entrepreneurs need to find the way in standard price setting to offer in each customer. Pricing is part of customers cost that they meet and to obtain wanted of their benefits (Zeithaml, 1998). Form research study of cold storage in Bangkok metropolitan almost offers the reasonable price to the customer. With the high market competition of cold storage, the cold storage's entrepreneur needs to cooperate in pricing policy to avoid arguing customers. Because the price is affected to the customer. The studied were recommended by (Consuegra et al., 2007; Bang and Phillip. 2013) is pricing has been the direct impact on customers satisfaction and the loyalty of customers.

Place: the company has convenient transportation, and the company has is

crucial for a customer to select the location of cold storage to store the product. If they select the right location it will help to minimize the cost of transportation. (Friars et al. , 1985; Howcroft, 1993; Daniel and Storey, 1997; Thornton and White, 2001) research recommended that the place is where customers buy a product/service in distributing appropriate and convenient for the customer that available in the right place, at the right time and in the right quantity.

Promotion: the highest agreement is the company offers more benefit for the member or existing customer, and the company offers more discount and meet your requirement. Therefore, promotional activities are like to build the relationship with the customer to get satisfied and retention in product/ services. However, creating promotion offer to customers must concern about the true cost of cold storage management. Some cases of product damage in storage, the firms have to accept the cost will be occurring to compensate to the customer.

People: from the questionnaire survey of cold storage services in Bangkok metropolitan found that the respondent high agrees with staff has friendly with the customer. Whereas, lower agree is staff has knowledge and skill. Hence, the organizations need to create training activity for the employee to get more knowledge and skills in customer services. As per research studied suggested that the way services are delivered by the people can be an important source of differentiation as well as competitive advantage (Lovelock et al., 2007; Raj et al., 2014).

Process: according to cold storage and warehouse processes throughput activities including receiving, transfer, handling, storage, picking and expediting. Refer to respondent's questionnaire suggested with high agree factors of cold storage services in Bangkok metropolitan are staff give careful of goods in storage, the speed of service, and staff gives careful of goods in storage. Therefore, if the firms maintain a good process of services management. It will increase customer and customer retention. For the others businesses field in services like banking. In banking services, customer satisfaction mainly depends on the process of delivery (Shamah, 2013). So, cold storage services industry is also the same.

Physical evident: according to the respondent's questionnaire most agree is the company has a good facilities environment. The lower agreement is the company in an appealing cold storage atmosphere. As we known, physical evidence is often intangible. So, the organization and entrepreneurs need to realize about atmosphere and environment is important and would be customer impression and customer retention. As per research recommended that the physical evidence also importance for cold storage because it conveys to the customer in the external image of service package (Miles et al., 2012). However, the recommended from

this research study by customer use a service of cold storage in Bangkok metropolitan such as inadequate of light surrounding the company, no guest room for a customer. So, organization and entrepreneurs need to develop and offer to a customer when they come to use cold storage services. Physical surroundings and others experiential elements encounter by customers at service delivery sites (Lovelock et al., 2007: Klaus and Maklan, 2012).

Recommendation for the future research

1. This research used questionnaire instrument to collect data only. For the future research, the researcher recommends further investigation to the qualitative method, it means that to collect data by interview from the customer directly, which to get an accurate data.
2. For the future research, researchers should collect the sampling for others region and others province.
3. The study only focuses on 7Ps in marketing mix affected on customer satisfaction and customer loyalty. There are others variable might be affected by customer satisfaction and customer loyalty. Therefore, the future researchers may investigate on more variable such as SEQUAL analysis to customer expectation and satisfaction.

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