

**CONFERENCE PROCEEDINGS**  
**BUSINESS ADMINISTRATION: MARKETING**

## A Study of Factors Affecting Rabbit Card Usage in Bangkok, Thailand

Phonsaran Summaviriya<sup>1\*</sup> and Sirion Chaipoopirutana<sup>2</sup>

<sup>1,2</sup>Graduate School of Business, Assumption University of Thailand  
Corresponding author: Asst. Prof. Dr. Sirion Chaipoopirutana  
E-mail: Phonsaran92@yahoo.com

### Abstract

The purpose of this study was to identify influencing factors toward Rabbit card usage. In this research, the dependent variable is Rabbit card usage, while independent variables consisted of compulsive purchase tendency, perceived usefulness, perceived ease of use, perceived credibility, the amount of information on Rabbit card, and demographic factors. The researchers developed five hypotheses for this study. The data were collected through a questionnaire survey of 400 respondents in two selected BTS stations in Bangkok, namely Siam and Asok. The sampling procedure used judgment sampling, quota sampling, and convenience sampling. All of the data were analyzed by Multiple Linear Regression, Independent t-test, and Analysis of Variance (ANOVA). The result showed that perceived usefulness and the amount of information on Rabbit card had a significantly influence on Rabbit card usage. For demographic factors, age levels, education levels, and income levels had a significantly influence on Rabbit card usage.

**Keywords:** Rabbit card, BTS, Skytrain, Transportation, Bangkok

### Introduction

Bangkok Mass Transit System (BTS) skytrain is one of the main transportation channels in Bangkok, Thailand. The skytrain system provides reliable service with affordable price. Most of BTS locations have crowds of people to lining up to use BTS transportation. Rabbit card is an e-money system in form of card which can be applied for BTS transportation and other associated stores. Rabbit card helps to facilitate payment transactions. It is very important for those associated companies to understand the impulses and tendencies leading customers to increase the usage of Rabbit card. In this study, the researchers is going to discuss about the some of the variables encouraging customers to implement the usage of Rabbit card. Amin (2007) conducted a research for mobile credit card usage intention using perceived usefulness, perceived ease of use, perceived credibility, and the amount of information as the independent variables to determine usage intention. Mobile credit card is similar to Rabbit card as they are both used to facilitate payment transactions. Consumers make compulsive purchase to relieve stress or anxiety and feel guilty after purchasing unnecessary items and suffer credit debt as consequences (Warren, 1992). Compulsive buying behavior significantly increases credit card usage, which can also be applied to Rabbit card. Perceived usefulness is the factor that helps to determine the usage of innovative technology regarding the efficiency of the product (Davis, 1989). Perceived ease of use can be applied as an antecedent of Rabbit card usage as customers tend to consume the product if they found it is easy to use (Davis, 1989). Perceived credibility helps to ensure that customers can trust on the product that it

would protect their personal information (Goldsmith et al., 2000). The amount of information on Rabbit card encourages customers to be interested in the product; if they have sufficient information (Pikkarainen et al., 2004; Sathye, 1999; Howard and Moore, 1982). Other demographic factors included gender, age levels, education levels, and income levels resulted in different views toward Rabbit card usage.

### Materials and Methods

#### Literature Review

**Compulsive Purchase tendency:** Warren (1992) defined compulsive buying as an abnormal shopping and spending behavior of the distressed consumer who has an overpowering, uncontrollable, chronic and repetitive urge to shop and spend as an attempt to curing negative feelings of stress and anxiety. Brougham et al. (2011) stated that compulsive buying refers to the inability to control purchasing behavior. Young consumers are more likely to make compulsive buying than older customers (Dittmar, 2005).

**Perceived Usefulness:** Davis (1989) stated that perceived usefulness refers to the degree of personal belief that using a specified system would increase their job performance. Luarn and Lin (2005) stated that perceived usefulness positively influences mobile banking and usage intention. Perceived usefulness and perceived ease of use are the two major predictors of technology acceptance (Davis, 1989). Cheong and Park (2005) and Chiu et al. (2005) stated that perceived usefulness has a significant effect on usage intention.

**Perceived Ease of Use:** perceived ease of use is the determination which users can spend less effort to

handle that technology product (Davis, 1989). According to a previous extensive report by Guriting and Ndubisi (2006), Ramayah et al. (2003), and Davis (1989), there is a significant effect between perceived ease of use and usage intention. Guriting and Ndubisi (2006) stated that perceived ease of use positively influences behavioral intention to use Malaysian online banking. In addition, bank customers are more likely to implement online banking when the usage process is easy (Guriting and Ndubisi, 2006).

**Perceived Credibility:** corporate credibility indicates the degree to which consumers are confident that a company is able to deliver the products and services the customer desires (Keller, 1998). It is composed of perceived trustworthiness and perceived expertise of the firm (Goldsmith et al., 2000). Credibility or trust in the honesty of a partner involves the firm's belief that the partner is able to perform the job reliably, effectively, and keep its promises. Credibility emphasizes the anticipation that service personal can be counted on (Sohal and Lu, 1995).

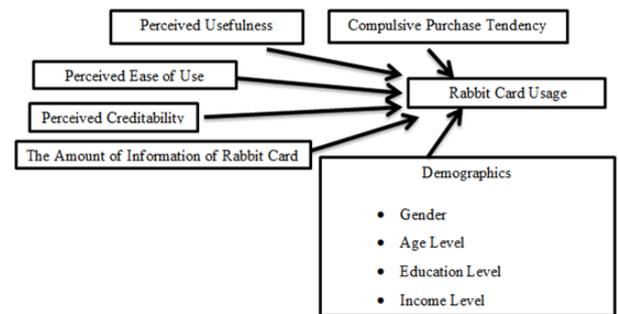
**The Amount of Information on Rabbit Card:** the amount of information refers to the level of awareness of a particular product based on the amount of information customers received (Pikkarainen et al., 2004; Sathye, 1999; Howard and Moore, 1982). There is a higher possibility that customers will implement the system if they have sufficient information on mobile credit card (Amin, 2007). Pikkarainen et al. (2004) stated that information acquired by a bank customer positively affects online banking acceptance.

**Rabbit Card Usage:** credit cards are used to fulfill certain lifestyle preferences. They generate opportunities for customers to make certain purchases that they may be unable to afford (Brenthal et al., 2005). Credit cards can provide flexibility and security, but if the usage isn't controlled in a proper way, it can also be a reason for serious financial risk (Modesto et al., 2014). Psychological research about the credit cards usage as a trigger to spending behavior based on the experimental study of Feinberg (1986) showed that the credit card stimuli can increase the probability and the speed of spending.

**Demographic Factors:** gender refers to the status of being male or female. Age levels refer to a group of a population within a specified age range or about the same age (American Heritage Dictionary of the English Language, 2011). Well-experienced users have less chance to search for new information (Evanschitzky and Wunderlich, 2006). Education levels can be explained by a ladder of education, ranging from elementary to complicated learning experiences, covering all fields and programs (New York Handbook of Household Surveys, 1984). Prince-Gibson and Schwartz (1998) stated that educational levels had a significantly negative relationship on traditional values, power and

conformity. Income levels refer to a group of people in a given population that have incomes within a specified range (Collins English Dictionary, 1991). Schwartz and Huismans (1995) stated that lower-income customers pay more attention to tradition, compliance and stimulation.

Figure 1: Conceptual Framework



Note: compulsive purchase tendency = COM, perceived usefulness = PU, perceived ease of use = PE, perceived credibility = PC, the amount of information on Rabbit card = AMNT

**Hypotheses**

H1: Compulsive purchase tendency, perceived usefulness, perceived ease of use, perceived credibility, and the amount of information on Rabbit card influence Rabbit card usage.

H2: There is a difference in Rabbit card usage based on gender.

H3: There is a difference in Rabbit card usage when segmented by age levels.

H4: There is a difference in Rabbit card usage based on education levels.

H5: There is a difference in Rabbit card usage when segmented by income levels.

**Research Methodology**

The research implemented descriptive research, the research designed to explain the characteristics of the population or a phenomenon (Zikmund, 2004). Descriptive research is designed to answer what, who, where, when, and how questions, regarding course of action. The technique gathers information through samples.

The researchers distributed questionnaires as a survey method to collect data from respondents. The target population are customers who have experienced using Rabbit card in Bangkok, Thailand from both genders, with the age of 18 and above. The sample size is 400 respondents from two select BTS stations. The Dependent variable is Rabbit card usage. Independent variables included compulsive purchase tendency, perceived usefulness, perceived ease of use, perceived credibility, the amount of information on Rabbit card, and demographic factors. The researchers tested the

hypotheses using Multiple Linear Regression, independent t-test, and Analysis of Variance (ANOVA).

**Data Collection**

In this study the researchers collected our primary data through questionnaires from Rabbit card customers from gender with the age of 18 years and above in Bangkok, Thailand. The researchers selected two BTS stations, Siam and Asok, which ranked first and second highest user rate per day. The survey conducted during 2-16 October 2015. The quota sample size is 200 respondents per station. The questionnaire paper was distributed to the respondents at the entrance of Siam and Asok station based on the convenience. The respondents were required to answer screening question to identify them as a Rabbit card user and each respondent completed the questionnaire form in about 5 minutes.

The researchers have collected secondary data from many sources including journals, website, and two main articles: “An analysis of mobile credit card usage intentions” and “The influence of image consciousness’ materialism and compulsive spending on credit card usage intentions among youth” were used to develop several parts of this research.

**Results and Discussion**

Table 1: Summary of hypotheses testing

<b>Null Hypothesis</b>	<b>Level of Significance</b>	<b>Results</b>
<b>H1</b>		
COM	0.542	Failed to reject Ho
PU	0.000	Reject Ho
PE	0.073	Failed to reject Ho
PC	0.113	Failed to reject Ho
AMNT	0.000	Reject Ho
<b>H2</b>	0.326	Failed to reject Ho
<b>H3</b>	0.014	Reject Ho
<b>H4</b>	0.030	Reject Ho
<b>H5</b>	0.028	Reject Ho

**Findings**

The researchers used Cronbach’s Coefficient Alpha to test with the questionnaire which contains 39 questions. The objective is to test the reliability of each variable in the conceptual framework. The outcomes show that all variables were higher than the acceptable value of 0.6. Therefore, all variables are consistent and reliable to use as a research instrument for this study. The majority of all respondents were females (52.5% or 210 respondents), aged between 21-30 years old (68.5% or 274 respondents), with a Bachelor Degree (73.9% or 317 respondents), and have monthly income of more than 25,000 baht (31.3% or 125 respondents), respectively.

In hypothesis 1, Table 2 indicated that only perceived usefulness and the amount of information on

Rabbit card influenced Rabbit card usage due to the significance level of 0.000 which is less than 0.05. However, compulsive purchase tendency, perceived ease of use, and perceived credibility did not influence Rabbit card usage as all of the significance levels are above 0.05. Hypothesis 2 failed to reject, resulting in no statistically significant difference in Rabbit card usage between males and females. Hypothesis 3 was rejected, indicating that there is a statistically significant difference in Rabbit card usage when segmented by age levels. Hypothesis 4 was rejected, indicating that there is a statistically significant difference in Rabbit card usage when segmented by education levels. Finally, Hypothesis 5 was rejected, indicating that there is a statistically significant difference in Rabbit card usage when segmented by income levels.

**Conclusions**

This study collected data through two BTS stations in Bangkok, Thailand, which are Siam station and Asok station. The researcher selected Rabbit card customers as the respondents of the study. Convenient sampling, judgement sampling, and quota sampling were implemented to collect data from two selected BTS stations by distributing questionnaires. For demographic factors, the majority of each factor includes females, aged between 21-30 years, of Thai nationality, with a Bachelor’s degree, and earning more than 25,000 baht income per month, respectively. In terms of hypothesis testing, the researcher used multiple regression line, independent t-test, and Analysis of Variance (ANOVA) to analyze all 5 hypotheses.

Hypothesis 1 indicated that only perceived usefulness and the amount of information on Rabbit card influence Rabbit card usage due to the significant level of 0.000 which is less than 0.05. However, compulsive purchase tendency, perceived ease of use, and perceived credibility did not influence Rabbit card usage as all of the significant levels are above 0.05. Hypothesis 2 was failed to rejected, resulting in no statistically significant difference in Rabbit card usage between males and females. Hypothesis 3 was rejected, indicating that there is a statistically significant difference in Rabbit card usage when segmented by age levels. Hypothesis 4 was rejected, indicating that there is a statistically significant difference in Rabbit card usage when segmented by education levels. Finally, Hypothesis 5 was rejected, indicating that there is a statistically significant difference in Rabbit card usage when segmented by income levels.

**Recommendations**

Perceived usefulness influenced Rabbit card usage. The Rabbit card provider should find a way to expand to be applicable to other forms of public transportation, especially, MRT. If it successfully expands to MRT service, customers would bear less transportation cost and keep only the Rabbit card in their pocket instead of both the Rabbit card and the MRT card to pay separately. Another suggestion is to increase the

applicable BTS stations for Rabbit card and adjust the fare to be fair according to the distance. A longer distance requires more fare. Customers have to pay constant 15 baht more from stored value for the route from Bang Chak station to Bearing station, which is not fair if they travel only a few more stations from the original 25 stations.

The amount of information on Rabbit card influenced Rabbit card usage. The Rabbit card provider should inform customers through mobile applications. Presently, AIS, telephone network provider, already introduced a sim card called AIS mPAY Rabbit that enables smartphones to pay for BTS and associated retail outlets. The application regarding Rabbit card should be up-to-date, easy to use and available for all kinds of smartphones.

For the demographic factors, factors including age levels, education levels, and income levels influenced Rabbit card usage. For age levels, the Rabbit card provider should advertise Rabbit to each age group. For the younger age group, they should cooperate with the universities or high schools in Bangkok to advertise the Rabbit card through schools' websites to inform special prices for students. For the middle aged, they should cooperate with companies in Bangkok to offer special promotions for working people under associated companies. For education levels, the Rabbit card provider should offer a premium design rabbit card with special functions such as discounts for tour packages or online checking or top-up functions. Higher educated customers tend to be more concerned about their financial plan. For Income levels, the Rabbit card provider should offer application fee discounts to attract new users who may have a limited budget income per month.

#### **Further Study**

In this study, the researchers selected a few variables. There are several variables that should be added in the conceptual framework for further study. Moreover, further study should aim to use different statistical treatment to see the other aspects of the results. In addition, further study should collect data from other BTS stations to cover a wider area in Bangkok, Thailand to represents population more accurately. Lastly, future research may collect data from different point of time throughout the year to see different opinions and get more varied results.

#### **Acknowledgments**

I am grateful to my kind supervisor, Asst. Prof. Dr. Sirion Chaipoopirutana who has been painstakingly patient to steadfastly guide and support me. Thank you for the encouragement from my family and classmates. Most importantly, I would like to express my gratitude to all my respondents who spent their valuable time answering the research questions.

#### **References**

- Amin, H. (2007). An analysis of mobile credit card usage intentions. *Information Management & Computer Security*, 15(4), 260-269.
- Bayley, G. and Nancarrow, C. (1998). Impulse purchasing: a qualitative exploration of the phenomenon. *Qualitative Market Research: An International Journal*, 1(2), 99 – 114
- Brenthal, M.J., Crockett, D. and Rose, R.L. (2005). Credit card as lifestyle facilitators. *Journal of Consumer Research*, 32, 130-45.
- Brougham, R.R., Jacobs-Lawson, J.M., Hershey, D.A. and Trujillo, H.M. (2011). Who pays your debt? An important question for understanding compulsive buying among American college students. *International Journal of Consumer Studies*, 35(1), 79-85.
- Chan, M. (1997). Some theoretical propositions pertaining to the context of trust. *The International Journal of Organizational Analysis*, 5(3), 227 - 248
- Cheong, J.H. and Park, M.C. (2005). Mobile internet acceptance in Korea. *Internet Research*, 15(2), 125-40.
- Chiu, Y.B., Lin, C.P. and Tang, L.L. (2005). Gender differs: assessing a model of online purchase intentions in e-tail service. *International Journal of Service Industry Management*, 16(5), 416-35.
- Davis, F.D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-40.
- Dittmar, H. (2005). Compulsive buying – a growing concern? An examination of gender, age, and endorsement of materialistic values as predictors. *British Journal of Psychology*, 96(4), 467-491.
- Evanschitzky, H. and Wunderlich, M. (2006). An examination of moderator effects in the fourstage loyalty model. *Journal of Service Research*, 8(4), 330-345.
- Feinberg, R.A. (1986). Credit card as spending facilitating stimuli: a conditioning interpretation. *Journal of Consumer Research*, 13(3), 348-356.
- Goldsmith, A.H., Veum, J.R. and Darity W. (2000). Motivation and labor market outcomes. *Research in Labor Economics*, 19, 109 - 146
- Guriting, P. and Ndubisi, N.O. (2006). Borneo online banking: evaluating customer perceptions and behavioral intention. *Management Research News*, 29(1/2), 6-15.
- Howard, J. and Moore, W. (1982). Changes in consumer behavior over the product life cycle. *Readings in the Management of Innovation*, 128.
- Howcroft, B., Hamilton, R. and Hewer, P. (2002). Consumer attitude and the usage and adoption

- of home-based banking in the United Kingdom. *International Journal of Bank Marketing*, 20(3), 111-21.
- Joyce, K.H., Nga Lisa, H.L. and Sellappan, Y. (2011). The influence of image consciousness, materialism and compulsive spending on credit card usage intentions among youth. *Young Consumers*, 12(3), 243-253.
- Keller, K.L. (1998). *Strategic Brand Management*. Prentice Hall, Upper Saddle River, NJ, 1.
- Khare, A., Khare, A. and Singh, S. (2012). Factors affecting credit card use in India. *Asia Pacific Journal of Marketing and Logistics*, 24(2), 236–256.
- Luarn, P. and Lin, H.H. (2005). Toward an understanding of the behavioral intention to use mobile banking. *Computers in Human Behavior*, 21(6), 873-91.
- Modesto, T., Marcelo, V., Falciano, A., Villas, R. and Perito, B. (2014). Effects of credit card usage on young Brazilians' compulsive buying". *Young Consumers*, 15(2), 111 - 124
- Ndubisi, N.O. (2006). Effect of gender on customer loyalty: a relationship marketing approach. *Marketing Intelligence & Planning*, 24(1), 48 - 61
- Pikkarainen, T., Pikkarainen, K., Karjaluoto, H. and Pahnla, S. (2004). Consumer acceptance of online banking: an extension of the technology acceptance model. *Internet Research*, 14(3), 224-35.
- Polatoglu, V.N. and Ekin, S. (2001). An empirical investigation of the Turkish consumers' acceptance of Internet banking services". *International Journal of Bank Marketing*, 19(4), 156-65.
- Prince-Gibson, E. and Schwartz, S.H. (1998). Value priorities and gender. *Social Psychology Quarterly*, 61(1), 49-67.
- Ramayah, T., Jantan, M., Noor, M.N.M. and Ling, K.P. (2003). Receptiveness internet banking by Malaysian consumers. *Asian Academy of Management Journal*, 8(2), 1-29.
- Sathye, M. (1999). Adoption of internet banking by Australian consumers: an empirical investigation. *International Journal of Bank Marketing*, 17(7), 324-34.
- Schwartz, S.H. and Huismans, S. (1995). Value priorities and religiosity in four western religions. *Social Psychology Quarterly*, 58(2), 88-107.
- Shoham A. and Brenčić, M.M. (2003). Compulsive buying behavior. *Journal of Consumer Marketing*, 20(2), 127 - 138
- Sohal, A. and Lu, E. (1995). The quest for quality at Safeway Australia. *Benchmarking for Quality Management & Technology*, 2(2), 37 - 54
- Steenkamp, J. (2001). The role of national culture in international marketing research. *International Marketing Review*, 18(1), 30 -44
- Venkatesh, V. and Morris, M.G. (2000). Why don't men ever stop to ask for directions: gender, social influence and their role in technology acceptance and usage behavior. *MIS Quarterly*, 24(1), 115-39.
- Wang, Y.S., Wang, Y.M., Lin, H.H. and Tang, T.I. (2003). Determinants of user acceptance of internet banking: an empirical study. *International Journal of Service Industry Management*, 14(5), 501-19.
- Warren, E. (1992). The Interface Between R&D, Marketing, and Marketing Research in New Product-Development. *Journal of Product & Brand Management*, 1, 15 - 25
- Wickramasinghe, V. and Kumara, S. (2009). Differential effects of competency due to BPO and KPO industry differences in ITES sector in Sri Lanka. *Career Development International*, 14(2), 169 -185
- Woodruffe, H.R. (1997). Compensatory consumption: why women go shopping when they're feed up and other stories. *Marketing Intelligence & Planning*, 15(7), 325-34.
- Zikmund, G. W. (2004). *Business Research method* (7th edition). Mason OH: Dryden Inc.

## A Study of Relationship between Money Attitudes, Materialism, Credit Card Use, Perceived Social Image and Compulsive Buying Apparel at Shopping mall in Phatumthani

Kulwadee Kaewprapan<sup>1</sup> and Sirion Chaipoopirutana<sup>2</sup>

<sup>1,2</sup>Graduate School of Business, Assumption University  
Email: kulwadee.kaewprapan@gmail.com, sirionc@gmail.com

### Abstract

Compulsive buying, which can be defined as an irresistible urge prompted by negative affectivity and resulting in excessive and time-consuming retail activity, is generally perceived as having a negative influence on customer purchasing behaviors. Factors that influence compulsive buying include money attitude, credit card use, materialism and perceived social image. This study aims to study the relationship between money attitude, materialism, credit card use, perceived social image and the compulsive buying of apparels at a shopping mall located at Future Park Rangsit in Pathumthani. The data was collected through an online questionnaire that surveyed 300 respondents via software (Surveycan website), people who have bought apparels at Future Park Rangsit shopping mall. The sampling procedure used non-probability and the convenience sampling technique. The data were analyzed by Pearson Correlation and descriptive statistics were used to provide the mean and demographic percentages. In addition, inferential statistics were used to test the relationship among the variables. The research shows that attitudes toward money have no significant relationship with compulsive buying. However, three independent variables, materialism, credit card use, and perceived social image, have a positive relationship with compulsive buying. Consumers see brands as a means of expressing self-concepts. Since credit card use directly affects compulsive buying, the mall should put even more emphasis on strategies such as card promotions, cash back, point, reward, or 0% installment and discount when using credit cards. Finally, the mall should promote products and services that can enhance the social status of customers.

**Keywords:** Compulsive buying, credit card use, materialism, perceived social image, money attitudes

### Introduction

Nowadays, there are many researches and studies about consumer behavior and factor that effect to customer buying products. Many researchers found that buying behavior of customer sometimes create negative emotion according customer does not provide compete idea of consumption pattern (Ridgway, 2008 & Faber, 1989). Compulsive buying is often reported as negative influence to customer buying which defines as experienced of customer as an irresistible-uncontrollable urge, resulting in excessive and time-consuming retail activity prompted by negative affectivity (Kellest, 2009). Moreover, compulsive buying is investigated for analyzing the different personality characteristics of customer and it can indicate as customer buying behavior for their individual living (Neuner, 2005).

Compulsive buying of apparel is often observed or analyzing the market and consumer behavior and also corresponds with product strategy. In this study, the researchers focus to study on compulsive buying of Thai customer according it is a significant factor for marketer to analyze and understand on Thai apparel market. As today, Thai consumers are sophisticated and demanding

on apparel products. They know what they want to buy and they are willing to pay for the products. Thai consumers are demanding more apparel choices and expecting to see new merchandise every time they walk into a store or shopping mall. For better understand, the researchers also focus on factor that have effect on the compulsive buying on apparel product such as money attitude, credit card use, materialism and perceived social image.

The survey subjects focus on Future Park Rangsit, where is shopping mall area, It is one of popular shopping mall and the top twenty of shopping mall in Thailand according to their location and providing more on variety of apparel products. In addition, customers of Future Park Rangsit are estimated as variety levels at 20 per cent high-end consumers, 30 per cent students, and 50 per cent mid-to-low-end customers. The branch has investigated as average of 20,000 daily customers with average spending 2,000-3,000 baht per day ([www.nationmultimedia.com](http://www.nationmultimedia.com)). It would be interesting to examine if consumers sharing their compulsive buying behavior of variety levels of customer. This study also explores the influence of money attitude, credit card use, materialism and perceived social image factors on compulsive buying. This study will make the

researchers better understanding and predict situations that what customer likely to do compulsive buying apparel products.

### **Theory**

#### *Compulsive buying*

Compulsive buying is a dysfunctional consumer behavior that can lead to adverse consequences as psychological distress and serious effects on individual's lives, such as substantial financial problems (Dittmar, 2005). Compulsive buying was also described as satisfaction of the buyers through the buying process itself without expectation of utility or service from a purchased commodity (Krueger, 1988). Compulsive buying is influenced by gender and age. A relationship between gender and compulsive buying has been found. Females have been considered to be more involved in compulsive buying than males. A negative relationship between age and compulsive buying has also been found. Young consumers exhibit a higher level of compulsive buying than the older population

#### *Materialism*

Materialism is defined as the importance attributed to the ownership and acquisition of material goods in achieving major life goals (Richins 1992). Three conceptual dimensions of material values were, the centrality of possessions in a person's life, the use of possessions to judge the success of others and self and the belief that possessions and their acquisition lead to happiness and life satisfaction. The important life goal of consumers high in materialism is the acquisition of goods or properties that show their success. Those properties are necessary to their satisfaction. A negative relation between materialism and satisfaction with life, and self-esteem was demonstrated. Braun and Wicklund (1989) had considered that materialism and the pursuit of possessions is the result of dissatisfaction with one's self and one's life.

#### *Money Attitude*

Money Attitude is defined as individual's emotions towards money. Individuals' not only associate values, utilities, and wealth with money which is an important element of people's daily life but also motivates people and influences their purchase decisions (Belk 1990). Money Attitude has been found that it is the most powerful forces that influence individuals and society is consumer culture (Roberts, 1999). According to consumer culture was described as culture where the majority of individuals' desires are goods and services that are valued for non-utilitarian reasons such as social status (power), envy aggravation and pleasure seeking. Money has been regarded as the common language of consumer culture (Roberts, 2001).

#### *Credit card use*

Credit card use defines as consumer behavior of buying by using credit cards to complement certain life style preferences and convenience. Possession of credit

card is directly associated with spending. Credit cards can generate spending capacity with having extra cash flow (Feinberg 1986). It is generally agreed that possession of a credit card is directly associated with spending. Credit card can create spending capacity which real money does not which is objected for cash flow. Credit cards can provide financial security and flexibility, but their uncontrolled use exposes serious financial risk of user. An important stream of psychological research dealing with credit cards as a trigger of spending behavior has its basis in the experimental study of Feinberg (1986).

#### *Perceived social image*

Perceived social-image is described as a person's perceptions about being superior and rich in a social setting. It indicates standards of living perceived by the people (Jalees 2007). People who are highly conscious about their perceived social image consciously, they tend to be careful in conveying the impression of themselves in front of others as a social object (Carver, 1981). This continuous self-consciousness drives them to purchase the symbolic goods and services that may enhance their social image (d'Astous 1990).

#### *Review between perceived social image and compulsive of buying*

Foon (2011) proposed a theory of consumed goods of people related with the perceived social image with compulsive of buying. Perceived social status influenced consumers in Kuantan to spend for the perfume product. This means that the lower the level of perceived social status, the lower the purchasing behavior of respondents, and vice versa. It is found that peoples who high perceived social status tend to spend more money to buy perfume. So that for this market the marketer should focus on high class society. In addition, shopping is changing its nature and focus shifting from the purchase to satisfy the physical needs of oneself towards the use of consumer goods to gaining social status.

#### *Review between materialism and compulsive of buying*

Quoquab (2013) studied compulsive buying behaviour among young Malaysian consumers. It shows that perceived social image and materialism also significantly and positively affect compulsive buying. Young consumers consider compulsive buying as a symbol of self-completion strategy. It is a trend to have excessive purchases from actual-self and desired-self. This also finds that materialism partially mediates the relationship between perceived social image and compulsive buying the self-completion theory. The present study examines the relation between perceived social image and materialism on young consumers' compulsive buying behavior. Its significance in terms of the relationship between 'perceived social image' and 'materialism' has been shown. Materialism plays mediating role between 'perceived social image' and 'compulsive buying'.

Xu (2008) study the influence of public self-consciousness and materialism on young consumers' compulsive buying of student in Mid-Western University. It is found that materialism have a strong, significant and direct influence on young consumers' compulsive buying tendency. Public self-consciousness was strongly related to young consumers' compulsive buying tendency. However the influence of public self-consciousness on compulsive buying tendency was mediated by materialism.

*Review between money attitude to compulsive buying*

Hanley (1992) showed that the Power-Prestige dimension of money attitudes is significantly associated with compulsive buying This implies that consumers may use money as a symbol of success to enhance their self-esteem, which leading compulsive purchasing of expensive products. Accumulated over time, such behaviors become compulsive buying. The money attitude tool has effect on compulsive buying (Park 2005). The only money attitude tools that have a negative effect is the retention-time and distrust tools, which is expected as the more consumers worry about their future and try to save money by time the less compulsive in their buying they will become. If consumers have a feeling of distrust towards something they will buy less compulsive.

Lea et al. (1993) reported that consumers' money attitudes are positively associated with compulsive buying. On young adults group of consumers is the most vulnerable to compulsive buying. They were brought up in a culture of indebtedness and instant gratification reported by Roberts (1998). They found increasing levels of compulsive buying among young adults in the USA relate to depression, anxiety, and low self esteem (Roberts and Jones, 2001). It has also contributed to personal finance problems, personal bankruptcy filings, and credit card debt.

*Review between credit card use relate to compulsive buying*

Many researchers found that the number of credit cards used regularly and the levels of credit debt are variables effect to compulsive buying (Norum, 2008; Joji and Raveendran, 2008; Park and Burns, 2005; Dittmar, 2005; Edwards, 1992 ; Black 1996). They also investigated that compulsive buyers tend to rely on credit cards and they are more likely to have used multiple credit cards at maximization financial limits. MacAndrew (1965) showed that a variety of compulsive buying addictive correlated significantly with many aspects of credit card usage, self-realization of excessive spending, and self-acknowledgment. Park (2005) also indicated that interactions between credit card usage and four other independent variables which including power-prestige, retention-time, distrust and anxiety have significant for dependent variable, compulsive buying behaviour, as both mediator and moderator of the relationship between individuals' compulsive buying and their anxiety levels. It trend to misuse of

credit cards to be greater when anxiety was higher, which fostered overspending

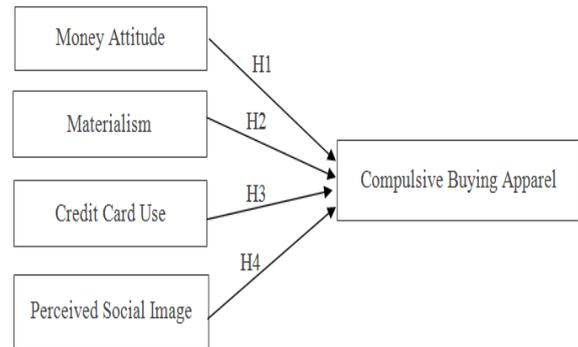


Figure 1: Conceptual Framework

*Research Hypotheses*

- H1o: There is no significant relationship between money attitude and compulsive buying
- H1a: There is a significant relationship between money attitude and compulsive buying
- H2o: There is no significant relationship between materialism and compulsive buying
- H2a: There is a significant relationship between materialism and compulsive buying
- H3o: There is no significant relationship between credit card use and compulsive buying
- H3a: There is a significant relationship between credit card use and compulsive buying
- H4o: There is no significant relationship between perceived social image and compulsive buying
- H4a: There is a significant relationship between perceived social image and compulsive buying

**Methodology**

This research is to study of factors that influent to compulsive buying. The research focuses on four independent variables which are money attitude, materialism, perceived social image, and credit card used affecting dependent variable which is compulsive buying. The researchers employ the techniques of convenience sampling in the study since these techniques have low cost required and are easy to collect data. The details of these techniques are as follows convenience sampling refers to sampling by obtaining people or units that are conveniently available. The researchers used descriptive research was defined as the characteristics of consumers or a population or a phenomenon. Descriptive research focuses on collected quantitative populations. Descriptive research studies about the characteristics and behavior of the population relationship with many variables (Zikmund, 2003). Also, survey method is applied in this research by distribution questionnaires for collect the data of respondents via the Surveycan link. This link is popular for doing survey. This is selected from the target

population through sampling. This online survey method provides a quick, inexpensive, efficient and accurate means of evaluation information of population. The researcher can get immediate information and complete the desired questionnaire within shorten period. Respondents from participants are collected via online questionnaire which was delivered to customer by fill in the survey on Surveycan Website.

**Data Collection**

In this research was collected by using a questionnaire which is distributed as online questionnaire via Surveycan website and share link to respondents. Questionnaires were obtained from 300 respondents including screening question. Moreover, the questionnaires were distributed in period 8th October -22nd October 2015.

**Summary of Hypothesis testing**

Table 1: Summary the result of Hypothesis testing

Hypothesis	Coefficient of Correlation	Sig.	Conclusion
H1 <sub>0</sub> : There is no significant relationship between money attitude and compulsive of buying.	-0.47	0.414	Failed to reject H1 <sub>0</sub>
H2 <sub>a</sub> : There is a significant relationship between materialism and compulsive of buying	0.521	0.000	Rejected H2 <sub>0</sub>
H3 <sub>a</sub> : There is a significant relationship between credit card use and compulsive of buying	0.310	0.000	Rejected H3 <sub>0</sub>
H4 <sub>a</sub> : There is a significant relationship between perceived social image and compulsive of buying	0.600	0.000	Rejected H4 <sub>0</sub>

**Discussion**

Based on the result of hypothesis one, the researcher found a moderate negative relationship between money attitudes and compulsive buying of apparel. It shows that attitude toward money of customers not related with compulsive buying so that they can buy apparel by less concern on budget planning. Future Park Rangsit might use promotion or advertisement of apparel product for customer attracting. Moreover from the result, it is shown that customers nowadays trend to plan for their budget in future which corresponds with high attitude toward

money. Future Park Rangsit might find the other factor that could effect to budget planning or money attitude of customer such as income, age and occupation. This study target customers and products that could serve their demand.

Based on the result of hypothesis two, the researcher found that there is a moderate positive relationship between materialism and compulsive buying. The more consumers see brands as a means of expressing self-concept the more they like shopping, Goldsmith (2011) found that the more consumers embrace a suite of materialistic values, the more likely they are to like shopping. So that Future Park Rangsit should increase new product designed, new feature, new fashion, new collection of cloth that can attract customer in a short time or create their high perceived value on product. These could encourage materialism person to do the compulsive buying of apparel.

Based on the result of hypothesis three, the researcher found that there is weak positive relationship between credit card use and compulsive buying. It shows that credit card use directly affect compulsive buying. So in order to increase customer buying, Future Park Rangsit could engage between credit card use activity and customer's shopping such as credit card promotions, cash back, point, reward, 0% installment and discount when using credit card etc.

Based on the result of hypothesis four, the researcher found that there is moderate positive relationship between Perceived social image and compulsive buying. So that Future park Rangsit should promote more on products and service that could enhance social status of customer such as charity, eco-green concept products. Moreover, Future Park Rangsit could influence compulsive buying by engaging public person with the apparel advertisement such as celebrity, athlete, politician, etc. according to these people are public esteem.

**Further Research**

Base on this conceptual framework other researchers may apply to study at different shopping malls in different geographic areas so that researchers could well understand the different perceptions of different customer groups. Such as at Paragon, Central world and Terminal 21, etc the customer may have different ideas and opinions on apparel products according to their education, income and age., etc.

In addition, researchers could also use different independent variables to test compulsive buying for apparel to better understand the factors affecting compulsive buying, such as brand loyalty, self-esteem, advertisements, etc.

**References**

Belk, R. & Wallendorf, M. (1990). The scared meaning of money. *Journal of Economic Psychology*, 11(1), 35-67.

- Black, D. (1996). Compulsive Buying: A Review. *Journal of Clinical Psychiatry*, 57 (8), 50–55.
- Carver, C.S. & Scheier, M.F. (1981). Attention and self-regulation: A control theory approach to human behavior. *Springer-Verlag*, New York
- Dittmar, H. (2005). A new look at ‘compulsive buying’: self-discrepancies and materialistic values as predictors of compulsive buying tendency. *Journal of Social and Clinical Psychology*, 24(6), 832-59.
- D’Astous, A. (1990). An inquiry into the compulsive side of ‘normal consumers’. *Journal of Consumer Policy*, 13(1), 15-32
- Edwards E.A. (1992). The management and modelling of compulsive consumer buying behavior. Ph.D. Dissertation, University of Michigan.
- Faber, R.J. & O’Guinn, T.C. (1989). Compulsive buying: a phenomenological exploration. *Journal of Consumer Research*, 16(2), 147-157.
- Feinberg, R.A. (1986). Credit card as spending facilitating stimuli: a conditioning interpretation. *Journal of Consumer Research*, 13(3), 348-356.
- Foon, Y.S. (2011). An Exploratory Study of the Relationships between Advertising Appeals, Spending Tendency, Perceived Social Status and Materialism on Perfume Purchasing Behavior. *International Journal of Business and Social Science*, 2 (10).
- Hanley, A. & Wilhelm, M.S. (1992). Compulsive buying: An exploration into self-esteem and money attitude. *Journal of Economic Psychology*, 13, 5-18.
- Jalees, T. (2007). Identifying determinants of compulsive buying behavior. *Market forces*, 3(2), 30-51.
- Joji, N.A. & Raveendran, P.T. (2008). Does Compulsive Buying Affect Credit Card Defaults?. *The Journal of Business Perspective*, 12 (4), 23-32.
- Kellett S. & Bolton JV. (2009). Compulsive buying: a cognitive-behavioural model. *Clinical Psychology & Psychotherapy*, 16(2), 83-99.
- Krueger, D.W. (1988). On compulsive shopping and spending: a psychodynamic inquiry. *American Journal of Psychotherapy*, 42(4), 574-84.
- Lea, S. E. G., Webley, P., & Walker, C. M. (1993). Psychological factors in consumer debt: Money management, economic socialisation, and credit usage. *Journal of Economic Psychology*, 16, 681-701.
- MacAndrew S. (1965). The differentiation of male alcoholics outpatients from nonalcoholic psychiatric outpatients by means of the MMPI. *Quarterly Journal of Studies on Alcohol*, 26, 238-246.
- Neuner, M., Raab, R. & Reisch, L.A. (2005). Compulsive buying in maturing consumer societies: an empirical re-inquiry. *Journal of Economic Psychology*, 26(4), 509-22.
- Norum, P.S. (2008). The role of time preference and credit card usage in compulsive buying behavior. *International Journal of Consumer Studies*, 32 (3), 269-275.
- Park H-J & Burns L.D., (2005). Fashion orientation, credit card use, and compulsive buying. *Journal of Consumer Marketing*, 22 (3), 135 - 141.
- Quoquab F. (2013). Compulsive Buying Behavior among young malarian consumers. *World Review of Business Research*, 3(2), 141-154.
- Richins, ML & Dawson, S. (1992). A consumer values orientation for materialism and its measurement: scale development and validation. *Journal of Consumer Research*, 19(3),303-16.
- Ridgway N. M., Kukar-Kinney M. & Monroe K.B. (2008). An Expanded Conceptualization and a New Measure of Compulsive Buying. *Journal of Consumer Research*, 35(4), 622-39
- Roberts J.A. & Sepulveda M. (1999). Money Attitudes and Compulsive Buying: An Exploratory Investigation of the Emerging Consumer Culture in Mexico. *Journal of International Consumer Marketing*, 11(4), 53-74.
- Roberts, J.A. & Jones, E. (2001). Money attitudes, credit card use, and compulsive buying among American college students. *Journal of Consumer Affairs*, 35, 213-40.
- Roberts, J. (1998). Compulsive buying among college students: an investigation of its antecedents, consequences, and implications for public policy. *Journal of Consumer Affairs*, 32(2) 295-319.
- Wicklund, R.A. & Braun, O. (1989). Psychological antecedents of conspicuous consumption. *Journal of Economic Psychology*, 10(2), 161-87
- Xu, Y. (2008). The influence of public self-consciousness and materialism on young consumers compulsive buying. *Young Consumers*, 9 (1), 37-48.
- Zikmund, W.G. (2003). *Business Research Methods* (7th ed.), South-Western, Ohio.
- <http://www.nationmultimedia.com/business/Robinson-adopts-lifestyle-model-as-high-season-near-30269580.html>

## An Analysis of Thailand's Leading Mobile Operators' Service Revenues and the Influence of Competitors' Marketing Expenses

Pornphen Chanwerawong<sup>1</sup>, Pornphan Chanwerawong<sup>2</sup>, and Dolchai La-ornual<sup>3\*</sup>

<sup>1,3</sup> *Master of Business Administration Program, Business Administration Division, Mahidol University International College, Salaya, Nakhon Pathom 73170, Thailand*

<sup>2</sup> *Master of Economics Program, Faculty of Economics, Thammasat University (Tha Prachan Campus), Bangkok 10200, Thailand*

*\*Corresponding Author. E-mail: dolchai.lar@mahidol.ac.th*

### Abstract

Thailand's telecommunication industry is large, growing, and highly competitive. The number of mobile users has exceeded the population since 2010 with a mobile penetration around 136%. After the introduction of 3G licenses, mobile penetration has progressed rapidly. In 2014 alone, it went up from 34% to 51%. Revenues are especially important for each firm's profitability because of constant technological advances and evolving consumer behaviors. This study aims to identify the drivers of the service revenues of the three leading mobile operators in Thailand (98% of market shares on aggregate). It uses stepwise linear regression analysis for service revenue and panel data regression for the overall perspective. Three hypotheses are considered in this study. The panel data regression analyzes collectively the effects of all relevant factors on service revenues. The results show that marketing expenses can significantly affect the number of postpaid subscribers, who, as evidenced by the stepwise linear regression results, significantly affect the service revenues of all three mobile operators. Although prepaid subscriptions are still popular in Thailand, the industry has been experiencing a gradual shift from predominantly prepaid subscribers to postpaid ones due to customers' growing attraction to data usage. In addition, revenues from value-added services (data usage) are becoming an increasingly important component of service revenues. Data services will continue to be the growth engine, as the demand of mobile Internet continues to rise together with the trend of social networking, and affordable low-end smartphones. Moreover, mobile operators are likely to face the introduction of new technologies or improvement of the existing ones, which means that investment, operation, and marketing expenses will most likely rise.

**Keywords:** Telecommunication, service revenue, marketing expenses

### Introduction

The telecommunication industry is large, fast growing, and highly competitive. The total number of mobile subscriptions in Thailand is 97 million and has exceeded its population since 2010. Growth has been rapid, especially after the introduction of 3G licenses granted to AIS, DTAC, and True Move in 2003 (Sakawee, 2013). According to the National Broadcasting and Telecommunications Commission (NBTC) (2015), the number of mobile subscribers increased from 80.21% to 127.85% during 2007-2012. The percentage of mobile connections that are prepaid users and postpaid users are 86% and 14%, respectively. In addition, 75% of all subscribers connect with 3G or 4G broadband (Fairfield, 2015). Mobile operators in Thailand are led by three players: Advanced Info Service (AIS), Total Access Communication (DTAC), and True Move, with market shares of 46.52%, 28.50% and 24.26% respectively (Yozzo Co., 2015). Mobile penetration is approximately 130% in 2013 (MEF, 2013). In March 2015, Thai population is around 67.4 million people and mobile penetration is around 136%.

Moreover, smartphone penetration has been increasing by 34% in 2014 to 51% (Adkins, 2015).

Three main operators in Thailand provide added on services apart from voice to attract customers. AIS is the leader of market share, which has 43% of total market share with the leading in both subscribers and revenue market share. AIS launch many entertainment services including digital music store, electronics-book store, movie streaming, and Premiere League football LIVE broadcast for all those iOS and Android users. On the other hand, DTAC has 31% of market share and it is the only network that provide service over three networks: 1800 MHz, 850 MHz and 2100 MHz. Since 80% of their users are on social media every day, DTAC supply free Facebook messenger and stickers for users. For True, it is a convergence lifestyle leader as they provide fixed line, broadband Internet, Pay TV, electronic cash payment service and mobile. Holding a 24% share of the market by having True Move H, True dominates the mobile Internet with 4G LTE and 3G networks (MEF, 2013).

Revenue is an important aspect of a firm's profitability, especially in industry with constant innovation. Development of mobile industry accelerated from the introduction of third generation services (3G). According to Fitch Ratings (2014), Thai mobile operators will continue to lose voice revenues while non-voice revenues will grow strongly, which may be enough to offset the former decline. Telecommunications is an industry that depends on technological advancements. Changes in ways that consumers communicate necessitates development of companies competing in the oligopolistic market. Sources of mobile revenue are increasing coming from value-added services (VAS) since consumers' behavior shift to use more data usage (Internet). Mobile phones also develop into smart phones, which means that consumers can surf the Internet or connect to social media like Facebook, Instagram, etc. Consumer behaviors are switching from calling or texting to contacting via over the top applications such as LINE, WhatsApp, etc. According to the data provided by Fairfield (2015), out of Thailand's total population of 64.9 million including children, 23.9 million (37%) are an active Internet users, 32 million (49%) have active social media accounts, 97 million (150%) have mobile connections or are mobile subscribers, and 28 million (43%) are active mobile social accounts. The report also reveals that Thai people spend almost five and a half hour per day on average using the Internet via a PC computer or tablet and four hours per day on their mobile phone (Ibid).

There are many studies related to revenue, profit, or cost of telecommunication firms. Koi-Akrofi (2012) studied the profitability of the telecommunications industry in Ghana. The researcher found positive correlations between the following pairs: net assets and return on assets, return on equity and return on assets, and debt to equity and debt to asset ratio. Stierwald (2009) found that lagged profit, productivity level, and size have a positive and large impact on firms' profitability.

This study will focus on factors that influence service revenues of mobile operators in Thailand. The statistical methods that will be used are stepwise linear regression analysis for service revenue from each company and panel data regression for overall perspective. Results from this study will identify drivers of mobile operators' revenues. This will enable mobile operators to adopt appropriate business strategies that will gain their companies higher revenues. Marketing expenses such as advertisement might be one of the tools that can promote consumers to use a particular service or operator. It can be done by employing brand ambassadors who are famous actors/actresses or singers. For example, AIS has hired Jame-Ji, one of the most popular Thai celebrity to be its brand ambassador.

## Materials and Methods

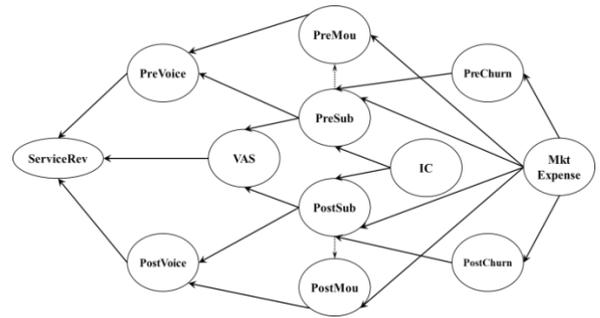


Figure 1 Conceptual framework under this study

### Stepwise Linear Regression

In this study, we first explore relationships between all of the available explanatory variables and the service revenue for each firm. (Note that the mobile operators will from now on be referred to as Company A, Company B, and Company C.) The specific hypotheses are as follows:

H1: There is a relationship between each operator's service revenue and the number of prepaid subscribers, the number of postpaid subscribers, interconnection charges (IC), marketing expenses, and its one-quarter lag.

$$AServiceRevenue_t = a_0 + a_1AIC_t + a_2APreSub_t + a_3APostSub_t + a_4AMKT_t + a_5AVAS_t + a_6AMKT_{t-1} + a_7BMKT_t + a_8BMKT_{t-1} + a_9BMKT_t + a_{10}CMKT_{t-1}$$

$$BServiceRevenue_t = b_0 + b_1BIC_t + b_2BPreSub_t + b_3BPostSub_t + b_4BMKT_t + b_5BVAS_t + b_6AMKT_t + b_7AMKT_{t-1} + b_8BMKT_{t-1} + b_9CMKT_t + b_{10}CMKT_{t-1}$$

$$CServiceRevenue_t = \beta_0 + \beta_1CIC_t + \beta_2CPreSub_t + \beta_3CPostSub_t + \beta_4CMKT_t + \beta_5CVAS_t + \beta_6CMKT_{t-1} + \beta_7AMKT_t + \beta_8AMKT_{t-1} + \beta_9CMKT_t + \beta_{10}CMKT_{t-1}$$

H2: There is a relationship between the number of prepaid subscribers, marketing expenses, and its one-quarter lags.

$$APreSub_t = a_0 + a_1AMKT_t + a_2AMKT_{t-1} + a_3BMKT_t + a_4BMKT_{t-1} + a_5CMKT_t + a_6BMKT_{t-1}$$

$$BPreSub_t = b_0 + b_1AMKT_t + b_2AMKT_{t-1} + b_3BMKT_t + b_4BMKT_{t-1} + b_5CMKT_t + b_6CMKT_{t-1}$$

$$CPreSub_t = \beta_0 + \beta_1AMKT_t + \beta_2AMKT_{t-1} + \beta_3BMKT_t + \beta_4BMKT_{t-1} + \beta_5CMKT_t + \beta_6CMKT_{t-1}$$

H3: There is a relationship between the number of postpaid subscribers, marketing expenses, and its one-quarter lags.

$$APostSub_t = a_0 + a_1AMKT_t + a_2AMKT_{t-1} + a_3BMKT_t + a_4BMKT_{t-1} + a_5CMKT_t + a_6BMKT_{t-1}$$

$$BPostSub_t = b_0 + b_1AMKT_t + b_2AMKT_{t-1} + b_3BMKT_t + b_4BMKT_{t-1} + b_5CMKT_t + b_6CMKT_{t-1}$$

$$CPostSub_t = \beta_0 + \beta_1AMKT_t + \beta_2AMKT_{t-1} + \beta_3BMKT_t + \beta_4BMKT_{t-1} + \beta_5CMKT_t + \beta_6CMKT_{t-1}$$

In the above equations, IC stands for interconnection charges or revenue generated from traffic termination from a competitor's network (Bt mn), PreVoice is prepaid domestic voice call revenue (Bt mn), PostVoice is postpaid domestic voice call revenue (Bt mn), PreSub is the number of prepaid registered SIM at ending period whose status is not defined as churn (number of people), PostSub is the number of postpaid registered SIM at ending period whose status is not defined as churn (number of people), MKT is the marketing expenses (Bt mn), PreMou is the minutes generated by prepaid subscribers (minute/month/subscriber), PostMou is the minutes generated by postpaid subscribers (minute/month/subscriber), PdtSales is the handset and SIM card sales (Bt mn), VAS is the value-added service (non-voice revenue) – all non-voice services such as mobile data, SMS, MMS, ring back tone, content and other value added services (Bt mn), PreChurn is the number prepaid subscribers who do not refill to extend their validity within 45 days or subscribers who are inactive more than 90 days churn rate (% per month), PostChurn is the number of postpaid subscribers whose payment statuses are overdue for more than 45 days from due date (% per month), PreARPU is the sum of revenues from voice, non-voice, outbound roaming, international direct dialling (IDD) divided by the average number of prepaid subscribers (Bt/month/subscriber), and PostARPU is the sum of revenues from voice, non-voice, outbound roaming, international direct dialling (IDD) divided by the average number of postpaid subscribers (Bt/month/subscriber). All the mentioned data are publicly available, which exception of some Company B and Company C did not provide. (We excluded these publicly unavailable data from the analyses.)

We used stepwise linear regression to choose variables that are statistically significant. The R-squared value enabled us to analyze the effect in the model as it indicates the proportion of the variance in the dependent variable that can be explained by the combination of explanatory variables (Gujarati & Porter, 2009).

We started with the full model, including all available explanatory variables for each company. Variable selection is done by using a stepwise linear regression. We checked for multicollinearity, which is whether two or more regressors are highly correlated by examining the Variance Inflation Factor (VIF). In order to fix the problem, we omitted the highly correlated variables. We also tested for heteroscedasticity by using White test and Breusch-Pagan/Cook-Weisberg test. Lastly, we checked for autocorrelation by using Durbin-Watson test and Breusch-Godfrey LM test. The null

hypothesis for both tests is that there is no serial correlation (Gujarati & Porter, 2009).

### Panel Data Regression

Panel data are time series – cross sectional data. For the cross section data,  $i = 1, 2, 3, \dots, N$ . For the time series data,  $t = 1, 2, 3, \dots, T$ . (In general, more data,  $N \times T$ , generally leads to better estimation.) The panel data model assumes a stable slope coefficient (same  $\beta_1$ ). For pooled regression, the model is  $Y_{it} = \beta_0 + \beta_1 X_{it} + U_{it}$  where  $i = 1, 2, 3, \dots, N$ ;  $t = 1, 2, 3, \dots, T$ . This implies that it has the same intercept and the same slope. The panel data model,  $y_{it} = \alpha_i + \mathbf{x}'_{it}\boldsymbol{\beta} + \varepsilon_{it}$ , allows each cross-sectional unit to have different intercepts, but the slopes are still the same –  $\varepsilon_{it}$  is iid over  $i$  and  $t$  and is a unit root (Wooldridge, 2010).

Panel data are used when individuals are observed at several points in time. In this case, firms are observed quarterly from 2005 to 2015. Panel unit root test requires long time series to be consistent. For short time series, which is the case for the data in this study, it is not a reliable test. Hence, the stationary test is not required.

In this study, we are interested in describing the change over time, which is the evolution of mobile operators' service revenues. Each individual  $i$  in this study is observed in all time periods  $t$ . Thus, the data is a balanced panel. The causal relationship between revenue and other explanatory variables are tested using the time series data. The number of observations in this study is relatively small (9 years quarterly data). Thus, such short series panel data will result in a unit root, which can be resolved by applying the first-difference model.

The model of first-difference comes from lagging one period ( $y_{i,t-1} = \alpha_i + \mathbf{x}'_{i,t-1}\boldsymbol{\beta} + \varepsilon_{i,t-1}$ ) as follows (Wooldridge, 2010):

$$y_{it} - y_{i,t-1} = (\mathbf{x}_{it} - \mathbf{x}_{i,t-1})'\boldsymbol{\beta} + (\varepsilon_{it} - \varepsilon_{i,t-1}), i=1, \dots, N, t=2, \dots, T$$

After subtracting, the intercept term disappear. The first-difference estimator is the ordinary least square (OLS) estimation. It yields consistent estimates of  $\boldsymbol{\beta}$  in the fixed effect model that the time-invariant coefficients cannot identify. The first-difference estimator measures the association between individual-specific one-period changes in regressors and individual-specific one-period changes in the dependent variable (Wooldridge, 2010). The panel data equation for the first model in this study is as follows.

$$\Delta servicerevenue_{it} = \gamma_0 \Delta prevoice_t + \gamma_1 \Delta postvoice_t + \gamma_2 \Delta VAS_t + \gamma_3 \Delta presub_t + \gamma_4 \Delta postsub_t + \gamma_5 \Delta IC_t + \gamma_6 \Delta MKT_t$$

In the second panel data model, we include the one period lag marketing expenses in addition to other variables in the first model.

$$\Delta servicerevenue_{it} = \gamma_0 \Delta prevoice_t + \gamma_1 \Delta postvoice_t + \gamma_2 \Delta VAS_t + \gamma_3 \Delta presub_t + \gamma_4 \Delta postsub_t + \gamma_5 \Delta IC_t + \gamma_6 \Delta MKT_t + \gamma_7 \Delta MKT_{t-1}$$

The third model omits prepaid voice revenues and postpaid voice revenues from the equation.

$$\Delta service_{it} = \gamma_0 + \gamma_1 \Delta presub_t + \gamma_2 \Delta postsub_t + \gamma_3 \Delta IC_t + \gamma_4 \Delta MKT_t$$

With respect to the third model, the fourth model includes an additional variable of one period lag in marketing expenses.

$$\Delta service_{it} = \gamma_0 + \gamma_1 \Delta presub_t + \gamma_2 \Delta postsub_t + \gamma_3 \Delta IC_t + \gamma_4 \Delta MKT_t + \gamma_5 \Delta MKT_{t-1}$$

After the investigation of possible relationships between all explanatory variables and service revenue, we examine another level of relationship between marketing expenses with and without lag with each of the following variables: prepaid subscribers, postpaid subscribers, and VAS.

The specific hypotheses are as follows:

H4: There is a positive relationship between the number of prepaid subscribers and marketing expenses.

$$\Delta presub_{it} = \gamma_0 + \gamma_1 \Delta MKT_t + \gamma_2 \Delta MKT_{t-1}$$

H5: There is a positive relationship between the number of postpaid subscribers and marketing expenses.

$$\Delta postsub_{it} = \gamma_0 + \gamma_1 \Delta MKT_t + \gamma_2 \Delta MKT_{t-1}$$

H6: There is a positive relationship between VAS and marketing expenses.

$$\Delta VAS_{it} = \gamma_0 + \gamma_1 \Delta MKT_t + \gamma_2 \Delta MKT_{t-1}$$

## Results and Discussion

### Stepwise Linear Regression

From the results in Table 1, the number of postpaid subscribers significantly (and positively) affects each of the mobile operator's service revenue ( $p < 0.001$  for all). However, the number of prepaid subscribers only significantly affects the service revenues for Company A and Company B ( $p < 0.001$  for both). In addition, IC only significantly affects both Company A and Company C ( $p < 0.01$  for both). For Company A, IC, prepaid subscribers, and postpaid subscribers all have positive effects on its revenues. However, the effect of the latter (0.0030) seems to be much larger than those of the other two factors (0.0004). For Company B, both prepaid subscribers and postpaid subscribers have positive effects on service revenue. The comparative effects are comparable to that of Company A, with the latter (0.0011) being greater than the former (0.0003).

Table 1: Hypothesis 1 (Dependent variable: Service revenue)

Variables	A			B			C		
	Coefficient	Std. Err.	t	Coefficient	Std. Err.	t	Coefficient	Std. Err.	t
IC	0.0004 **	0.0001	4.90				0.6683 **	0.2053	3.25
Pre Sub	0.0004 ***	0.0001	4.90	0.0003 ***	0.0001	5.58			
Post Sub	0.0030 ***	0.0006	4.68	0.0011 ***	0.0003	3.23	0.0017 ***	0.0001	21.34
MKT							0.1966 *		
Constant	-2038.775 ***	2636.569	-0.77	5823.984 ***			2572.658 ***	441.0268	5.83
N	35			35			29		
F-stat	124.34			72.72			842.45		
	Prob(>0.000)			Prob(>0.000)			Prob(>0.000)		
R-squared	0.9233			0.8196			0.9902		
Adjusted									
R-squared	0.9158			0.8084			0.9890		

\* p<0.05, \*\* p<0.01, \*\*\* p<0.001

It can be seen from Table 2 below that Company C's marketing expenses can significantly affect the number of prepaid subscribers for both Company A ( $p < 0.001$ ) and Company B ( $p < 0.01$ ). In particular, in addition to being affected by its own marketing expenses, the number of prepaid subscribers of Company A is only comparably affected (positively) by the marketing expenses of Company C (1006 versus 1167). In contrast, the number of prepaid subscribers of Company B is only affected (positively) by the marketing expenses of Company C comparably both in the same period and also from a previous period (1872 and 1933). For Company C itself, its own marketing expenses in the concurrent period is the only factor that affects its number of prepaid subscribers.

Table 2: Hypothesis 2 (Dependent variable: Prepaid Subscribers)

Variables	A			B			C		
	Coefficient	Std. Err.	t	Coefficient	Std. Err.	t	Coefficient	Std. Err.	t
AMKT	606.3750 **	1197.721	3.35						
CMKT				1871.8650 **	590.5588	3.17	2344.6170 ***	357.9995	6.55
CMKT (t-1)	456.5130 ***	641.6310	6.40	1093.1000 **	593.8262	3.26			
Constant	2.81E+07 ***	2011841	19.67	1.44E+07 ***	632219.4	22.70	1.28E+07 ***	642561.6	19.91
N	29			29			29		
F-stat	43.08			59.35			45.4		
	Prob(>0.000)			Prob(>0.000)			Prob(>0.000)		
R-squared	0.8291			0.8329			0.6271		
Adjusted R-squared	0.816			0.806			0.6133		

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

The results in Table 3 show that each firm's marketing expenses significantly (and positively) affects its own number of postpaid subscribers ( $p < 0.001$  for all). However, as in the analysis for prepaid subscribers above, Company C's marketing expenses also significantly (and positively) affect Company A's and Company's B number of postpaid subscribers albeit with different delays (603 for Company A and 341 for Company B). In addition, Company A's marketing expenses also in turn affect Company C's number of postpaid customers.

Table 3: Hypothesis 3 (Dependent variable: Postpaid Subscribers)

Variables	Coefficient	Std. Err.	t	Coefficient	Std. Err.	t	Coefficient	Std. Err.	t
ΔMKT (t-1)	962.4180 ***	282.1691	4.76	1047.5700 ***	336.3942	7.68	1126.7240 ***	227.6405	4.96
BMKT							843.7755 ***	115.5607	7.33
CMKT	693.2200 ***	302.7229	5.87	141.3343 ***	61.13118	5.32			
DMKT (t-1)									
Constant	166837 ***	38532.8	9.81	1229037 ***	306302.3	11.56	-283940.4 ***	207965.6	-1.36
N	29			29			29		
F-test	59.48			129.94			79.94		
	Prob(0.000)			Prob(0.000)			Prob(0.000)		
R-squared	0.8296			0.9001			0.9801		
Adjusted R-squared	0.8068			0.9021			0.9494		

\* p<0.05; \*\* p<0.01; \*\*\* p<0.001

### Panel Data Regression

The panel data regression analyzes collectively, for the three mobile operators, the effects of all relevant factors on service revenues. In Table 4, we see that prepaid voice, postpaid voice, and VAS all significantly (and positively) affect the service revenues ( $p < 0.001$ ,  $p < 0.05$ , and  $p < 0.001$  respectively). Moreover, VAS tends to have a greater effect than the other two regressors (0.6863, 0.8402, 1.3313 for the three variables respectively).

Table 4: First Difference (Dependent variable: Service Revenue)

Variables	Coefficient	Std. Err.	t
Pre Voice	0.6863 ***	0.1608	4.27
Post Voice	0.8402 *	0.3886	2.16
VAS	1.3313 ***	0.3734	3.57
Pre Sub	0.0001	0.0001	1.33
Post Sub	-0.0007	0.0010	-0.76
IC	-0.0985	0.1828	-0.54
MKT	-0.0053	0.2425	-0.02
MKT (t-1)	-0.0286	0.2429	-0.12
Constant	-84.77878	117.0519	-0.72
N	93		
F-test	4.63		
	Prob(0.001)		
R-squared	0.3058		
Adjusted R-squared	0.2397		

\* p<0.05; \*\* p<0.01; \*\*\* p<0.001

Next, we omit the immediate factors of prepaid voice, postpaid voice, and VAS, which directly affect service revenues. Instead we focus on the underlying values of prepaid subscribers, postpaid subscribers, IC, and market expenses (with and without one period lag). We find as shown in Table 5, that there is no statistically significant relationship between service revenues and any of these independent variables.

Table 5: First Difference (Dependent variable: Service Revenue)

Variables	Coefficient	Std. Err.	t
Pre Sub	0.0001	0.0001	1.18
Post Sub	0.0004	0.0009	0.39
IC	0.1280	0.1973	0.65
MKT	0.1860	0.2655	0.70
MKT (t-1)	0.2624	0.2645	0.99
Constant	133.3644	114	1.17
N	96		
F-test	0.67		
	0.6498		
R-squared	0.0357		
Adjusted R-squared	-0.0179		

\* p<0.05; \*\* p<0.01; \*\*\* p<0.001

In Tables 6, 7, and 8 below, we examine independently, the impacts of marketing expenses on the number of prepaid subscribers, the number of postpaid subscribers, and VAS. The results show that marketing expenses affect most significantly the number of postpaid subscribers with both immediate impact ( $p < 0.05$ ) and delayed impact ( $p < 0.01$ ). The magnitudes of the two effects are also comparable (66.76 versus 79.94). Marketing expenses (with one period lag) also affect VAS ( $p < 0.05$ ), but they do not significantly affect the number of prepaid subscribers.

Table 6: Hypothesis 4 (Dependent variable: Prepaid Subscribers)

Variables	Coefficient	Std. Err.	t
MKT	185.9380	237.5066	0.78
MKT (t-1)	174.6199	226.3812	0.77
Constant	314086.98 ***	72202.04	4.35
N	111		
F-test	0.42		
	Prob(0.6561)		
R-squared	0.0078		
Adjusted R-squared	-0.0106		

\* p<0.05; \*\* p<0.01; \*\*\* p<0.001

Table 7: Hypothesis 5 (Dependent variable: Postpaid Subscribers)

Variables	Coefficient	Std. Err.	t
MKT	66.7551 *	30.3993	2.20
MKT (t-1)	79.9362 **	28.9753	2.76
Constant	80782.12 ***	9241.395	8.74
N	111		
F-test	4.44		
	Prob(0.0141)		
R-squared	0.0759		
Adjusted R-squared	0.0588		

\* p<0.05; \*\* p<0.01; \*\*\* p<0.001

Table 8: Hypothesis 6 (Dependent variable: VAS)

Variables	Coefficient		Std. Err.	t
MKT	0.1003		0.0753	1.33
MKT (t-1)	0.1464	*	0.0718	2.04
Constant	219.0513	***	22.89191	9.57
N	111			
F-test	2.21			
	Prob(0.1147)			
R-squared	0.0393			
Adjusted R-squared	0.0215			

\* p<0.05; \*\* p<0.01; \*\*\* p<0.001

### Discussion

From the stepwise linear regression results, there is evidence that postpaid customers significantly affect the service revenues of all three mobile operators. We also found that marketing expenses of Company C tend to affect the other two operators' prepaid and postpaid subscribers. Results from both the stepwise linear regression and the panel data regression also show that marketing expenses significantly affect each firm's number of postpaid subscribers. Thus, we can conclude that mobile operators' marketing expenses affect the number of postpaid subscribers, which in turn seems to affect their service revenues. In addition, Company C's marketing expenses seem to have significant influences on the number of its competitors' subscribers. Furthermore, VAS or revenue from data usage have a significant impact on the service revenues.

In general, Thailand's mobile telecommunication industry has been experiencing a gradual shift from predominantly prepaid subscribers to postpaid ones. Part of the reason is the attraction of customers to data usage since the launches of smartphones such as Blackberry and iPhone. The average revenue per user (ARPU) for postpaid customers is also 2-3 times higher than those of prepaid customers. This is why mobile operators have been offering more promotional packages for their postpaid users. Furthermore, there are also attractive prepaid to postpaid migration campaigns. And because smart devices have now become ubiquitous, more customers are registering as postpaid customers, which would allow them to use their mobile phones with generous credit limits unlike prepaid subscribers.

In the past, prepaid subscriptions have been more popular than postpaid ones. There are many reasons for this. First, prepaid service is normally chosen when customers buy their first SIM card. These customers can avoid the risk or shock since prepaid service offer a simple method to control and enforce a spending limit. Second, some subscribers do not have a regular income. Thus, it may be difficult for them to become postpaid subscribers because of their credit ratings. Mobile operators have also tried to offer on-top prepaid packages or more customizations to increase this customer base. However, most of the prepaid customers are price sensitive with low loyalty. Thus, they tend to switch easily from one operator to another. Although

prepaid subscribers can internally migrate to become postpaid subscribers, they may be forced to pay monthly package fees for services they rarely use. In comparison, if prepaid users do not want to continue using their SIM cards, they can simply stop refilling money. There is no need to call or visit a service center to cancel a package. This is why prepaid subscriptions are still popular in Thailand today. For example, Company A and Company C have more variety for top-up channels. In particular, Company A has expanded its distribution channels for top-ups such as online refill service, ATM, and Phone Banking, which is more convenient so their customers do not have to rely on physical cards only.

With respect to the emergence of Company C and its influential marketing expenses, the operator entered the market last after Company A and Company B. Thus, it had to create brand awareness to increase market share and expand subscriber base. According to the Thai governmental regulations, network operators under a CAT concession have to pay an access charge as a percentage of revenues to TOT. Company A, in particular, did not have to pay the access charge since it received a concession directly from TOT. Thus, this kind of uneven treatment among network operators had created a competitive advantage for Company A

Company A's early entry into the 3G arena most probably slowed Company C's postpaid market share gain. Company A and Company B have also penetrated into rural areas as there are gaps where fixed line connections cannot be reached. The mobile penetration rates in North and Northeast Thailand have been quite low, but Company A and Company B have captured this group by localized marketing campaign on prepaid product (Investor, 2006). In comparison, Company C's key competitive strategy is one of lifestyle convergence. It offers bundled services through its affiliated enterprises. Its subscribers could earn free airtime during off-peak hours by buying a variety of unrelated products and services. Company C's postpaid subscribers can also purchase bundled mobile and internet packages online. Furthermore, Company C was the first to distribute iPhones in Thailand, which were sold with monthly postpaid packages. This is consistent with Company C's management aims to increase the postpaid subscribers base in order to cross-sell more bundled services and increase average revenue per user (ARPU).

At the beginning, Company C entered into the market by using a price war strategy. It targeted the low end callers who are sensitive to tariffs and acquired fewer minutes of usage (MOU). Company C also had a lower prepaid average revenue per user (ARPU) when compared to its competitors. Thus, the attractive price plan was able to convince some customers from Company A and Company B to migrate. This resulted in an increasing churn rate for the two operators. This strategy may not be so profitable in the long run as Company C's ARPU has dropped significantly in recent years.

The reason why people may have delayed reactions to marketing expenses is because of behavioral changes. Customers might wait for new promotions or the end of their bill cycle. Company A has the largest subscriber base (around 46%) compared to Company B and Company C (Mobile Market Share (%), 2015). It is well-known for building brand loyalty by offering privileges and organizing activities based on personal lifestyles. Their customers are classified into level according to average monthly fees and length of time as customers.

Based on advertising budgets from Nielsen Advertising Information Service in 2014, Company C spent the most, followed by Company A, then and Company B (Media Industry Outlook 2014, 2015). Company C managements believed that the introduction of 3G could be an important chance to gain more subscribers and become the leader in subscriber market share. Thus, Company C employed four presenters which are Nadech, Yaya, Boy Pakorn, and Marky while Company A only hired Jame Ji. Company B in contrast decided not to use any brand representative. Company C with unique and creative marketing campaigns enjoyed vast exposure, such as the highly popular UBC AF3 campaign and the bundling of their entertainment services. Company C also spent substantial marketing expense on Academy Fantasia.

Demand for mobile data usage will continue to rise. This is mainly due to popularity of mobile internet access, instant messaging services, and social networking. This will initiate mobile operators to come up with new data packages to meet the different preferences of consumers, both prepaid and postpaid. Volume based data packages are expected to be more popular as compared to time based packages due to the popularity of smart devices since users are likely to be connected 24/7. Marketing expenses can affect VAS revenue, especially for the top package which includes mobile data, SMS, or MMS. Customers might look for on top promotion only when they use up data in their main package. Company C service revenue is mainly driven by postpaid and non-voice revenue. Company C has quite a strong growth in postpaid subscribers over the year due to sales of premium handsets such as iPhone. It was the first operator to distribute iPhone (iPhone 3G) in 2009 along with monthly (postpaid) package with contract. In the data segment, Company A is likely to benefit most from rising data usage given its wider network coverage (900 MHz). Moreover, Company A invested heavily in its 3G network and has strengthened its competitive position in non-voice service even though it does not offer 4G services like others.

### **Conclusions**

Thailand's telecommunication market is highly competitive and sensitive to price competition due to saturation in the voice market. Drivers that could increase subscribers are surging multiple-devices and data SIM users, growing Machine to Machine (M2M)

enterprise market, and organic growth from rural segment.

Data services would continue to be the growth engine, as the demand of mobile Internet continues to rise together with the trend of social networking, and affordable low-end smartphones. This handset business would be key to support data services, as well as applications to accommodate multi-operating systems, and local contents, etc.

Mobile operators may face introduction of new technologies or improvement of the existing ones. Thus, investment, operation, and marketing expenses will most likely rise, in conjunction with various handset campaigns. Forecasting the change in market behavior may affect each firm's competitiveness and increase the levels of customer satisfactions.

Competitive data pricing, handset promotions, and strength in signal coverage could be important growth factors for all mobile operators. While all three telecoms offer similar packages and handset subsidies, the differentiating points are the quality of the networks and house-branded handset bundling.

### **References**

- Adkins, S. S. (2015). The 2014-2019 Asia mobile learning market. Retrieved December 28, 2015, from <http://www.ambientinsight.com/Resources/Documents/AmbientInsight-2014-2019-Asia-Mobile-Learning-Market-Overview.pdf>
- Fitch Ratings. (2014). Fitch: Slow revenue but strong earnings growth for Thai Telcos. Retrieved December 28, 2015, from [https://www.fitchratings.co.th/rws/press-release.html?report\\_id=919595](https://www.fitchratings.co.th/rws/press-release.html?report_id=919595)
- Gujarati, D., & Porter, D. (2009). *Basic Econometrics* (5 ed.). New York: McGraw-Hill Higher Education.
- Investor. (2006). Revenue Structure. Retrieved December 14, 2015, from [http://investor.ais.co.th/Document/Annual\\_report/012RevenueStructureandBusinessDirection\\_2006.pdf](http://investor.ais.co.th/Document/Annual_report/012RevenueStructureandBusinessDirection_2006.pdf)
- Koi-Akrofi, G. Y. (2012). Profitability analysis of the telecommunications industry in Ghana from 2002 to 2006. *Asian journal of business management*, 5 (1), 60-76.
- Media Industry Outlook 2014. (2015). Top 10 brands in highest Thailand spending advertisement in 2013. Retrieved December 10, 2015, from <http://www.brandbuffet.in.th/2014/01/media-industry-outlook-2014/#qBDcZcB8ymb2cuOm.97>
- MEF. (2013). Ten things you need to know about the Thai mobile market. Retrieved December 28, 2015, from <http://www.mobileecosystemforum.com/2013/10/24/ten-things-you-need-to-know-about-the-thai-mobile-market/>

- Mobile Market Share (%). (2015). NBTC: Thailand ICT Information - Mobile-Minute of Use. Retrieved December 10, 2015, from [http://www.nbtc.go.th/TTID/mobile\\_market/market\\_share/](http://www.nbtc.go.th/TTID/mobile_market/market_share/)
- NBTC. (2015). Mobile penetration. Retrieved December 10, 2015, from [http://www2.nbtc.go.th/TTID/mobile\\_market/penetration\\_postpre/](http://www2.nbtc.go.th/TTID/mobile_market/penetration_postpre/)
- Sakawee, S. (2015). Thai telco Dtac gets more social, adds special Facebook messenger stickers. Retrieved December 12, 2015, from <https://www.techniasia.com/thai-telco-dtac-social-adds-special-facebook-messenger-stickers/>
- Stierwald, A. (2009). Determinants of firm profitability - The effect of productivity and its persistence. the 2009 Econometric Society Australasian Meeting (ESAM 2009). Canberra, Australian Capital Territory, Australia.
- Wooldridge, J. (2010). In *Econometric Analysis of Cross Section and Panel Data*. Massachusetts: The MIT Press.
- Yozzo Co., L. (2015). Thailand's mobile market information Q4 2014. Retrieved June 15, 2015, from <http://www.slideshare.net/yozzo1/thailands-mobile-market-information-q4-2014>

## An Empirical Study of Customer Satisfaction towards Food Delivery Online Using Mobile Application in China

Haohan Yao and<sup>1</sup> and Sirion Chaipoopirutana<sup>2</sup>

<sup>1,2</sup>Graduate School of Business, Assumption University

Email: haohan\_yao@qq.com, [sirionc@gmail.com](mailto:sirionc@gmail.com)

### Abstract

Customer satisfaction surveys have become one of the most important tools in the e-service industry to find out about problems and determine how to improve online services. They are essential to e-commerce companies' success, especially online food delivery services which has grown into a huge market in China. The purpose of this study is to consider the factors that influence customer satisfaction toward food delivery online. More specifically, looking at 'Ele.me,' one of the three leading third party platforms in China where restaurants can register, it tests the influence of eight factors (app design, response time, information quality, payment system, personalization, delivery, confirmation, and app reputation) on overall customer satisfaction toward Ele.me. These eight factors represent the independent variables and customer satisfaction the dependent variable. The data was collected through an online survey of 400 respondents via a website ([www.sojump.com](http://www.sojump.com)). The respondents in this study were people with some experience using the Ele.me mobile application. The sampling procedure used non-probability and the convenience sampling techniques. The data were analyzed by bivariate linear regression and descriptive statistics were used to provide the percentage distributions, average mean and standard deviations. In addition, inferential statistics were used to test the relationship between the independent and dependent variables. The results show that all eight independent variables have a positive relationship with overall customer satisfaction. Most respondents can accept 30-45 minute delivery time. The platform should nevertheless focus on improving information quality, app reputation, and patronization. It could set up an inspection and reporting system to guarantee the veracity of the restaurant information in their app. It could for example send a person to each cooperative restaurant at least semi-annually and set a mark. The platform should also reward customers who disclose problems with the cooperative restaurants and provide effective evidence.

**Keywords:** Customer satisfaction, online food delivery mobile application, third party platforms in China

### Introduction

Customer satisfaction survey obtained widespread attention on the world for a long time, especially in the e-service industry, customer satisfaction surveys have become one of the most important tool to find out the problems of the enterprise and the direction of improve online services (Zhou, Dai, and Zhang, 2007). To understand the customer satisfaction is essential to all the e-commerce companies' success Liu et al. (2008). The earliest literature studying customer satisfaction was applied by Cardozo (1965), indicated that improves customer satisfaction will make customers have repurchase behavior and would not switch to other products. Swaid and Wigand (2007), indicated that customer satisfaction has become one of increasingly important issues for e-commerce transactions, customers will only return, when they are satisfied with their online shopping experience (Kim and Stoel, 2004).

Based on prior studies, there are many factors may inferencing customer satisfaction toward e-business (mobile applications), such as app design, response time, information quality, personalization, delivery, payment system, confirmation, and app reputation. With

respect to the finding of Liu et al. (2008), delivery plays a main role in Chinese online customer satisfaction. They also find that design a good online store interface (website design), provides clear and understandable information (information quality), and provide convenient and safe payment methods (payment system) can help to improve the customer's degree of satisfaction. Similarly, Gao (2013) found that mobile website stores' information quality, response time, visual appeal and navigation has a strong influence on customers satisfaction. Moreover, Swaid and Wigand (2007) find that information quality, and personalization are the key dimensions of e-service quality that may improve online shopping customer satisfaction. Furthermore, Kim (2012) stated that fulfillment of consumer's expectation (confirmation) is essential to an online store improves its consumer's satisfaction. In addition, Kim, Jin, and Jin (2008) asserted that firm reputation is a key factor has influence on consumers' evaluation of online stores' satisfaction.

In recent years, online food delivery service has grown into a huge market in China. According to a November 2015 report by Analysys.cn, the overall

market size of the Chinese online food delivery service market is going to be 6.43 billion Yuan, and there are three leading third party platforms in the market, which are the “Ele.me” (33.6% market share), “Meituan food delivery” (33.5% market share), “Baidu food delivery” (18.8% market share) and the rest 14.1% market share is belonged to other platforms (<http://www.analysys.cn/yjgd/15082.shtml> accessed on 23 Dec. 2015).

The “Ele.me” was set up at the April 2009. It is an open platform used to assist cooperative restaurants connect with customers. Restaurants could register on the platform by setting their name, address, menu, service scope and time. After the platform confirm, the users could find the restaurant in the platform (the user’s current or setting location must be within the service scope of restaurants) and order food delivery from the appeals restaurants (the food’s package and delivery are handled by the “Ele.me” delivery team).

As a service company, the “Ele.me” platform should built a long-term relationship to their users. The platform should invest in any related factors that may influence the customer satisfaction to guarantee customers are satisfied all of their services in every single time and this activity can make the platform obtain more customer retention and gain more profits. So the objective of this study is to test the influences of eight factors (app design, response time, information quality, payment system, personalization, delivery, confirmation, and app reputation) on overall customer satisfaction toward the online food delivery mobile application “Ele.me” in China.

## **Theory**

### *App design*

App design is defined as the design of an attractive and efficient interface (mobile application) for a business objective (Dinner, Van Heerde, and Neslin 2015; Zhao and Balagué, 2015). On the other hand, Siekpe (2003) identified that website design is designs website interfaces that meet customer expectations in executing online shopping tasks. Guo, Ling, and Liu (2012) stated that website design is to make a website has a good navigation capability and visual appeal. Liu et al., (2008) also indicated that a website is the page design about layouts, color matches, and content. Lee and Lin (2005), added that website design is the customer perception of degree of user friendliness in using an online store.

### *Response time*

According to Gao (2013), the definition of response time is the speed with which the website responds to requests or performs particular functions. Loiacono, Watson, and Goodhue (2002) indicated that response time is the time to get a response after a request or an interaction with a website. Kim and Lim (2001) defined response speed as speed of transmission toward a website. Konradt, Lückel, and Ellwart (2012) stated that response time is a performance criterion which

determines the user-system interaction, it can be defined as customer’s perceived time between requesting a page and receiving it or the time needed for the server to process a request and send a response.

### *Information quality*

Liu et al. (2008) expounded that information quality is the ability of pictures and descriptions provided by a website to describe quality and functionality of a commodity and attract customer decision to buy. Hsu and Lee (2014) indicated that information quality is defined as the usefulness and comprehensibility of web content or information. In the similar case, Gao (2013) defined that information quality is the consumer’s evaluation of the website content. Swaid and Wigand (2007) asserted that information quality is the extent to which the website offers high content quality. Koivumaki (2001) found that, pictures can attract more attention and purchase intention than the words descriptions.

### *Personalization*

According to Lee and Lin (2005), the personalization can be defined as customer perception of the degree to which an online store provides differentiated services to satisfy specific individual needs. Swaid and Wigand (2007) stated that personalization is the level of online stores (apps) provides individualized attention to their user, include provide personalization recommendation and provide personalized product to the customers and Zeithaml et al. (2000), advocated that individualized attention is constructed by empathy in the context of the online store contents.

### *Delivery*

According to Liu et al. (2008), delivery is the most important process for the online sales in China, it is the process that a company pack, distribute and deliver goods to their consumers. Lee and Joshi (2007) defined that delivery performance is the how fast and how safely the goods/services would be delivered with a reasonable service charge. In order to determine the delivery performance to a specific company, three basic requirements should be considered in the analysis, which are timely delivery, reliable delivery, package safety (Alam and Yasin. 2010).

### *Payment system*

Liu et al. (2008) defined that payment system is a system provide various convenient and safe payment methods for their user, which contribute to create a convenient and safe online shopping environment. Huang, Dai, and Liang (2014) advocated that payment systems are the system that customer used to pay for their product or service, it can be simply divided into traditional payments and online payment systems. Compared to traditional payments, online payment system is an electronic payment systems which have more efficiency, convenience, and flexibility.

#### *Confirmation*

According to Wang et al. (2014), confirmation is defined as consumers' perception of the congruence between expectation of transactions and its actual performance. Kim (2012) defined confirmation as the customer's evaluation of a product's or service's performance and it is the customer's judgment of the actual performance relative to a pre-purchase comparison standard like expectation. Bhattacharjee (2001) referred that customers will return lesser confirmation if higher expectation meets lower performance and if the situation is on the contrary side, customers will feedback greater confirmation.

#### *Confirmation*

According to Wang et al. (2014), confirmation is defined as consumers' perception of the congruence between expectation of transaction and its actual performance. Kim (2012) defined confirmation as the customer's evaluation of a product's or service's performance and it is the customer's judgment on the actual performance relative to a pre-purchase comparison standard like expectation. Bhattacharjee (2001) referred that customers will return lesser confirmation if higher expectation meets lower performance and if the situation is on the contrary side, customers will feedback greater confirmation.

#### *App reputation*

Kim, Jin, and Jin (2008) defined firm reputation as a collective representation of a firm's past actions and results that describes the firm's ability to satisfied customers. Mobarakabadi et al. (2013) indicated that firm reputation is perceptions of customers that how a firm look after customers and interested about their well-being. Jayasankaraprasad and Kumar (2012) stated that store reputation is the prominent attributes of particular store that were influence customer estimated and weighted the same kind of store.

#### *Overall customer satisfaction*

Customer satisfaction is a critical measure of how an enterprise satisfied customer expectations toward electronic commerce (Swaid and Wigand, 2007; Jin, and Jin, 2008; Liu et al., 2008; Kim, 2012; Gao, 2013). Overall customer satisfaction is defined as a response of feeling on specific experience and occurs at a period of time (Giese and Cote, 2000), it influences continual use intentions and behavior (Qin and Prybutok, 2009) it also can be defined as a post-purchase or after-use assessment of product quality (Kotler, 1991) and service quality (Menon and Dube, 2000).

### **Related Literature Review**

#### *App design and overall customer satisfaction*

Liu et al. (2008) stated that based on the situation of Chinese e-commerce industry, website design is one of important factor that can improve overall customer satisfaction toward online shopping, especially for information search and alternatives evaluation. Four dimensions of website design were analysis in their

study which are color combination, ease of use, website structure, and navigation. Alam and Yasin (2010) indicated that website design received the most consistent asserted as factors that influence online shopping satisfaction in their study. Dinner, Van Heerde, and Neslin (2015) asserted that app design should reflect the business objective of the mobile application, and the app design will directly influence customer satisfaction toward e-business.

#### *Information quality and overall customer satisfaction*

Swaid and Wigand (2007) asserted that information quality was evaluated from four dimensions: accuracy, timeliness, relevance and understandability. Information quality has a strong relationship with customer satisfaction and loyalty intentions. Gao (2013) indicated that a high level of information quality toward mobile websites referred to accurate, timely and relevant information which have strong relationships with the satisfaction. Yu and Hsu (2013) advocated that information quality perception and confirmation has a positive effect on the satisfaction and further on the continuance intention.

#### *Personalization and overall customer satisfaction*

Lee and Lin (2005), indicated that personalization is compose of three dimensions: individualized attention provide by the e-shop, personal thank-you notes from the e-shop, and the availability of a message area for receive customer question and feedback, it has a positive relationship with overall service quality and customer satisfaction. Swaid and Wigand (2007) indicated that personalization in the e-commerce service offers customized products and recommendations that meet customers' preferences influencing their satisfaction and intentions to repurchase. It direct influences customer satisfaction and loyalty intentions.

#### *Delivery and overall customer satisfaction*

Lee and Joshi (2007) asserted that timeliness and reliability are the most important elements of delivery performance, and delivery performance has strong relationship with customer's satisfaction. Alam and Yasin (2010) advocated that delivery performance (timely) has a significant influence on online shopping satisfaction, while the reliable of delivery they discuss on another independent variable reliability and also has a significant influence on online shopping satisfaction. Chou, Chen, and Lin (2015) stated that delivery efficiency has a direct influence on female shopping enjoyment and e-satisfaction toward a shopping website.

#### *Payment system and overall customer satisfaction*

Liu et al. (2008) stated that Chinese e-commerce are lacks of network ID authentication and online transaction credit system, while design a secure and convenient payment mechanism can improve the customers' overall satisfaction toward online store. Guo, Ling, and Liu (2012) argued that as a payment method,

the first requirement from customers is the convenience, then customers who also need the online store ensures the payment safety. Moreover, making the payment procedure easy is also important for improving customer satisfaction.

#### *Confirmation and overall customer satisfaction*

According to Oliver (1980), expectation-confirmation theory (ECT), both expectation and disconfirmation are influence on customer satisfaction and further influence on the customers' attitude and intention. This study originally appeared in the psychology and marketing literature and then derivatives to various scientific fields, especially including consumer research and information systems, among others. Bhattacharjee (2001) indicated the confirmation can, through the customers' satisfaction and perceived usefulness, influence continuance intention toward an online store's information system.

#### *App reputation and overall customer satisfaction*

Kim, Jin, and Jin (2008) defined firm reputation as a collective representation of a firm's past actions and results that it has a strong positive effect on customers' e-satisfaction. Mobarakabadi et al. (2013) stated that firm reputation is customers' perceptions toward an online business, it is significantly and positively related to customers' e-satisfaction. Abd El Salam, Shawky, and El Nah (2013) indicated that corporate image and reputation is consisted of two main components which are functional (tangible characteristics) and emotional (feelings, attitudes and beliefs). It is a critical factor in the overall evaluation of any organization, and has a positive effect on the customer satisfaction.

### **Conceptual Framework**

The conceptual framework was the model which the researcher applied in order to finding influence of independent variables towards dependent variable (Baisa and Thoyib, 2013). Based on prior studies and researcher's study orientation, nine variables were organically integrated with an integrated framework:

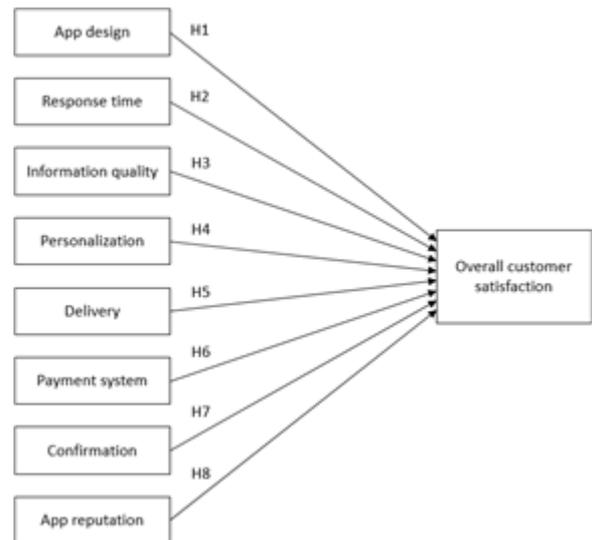


Figure 1: Conceptual framework

### **Research Hypotheses**

Based on the modified conceptual framework, eight hypotheses are applied by the researcher and shown in detail as follow:

- H1: App design of the “Ele.me” mobile application is an influence on overall customer satisfaction
- H2: Response time of the “Ele.me” mobile application is an influence on overall customer satisfaction
- H3: Information quality of the “Ele.me” mobile application is an influence on overall customer satisfaction
- H4: Personalization in the “Ele.me” mobile application is an influence on overall customer satisfaction
- H5: Delivery of food and drink by the “Ele.me” mobile application is an influence on overall customer satisfaction
- H6: Payment system of the “Ele.me” mobile application is an influence on overall customer satisfaction
- H7: Customer's confirmation of the “Ele.me” mobile application is an influence on overall customer satisfaction
- H8: App reputation of the “Ele.me” mobile application is an influence on overall customer satisfaction

### **Research Methodology**

Mingers (2001) defined research method as a structured set of activities to assist in obtained effective and reliable research results. In order to explore factors influences customer satisfaction toward the online food delivery mobile application “Ele.me” (a mobile network platform that provide take-away food and drink order and distribution service to the users from the nearby assigned restaurants by the app's unified delivery team) in China, the researcher decided to use the descriptive research method in this study. Descriptive research is a normal research method which collects and records the data from different factors and aspects of the situation, then analyzes the meaning of the data and static describing the facts of the objective (Sekaran, 2006).

The descriptive research is very convenient to use and always has specific purpose (Creswell, 2013), like describe characteristics of a specific group (potential customers), predicting their behavior, measuring their knowledge, preference, and satisfaction toward a specific product, determining the relationship between difference marketing factors, and other market forecasting (Churchill and Iacobucci, 2010; Hair, Bush, and Ortinau, 2009). Therefore, the researcher used the descriptive research method.

*Data Collection*

In this study, the primary data was collected through online survey. The researcher first uploaded the questionnaire to an online survey website (www.sojump.com), then distributed the link of the questionnaire to the users of the mobile application “Ele.me” on various online communities, online chat groups, social network sites, and other appropriate patterns to share the link to the voluntary respondents. The questionnaires used in this study were self-administered questionnaires and used a 5-point scale to test the level of agreement of nine measuring variables. The questionnaires were collected from 400 respondents and the distributing period of questionnaires was within March 2016

**Summary of the Findings**

Table 1: Summary of the findings in personal data

Variables	Frequency	Percentage
Gender		
- Female	248	62.0%
Age		
- 20~29 years old	237	59.3%
Education level		
- Bachelor degree	277	69.3%
Employment status		
- Full time	185	46.3%

As the result was shows in Table 1, the researcher found that within the 400 respondents in this study, the most of respondents are female (62%), the majority of respondents are between 20~29 years old (59.3%). Additionally, more than two third of respondents are bachelor degree (69.3%) and most of respondents are full time employee (46.3%).

Table 2: Summary of the findings in general information

Variables	Frequency	Percentage
How long can you accept for the delivery until plan to cancel the order?		
- 30~45 minute	217	54.3%
If the “Ele.me” have no sales promotion	171	42.8%

now, would you like to use it?  
- Yes

As the result was shows in Table 2, the researcher found that within the 400 respondents in this study, the most of respondents can accept 30~45 minute delivery time (54.3%). Also the majority of respondents would like use the “Ele.me” application without sales promotion (42.8%).

Table 3: Summary of the findings in hypotheses testing

Hypotheses	Level of Significance	Beta Coefficient	Result
H1: App design of the “Ele.me” mobile application is an influence on overall customer satisfaction	0.000	0.789	Supported
H2: Response time of the “Ele.me” mobile application is an influence on overall customer satisfaction	0.000	0.648	Supported
H3: Information quality of the “Ele.me” mobile application is an influence overall customer satisfaction	0.000	0.799	Supported
H4: Personalization in the “Ele.me” mobile application is an influence on overall customer satisfaction	0.000	0.794	Supported
H5: Delivery of food and drink by the “Ele.me” mobile application is an influence on overall customer satisfaction	0.000	0.707	Supported
H6: Payment system of the “Ele.me” mobile application is an influence on overall customer satisfaction	0.000	0.785	Supported
H7: Customer’s confirmation of the “Ele.me” mobile application is an influence on overall customer satisfaction	0.000	0.782	Supported
H8: App reputation of the “Ele.me” mobile application is an influence on overall customer satisfaction	0.000	0.839	Supported

### **Conclusion**

The descriptive analysis of 400 respondents' personal data showed that most of them were female, around 20~29 years old, bachelor degree and full time employee. Which means most of the potential users of the "Ele.me" mobile application in China are 20~29 years old economic independent educated women. According to a report about Neo-Generation in China ([http://www.njliaohua.com/lhd\\_1xuhi0hvu06m3qp9y5op\\_1.html](http://www.njliaohua.com/lhd_1xuhi0hvu06m3qp9y5op_1.html), accessed on 10 April 2016), the Neo-Generation (20~29 years old) in China have very significant consumer characteristics. They paid more attention to quality, they pursue fashion, they advocate personality, price is not the primary factor affect their decision, and they have very strong consumer impulse. They are the main consumer of electronic commerce, favorite on Internet media and online shopping. The report also indicated the 20~29 years old economic independent educated women are the most valuable customers. This kind of customer is willing to pay for some popular concepts, like self-image and self-development.

The descriptive analysis of 400 respondents' general information showed that most of them were willing to waiting food delivery around 30~45 minute delivery time and willing to use the "Ele.me" application without sales promotion. Which means most of the potential users of the "Ele.me" mobile application in China considered that 30~45 minute was reasonable delivery time, all services designed by the company should be under this time frame, and most of them consider the service of "Ele.me" is worth the money they paid and sales promotion still can stimulate consumes to a certain degree.

Moreover, the researcher applied bivariate linear regression analysis to test the eight hypotheses in this study. Based on the result of analysis, this research investigates that app design (H1), response time (H2), information quality (H3), personalization (H4), delivery (H5), payment system (H6), confirmation (H7), and app reputation (H8), all the eight factors applied in this study have a strong positive impact on overall customer satisfaction towards the "Ele.me" mobile application in China. Which means the increasing of each one of the eight factors, the overall customer satisfaction towards the "Ele.me" mobile application will be increasing. All the testing in this study has similar result with the previous studies.

### **Recommendations**

With the development of online food delivery market, related enterprises have to concentrate on the customer satisfaction towards their platform and service. Based on the result of this study, the researcher recommends the marketers and managers of "Ele.me" platform should focus on improving all of eight factors discusses on this study. Specially to improve the information quality, app reputation, patronization and conformation.

For improve information quality, the researcher suggests that the platform should set up an inspected and prizes reporting system to guarantee the restaurants information in their app. The platform should send a person go to each cooperative restaurant inspect and update the information at least semi-annually and set a mark after the information to notice the inspect and update activity. And the platform should prize the customers who discover the problem from cooperative restaurants and provide effective evidence.

For the app reputation, a possible solutions suggest by the researcher is set up enterprise microblogging to expose the details (images and text) of each time of field visit to the cooperative restaurant. The blog should have specific to the city's sub-page like a sub-page name "Ele.me Beijing" and expose all the details of field visit in Beijing. On the one hand, the exposed details showed the platform attitude and action to deal with food safety issue and public information allows customers to judge is one of most effective positive publicity. On the other hand, using blogs can invite the users to join the discussion, let the platform obtain the first hand feedback from their users.

For the patronization, the researcher considers that create a preference label system is a feasible solution to improve this service. The platform may provide a standardized label like "Very spicy" and "Too sweet" as well as let customer design the label and let customer select the labels to feedback their after sale evaluation. On the other side, the platform may provide corresponding labels like "Like spicy" and "Like sweet" as well as regional labels like "Sichuan people (most of them like spicy)" and "Shanghai people (most of them like sweet)" to the users and let them mark themselves. Then, the platform can easily provide the most appropriate personal recommendation to their user. For example, if a customer marked himself /herself as "Get inflamed", all the spicy food will not appear in the personal recommendation for him/her.

For the conformation, a possible solution is the platform should build an extension system to manage their cooperative restaurants. The restaurant reach a high standard should get a strong market promotion (attract more high-quality restaurants to join, improve quantity of high-quality restaurants in the platform) and the platform should help all the cooperative restaurants to reach this standard (improve quality of restaurants in the platform).

Meanwhile, the "Ele.me" marketers should focus their attentions on the Internet media, their advertisement should have fashion and personality elements, and the emphasis is to please female customers. The manager should focus on the deliveryman's management and scheduling, especially in temporary staff training. Delivery men are the "mobile billboards" of the platform, to maintain a consistent standard is very important, because public praise just is best propagandist means.

*Further Research*

Since this study has some limitation. There are some further research suggested by the researcher.

First, the researcher suggests that further study may include more platforms and make a comparative analysis to find out the similarities and differences among platforms.

Second, the researcher suggests further studies research in selected areas and in-depth study in this area.

Third, the researcher suggests that the further study may consider more possible factors influencing on overall customer satisfaction towards food delivery online.

At last, the researcher considers that it would be worth testing the factors influence on overall customer satisfaction towards food delivery online using mobile application again in the future.

### **Acknowledgements**

This thesis is dedicated to a number of extraordinary individuals who have given me their help, supports, suggestions and understanding.

My deepest gratitude goes first and foremost to Assistant Professor Dr. Sirion Chaipooirutana, my thesis advisor, for her constant encouragement and guidance. She has walked me through all the stages of the writing of this thesis, whether in the topic selection, conception, data collection, research methods and paper finalization. Without her consistent and illuminating instruction, this thesis could not have reached its present form.

Second, I would like to express my heartfelt gratitude to the rest of my thesis committee: Dr. Apichart Intravisit, Dr. Vorapot Ruckthum and Dr. Aaron Loh for valuable comments and suggestions. Without their pertinent suggestions, this thesis could not reach its depth of study. I am also greatly indebted to my grammar editor Mr. Daniel Onderdonk and Mr. Anuphong Dechartivong Na Ayudhya for their great suggestions and help with the editing of my thesis.

In addition, I owe a special debt of my friends and fellow classmate who offer me their helps and times in listening to me and helping me during the difficult course of the thesis.

Last but not least, my thanks would go to my beloved family for their loving considerations and great confidence in me all through these years. Thank you so much for letting me be myself and pursue my dreams.

### **References**

- Alam, S. S., and Yasin, N. M. (2010). An Investigation Into The Antecedents of Customer Satisfaction of Online Shopping. *Journal of Marketing Development and Competitiveness*, 5(1), 71-78.
- Bhattacharjee, A. (2001). An empirical analysis of the antecedents of electronic commerce service continuance. *Decision Support Systems*, 32(2), 201-214.
- Chou, S., Chen, C. W., and Lin, J. Y. (2015). Female online shoppers: Examining the mediating roles of e-satisfaction and e-trust on e-loyalty development. *Internet Research*, 25(4), 542-561.
- Dinner, I., Van Heerde, H. J., and Neslin, S. (2015). Creating Customer Engagement Via Mobile Apps: How App Usage Drives Purchase Behavior. *Social Science Electronic Publishing* (No. 2669817).
- Gao, X. (2013). The Influence of Mobile Website Quality on Consumer Satisfaction and Behavior. *Textiles, Merchandising and Fashion Design: Dissertations, Theses, and Student Research*. Paper 3.
- Huang, X. D., Dai, X. L., and Liang, W. Q. (2014). BulaPay: a novel web service based third-party payment system for e-commerce. *Electronic Commerce Research*, 14(4), 611-633.
- Jayasankaraprasad, C., & Kumar, P. V. V. (2012). Antecedents and consequences of customer satisfaction in food & grocery retailing: An empirical analysis. *Decision*, 39(3), 101-140.
- Kim, S. and Stoel, L. (2004), "Apparel retailers: website quality dimensions and satisfaction". *Journal of Retailing and Consumer Services*, (11) 2, 109-17.
- Kim, D. J. (2012). An investigation of the effect of online consumer trust on expectation, satisfaction, and post-expectation. *Information Systems and E-Business Management*, 10(2), 219-240.
- Kim, J., Jin, Y. P., and Jin, B. (2008). Cross-cultural examination of the relationships among firm reputation, e-satisfaction, e-trust, and e-loyalty. *International Marketing Review*, 25(3), 324-337.
- Lee, G. G., and Lin, H. F. (2005). Consumer perceptions of e-service quality in online shopping. *International Journal of Retail and Distribution Management*, 33 (2), 161-176.
- Lee, K., and Joshi, K. (2007). An empirical investigation of customer satisfaction with technology mediated service encounters in the context of online shopping. *Journal of Information Technology Management* 18(2), 18-37.
- Liu, X., He, M., Gao, F., and Xie, P. (2008). An empirical study of online shopping customer satisfaction in China: a holistic perspective. *International Journal of Retail and Distribution Management*, 36(11), 919-940.
- Swaid, S. and Wigand, R. (2007). Key Dimensions of E-commerce Service Quality and Its Relationships to Satisfaction and Loyalty. *20th Bled Conference Mergence: Merging and Emerging Technologies, Processes, and Institutions*, Bled, Slovenia 1-15.  
<http://www.analysys.cn/yjgd/15082.shtml>, accessed on 23 December 2015.
- <https://www.ele.me/support/about>, accessed on 23 December 2015.
- <http://www.sojump.com/wjx/manage/myquestionnaires.aspx>, accessed on 30 December 2015

## Customer Satisfaction Affecting Behavioral Intention to Repurchase at Fast Food Restaurant in Bangkok, Thailand

Pronthip Praiswan and Sirion Chaipoopirutana

Graduate School of Business, Assumption University

E-mail: [teenee\\_pb@hotmail.com](mailto:teenee_pb@hotmail.com)

### Abstract

The objective of this research is to study factors affecting to behavioral intention to repurchase at McDonald's in Bangkok, Thailand, while independent variables are perceive value, restaurant image, food and beverage quality, service quality, customer satisfaction and dependent variable is behavioral intention to repurchase. The data was collected by distributing questionnaires to 300 respondents at MBK Center and Siam Paragon branches in Bangkok. The sampling procedure used judgment sampling, quota sampling, and convenience sampling. When data are collected, the researcher will analyze the data by using the Statistical Package for Social Science (SPSS) software. Also the multiple regression and simple regression are used to analyze the relationship among dependent and independent variables based on hypotheses. And the researcher used descriptive statistics to provide percentage and frequency, which is usually used to analyze demographic factors. The result of this research shows that all most of independent variables are influenced on behavioral intention to repurchase, but three two sub-variable are not influenced on behavioral intention to repurchase, which are assurance and employee knowledge and responsiveness of service delivery in term of service quality.

**Keywords:** Repurchase intention, Food service, Customer satisfaction

### Introduction

At the present, fast food market in Thailand grow up rapidly and also have a lot traders who stay in the same markets, which the markets become more competitive. While the customer's expectation rises up day by day with more similar products and service so the companies have to make customer satisfy with their service and products. The companies have to understand the specific needs of customers and try to fulfill requirement of customers as well. Customers' satisfaction is a very important factor especially in the service sector. It can be defined as the valuation based on experience that the customers get after used services or products which compare with the expectation (Olorunniwo et al., 2006). According to Gilbert et al. (2006), also mentioned that the customers' satisfaction is viewed as influencing repurchase intention and behavior, which in turn and leads to the company's future revenue and profit. The companies try to build good relationship with the customers, improving their service quality in an effort to attract customers so that it could be created customers' repurchase intention.

In this research, light is put on the McDonald's and the main focus is on the MBK Center branch and Siam Paragon branch. There are four independent variables, which directly affect to customers satisfaction and lead to the dependent variable of behavior intention to

repurchase. These are: perceived value, image restaurant, food and beverage quality and service quality.

### Objective of study

The objective of this research is to study factors which include perceive value, restaurant image, food and beverage quality, service quality and customer satisfaction towards behavioral intention to repurchase at McDonald's in Bangkok, Thailand. This research studies the relationship among these factors and customer satisfaction that will lead to customer intention to repurchase at McDonald's.

1. To analyze the influence of perceived value, restaurant image, food and beverage quality on customer satisfaction.
2. To analyze the influence of service quality in term of assurance and employee knowledge, healthy and attractive food, empathy, tangibles, responsiveness and reliability on customer satisfaction.
3. To analyze the impact of restaurant image on perceived value.
4. To analyze the impact of customer satisfaction on behavioral intentions.

### Literature Review Theory

#### *Service quality*

Parasuraman (1998) defined service quality as the difference between customer anticipations and perceptions of service. When a restaurant provides

service quality that meets or exceeds customers' anticipations, which the possible outcome will be customer satisfaction and loyalty (Schiffman et al., 2004). The quality of service is considered as a major driver in improving the performance of restaurants (Cronin and Taylor, 1992; Sureshchandar et al., 2002).

**Customer Satisfaction**  
Kotler and Keller (2009) mentioned that customer satisfaction can be a customer's feelings of pleasure or disappointment, which results from comparing a product's perceived performance or outcome with their expectations. Schiffman and Karun (2004) also mentioned that customer satisfaction is the individual's perception of the performance of the services or products, which association with his or her expectations.

**Behavior Intention to Repurchase**  
Fornell (1992) also mentioned that repurchase intention as the customers' behavior when services or products that can satisfy customers and convince them to come back to repurchase or revisit. The repurchase has two forms, the first form is the intention to re-buy (repurchase), and the second form is the intention to engage in positive word of mouth and recommendation (Zeithaml et al., 1996).

**Perceived Value**

Zeithaml et al. (2002) defined perceived value as the result that customer get and the customer has compared between perceived overall benefits and price that the customer has paid. Many researches showed that if customers receive trustworthy perceived value in the process of product or service consumption, it will create a good brand image, loyalty, profit, repurchase intention and competitiveness to a business (Treacy and Wiersema, 1993; Heskett et al., 1994; Ravald and Gronroos, 1996).

**Restaurant Image**

Nguyen and Leblance (2001) described that restaurant image is associated to different behavior and physical attributes of the restaurant, which includes restaurant name, service quality, customers' impression, variety of products and services and experience during service interaction from service providers. Swinyard (1977) found that favorable customers' evaluations of the restaurant's image attributes will lead them to become repeat customers; unfavorable evaluations would likely yield a no repeat response.

**Food and Beverage Quality**

Bastic and Gojic (2012) conceptualized that the quality of food and beverage are related to customers have anticipation of receiving freshly- prepared, high quality, nutritious foods, good ingredients and beverages than unnatural or pre-prepared food. The food presentation and taste are the most significant for food quality factors (Namkung and Jang, 2008). The fresh ingredients is also an important factor that affects customers to revisit or repurchase the restaurants (Brumback, 1998).

## **Review of related literature**

*The Related Review of Literature: Perceived Value and Customer Satisfaction*

Andreassen and Lindestad (1998) mentioned that perceived value was certainly associated with customer satisfaction in service industries. Patterson and Spreng (1997) also point that perceived value has a direct relationship with customer satisfaction. Perceived value quality and customer perceived value were the most prominent precursors of customer satisfaction through four service industries consist of au-service, hairstylist, dental services and restaurant (McDougall and Levesque, 2000).

*The Related Review of Literature: Customer Satisfaction and Behavioral Intentions*

Berkman and Gilson (1986) mentioned that customer repeat purchase, revisit to restaurants and word-of-mouth publicity are related to customers' satisfaction with an initial purchase which satisfied customers help the company by providing word-of-mouth advertising at no cost (Knutson, 1988). Kim et al, (2009) also mentioned that the customer satisfaction as one of important factors and it was positively related to positive word of mouth and return intention, which confirmation by foodservice dining operation at the university.

*The Related Review of Literature: Restaurant Image, Perceived Value and Customer Satisfaction*

Cretu and Brodie (2007) discovered that the impact of restaurant image and restaurant reputation on customers' perception of product and service quality, customer loyalty and perceived value in this business and disclosed that restaurant image had a positive influence on perceived value. According to Aaker (1991), the positive restaurant image can increase customers' satisfaction in usage and then customers will recommend it to others.

*The Related Review of Literature: Service Quality and Customer Satisfaction*

Parasuraman et al. (1998) defined service quality as the degree of difference between customers' expectation and perceived performance. Although it is stated that other factors such as price and product quality can affect customer satisfaction (Zeithaml et al. 2006). When a restaurant can provide service quality that meets or exceeds customers' anticipations, which the probable outcome will be customer satisfaction and loyalty (Schiffman et al., 2012).

*The Related Review of Literature: Food and Beverage Quality and Customer Satisfaction*

Brumback (1998) and Soriano (2002) mentioned that the quality of food and beverage and fresh ingredients which are the important reason for customer to revisit or repurchase to a restaurant. It has 3 reasons that affect to the customers choose their favorite restaurants, the first reason is food and beverage quality, the second reason is service quality and the third reason is atmosphere. The higher level of food and beverage

quality that lead to greater level of customers' satisfaction (Andaleeb and Conway, 2006).

### Materials and Methods

#### Research Hypothesis

In this study, there are 4 hypotheses as follows.

H1<sub>a</sub>: Perceived value, restaurant image and food and beverage have influence on customer satisfaction

H2<sub>a</sub>: Assurance and employee knowledge, healthy and attractive food, empathy, tangibles, responsiveness of service delivery and reliability have influence on customer satisfaction.

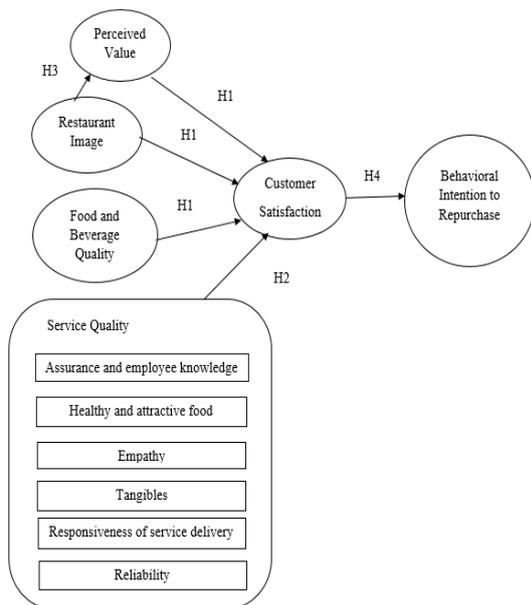
H3<sub>a</sub>: Restaurant image has impact on perceived value.

H4<sub>a</sub>: Customer satisfaction has impact on behavioral intentions to repurchase.

#### Conceptual Framework

The research designed the conceptual framework based on previous theoretical frameworks. It is adapted from previous studies from Ryu et al. (2012), Qin and Prybutok (2009) and Giritlioglu et al. (2014).

Figure 1: The research model of the relationship among perceived value, restaurant image, food and beverage quality, service quality and customer satisfaction towards behavioral intention to repurchase at McDonald's in Bangkok, Thailand.



This framework represents behavioral intention to repurchase as a dependent factor that can be influenced by customer satisfaction and this framework also describes relationship among service quality, food and beverage quality, restaurant image and perceived value as independent variables.

#### Methods of Research Used

The researcher applied descriptive research to explain about a relationship among perceived value, restaurant image, food and beverage quality, service quality and customer satisfaction towards behavioral intention to repurchase at McDonald's Restaurant in Bangkok, Thailand. Zikmund (2003) mentioned descriptive research that help to find the characteristics customers and this type of research to find out the answer to who, what, when, where and how questions. The target population of this research are customers of McDonald's which the customers have to older than 18 years old and have had an experience of using service with one of two branches of McDonald's restaurant, which the researcher will distribute questionnaire to customers who are using service at two branches of McDonald's including MBK Center and Siam Paragon. The researcher has decided to conduct a sample survey of 300 people directly from Customers of McDonald's restaurant according to previous study of Comfrey and Lee (1992), which both of them recommended that the adequacy of sample size could be evaluated very approximately on the following scale: 50-very poor, 100-poor, 200-fair, 300-good, 500-very good and 1000-more excellent. Moreover, the researcher will analyze the data by using the Statistical Package for Social Science (SPSS) software, multiple regression analysis and simple regression analysis.

#### Data Collection

This research is focused on the customer satisfaction affecting behavioral intention to repurchase at McDonald's restaurant, Bangkok and the researcher was collected data by using self-administered questionnaires. The questionnaire has six parts with 55 questions. The researcher was distributed 300 sets of the questionnaire to customers at each of two branches composed of MBK Center and Siam Paragon and it was planned to distribute the questionnaires during 15<sup>th</sup> October to 17<sup>th</sup> November, 2015. For convenience, the researcher waited outside the McDonald's restaurant until the customer came out from the McDonald's restaurant and the respondents were selected by using screening questions to verify that they were the target population.

#### Results and Discussion

The main objective of this research is to study the factors that influencing on customer satisfaction toward behavioral intention to repurchase at McDonald's restaurant in Bangkok between other dependent variable including perceived value, restaurant image, food and beverage quality and service quality. This researcher collected the data from McDonald's purchaser at Siam Paragon and MBK Center branches.

#### Summary of results from demographic analysis

The demographic used in this research are gender, age, education, income and marital status. And result shows that the highest percentage of gender in this

research is male (61.3%) which means most of the customers of McDonald's restaurant are male. Moreover, 194 out of 300 respondent's age was between 18-25 years old (64.7%). The highest percentage of education level was Bachelor degree in 219 respondents or 73%. For income level, 127 out of 300 respondents are 10,000-25,000 bath (42.3%). And the majority of marital status was single in 262 respondents or 87.3%.

#### **Summary of result from hypothesis testing**

Hypothesis 1 tested the influence of perceived value, restaurant image, food and beverage quality on customer satisfaction. The result showed that multiple regression's Beta value of perceived value was 0.235, Beta value of restaurant image was 0.193 and Beta value of food and beverage quality was 0.375. And the result also showed that perceived value was sig. at 0.001, the restaurant image was sig. at 0.008 and the food and beverage quality was sig. at 0.000 which less than 0.05. It means that all of the independent variables include perceived value, restaurant image, food and beverage quality are influenced on customer satisfaction. The findings from this result matched with theory and previous of Namkung and Jang (2007) who found that the food and beverage quality is the most important factor affecting the restaurant image, which in turn affects customer perceived value, customer satisfaction, and behavioral intentions.

Hypothesis 2 tested the influence of service quality in terms of assurance and employee knowledge, healthy and attractive food, empathy, tangibles, responsiveness of service delivery and reliability on customer satisfaction. The result showed that multiple regression's Beta value of healthy and attractive food was 0.149, Beta value of empathy was 0.168, Beta value of tangible was 0.135, and Beta value of reliability was 0.309. And the table 5.23 also showed that both of healthy and attractive food and reliability were sig. at 0.000, the empathy was sig. at 0.014 and tangibles was sig. at 0.021 which less than 0.05. It means that healthy and attractive food, empathy, tangibles and reliability are influenced on customer satisfaction but assurance and employee knowledge, responsiveness of service delivery are not influenced by customer satisfaction, which Beta value of assurance and employee knowledge was 0.048 and significant at 0.443 ( $0.443 > 0.05$ ), Beta value of responsiveness of service delivery was 0.114 and significant at 0.083 ( $0.083 > 0.05$ ), that means the null hypothesis failed to reject for both of sub-variables. The result show that the service quality has a positive relationship with customer satisfaction, which McDonald's restaurant provides well service quality to meet expectation of their customers. The findings from this result matched with theory and previous of Qin et al. (2010) who said that there is a direct and positive relationship between service quality and customer satisfaction, which supported the result of this study.

Hypothesis 3 tested the impact of restaurant image on perceived value. As the result showed that simple regression's Beta value of restaurant image was 0.626

and significant at 0.000 which less than 0.05. It means there is a significant relationship between restaurant image and perceived value. The findings from this result matched with theory and previous of Ryu et al. (2008) who found that the restaurant image had not only a direct but also an indirect effect on perceived value and customer satisfaction in the context of fast-casual restaurant. In other words, restaurant image, derived from restaurant quality, determines customer perceived value that in turn affects satisfaction. Which supported the result of this study.

Hypothesis 4 tested the impact of customer satisfaction on behavioral intentions to repurchase. The result showed that simple regression's Beta value of customer satisfaction was 0.453 and significant at 0.000 which less than 0.05. It means there is a significant relationship between customer satisfaction and behavioral intentions to repurchase. Which the result which showed that the correlation coefficient ( $r$ ) at 0.789, it mean that there is strong positive relationship between customer satisfaction and behavioral intentions to repurchase. The result shows that customers are satisfied with McDonald's restaurant, and they will come back to McDonald's restaurant in the future for using service or buying some food and beverage. And they will recommend this restaurant to their friend and others. The findings from this result matched with theory and previous of Cronin and Taylor (1992) who mentioned that customer satisfaction has a strong and direct influence on behavioral intentions to repurchase, then a high level of satisfaction will be increased customers' intentions to repurchase, which supported the result of this study.

#### **Conclusions**

The main objective of this research was to understand the customer satisfaction affecting behavioral intention to repurchase at McDonald's restaurant, Bangkok. The factors include perceived value, restaurant image, food and beverage quality and service quality. A total of 300 respondents were used service or bought food and beverage from either one of two branches of McDonald's include Siam Paragon and MBK Center. The researcher collected the data by distributing the questionnaire and using screening question, which close-ended questions during October to November 2015.

In this research focuses on six factors of service quality which are assurance and employee knowledge, healthy and attractive food, empathy, tangibles, responsiveness of service delivery and reliability, and also perceived value, restaurant image, food and beverage quality, customer satisfaction and behavioral intention to repurchase. The demographic factors include gender, age, education level, income level and marital status. The majority of all respondents were male, aged between 18 to 25 years old, with a Bachelor degree and a monthly income between 10,000 to 25,000 Baht and most of the respondents are single. The

analysis of the data by using SPSS to do the hypothesis testing.

According to the hypothesis tested by simple regression and multiple regression analysis. And the result showed the four hypotheses – hypothesis one, four factors of hypothesis two, hypothesis three and hypothesis four was rejected. Which means that perceived value, restaurant image, food and beverage quality, healthy and attractive food, empathy, tangibles and reliability are positively related to customer satisfaction, which in turn leads to behavioral intention to repurchase. There are only assurance and employee knowledge and responsiveness of service quality which had no relationship between customer satisfaction and behavioral intention to repurchase and failed to be rejected.

From this findings, the researcher found that McDonald's should improve their service quality, food and beverage quality by offering a variety menu, using fresh ingredients to prepare food and beverage with good taste to increased customer satisfaction. In addition, McDonald's employees have ability to deal with customer and also providing quick service to customers. This can help the McDonald's create a good restaurant image to customers and gain more satisfaction of customer, which leads to more revisiting customers in the future and spread the word of mouth.

### References

- Aaker, D. (1991). *Managing Brand Equity*, Free Press, New York, NY.
- Andaleeb, S.S., and Conway, C. (2006). Customer satisfaction in the restaurant industry: an examination of the transaction-specific model. *Journal of Service Marketing*, 20(1), 3-11.
- Andreassen, T.W. and Lindestad, B. (1998). Customer loyalty and complex services: the impact of corporate image on quality, customer satisfaction and loyalty for customers with varying degrees of service expertise. *International Journal of Service Industry Management*. 9(1), 7-23.
- Bastic, M. and Gojcic, S. (2012), Measurement scale for eco-component of hotel service quality, *International Journal of Hospitality Management*, 31(3), 1012-1020.
- Berkman, HW and Gilson, C. (1986). *Consumer behaviour. Concepts and strategies*. 3rd ed. Boston. Kent.
- Brumback, N. (1998). *Inn Style. Restaurant Business*, 97( 23), 47-48.
- Comfrey, A. L. and Lee, H.B. (1992). *A First course in factor analysis*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Cretu, A.E. and Brodie, R.J. (2007), The influence of brand image and company reputation where manufacturers market to small firms: a customer value perspective, *Industrial Marketing Management*, 36 (2), 230-40.
- Cronin, J.J. and Taylor, S.A. (1992), Measuring service quality: a reexamination and extension, *Journal of Marketing*, 56(3), 55-68.
- Fornell, C. (1992). A national customer satisfaction barometer: the Swedish experience. *Journal of Marketing*, 56, 6-21.
- Gilbert, G.R. and Veloutsou, C. (2006), A cross-industry comparison of customer satisfaction, *The Journal of Services Marketing*, 20(5), 298-308.
- Giritlioglu I., Jones E., and Avcikurt C. (2014). Measuring food and beverage service Quality in spa hotels. *Journal of contemporary hospitality management*, 26 (2), 183-204.
- Heskett, Jam L., Thomas O. Jones, Gary W. Loveman, W. Earl Sasser, Jr., Leonard A.Schlesinger (1994), *Putting the Service-Profit Chain to Work*, *Harvard Business Review* March-April 72(2), 164-174.
- Kim, W.G., Ng, C.Y.N. and Kim, Y.S. (2009), Influence of international DINESERV on customer satisfaction, return intention, and word-of-mouth, *International Journal of Hospitality Management*, 28(1), 10-17.
- Knutson, B. (1988). Frequent travellers: Making them happy and bringing them back. *The Cornell Hotel and Restaurant Administration Quarterly* 29 (1): 83–87.
- Kotler, P. and Keller, K. L. (2009). *Marketing management (13th end)*. New Jersey: Pearson Education Inc, Upper Saddle River.
- McDougall, G.H.G. and Levesque, T. (2000), Customer satisfaction with services: putting perceived value into the equation, *Journal of Services Marketing*, 14(5),392-410.
- Namkung, Y. and Jang, S. (2007), Does food quality really matter in restaurant? Its impact on customer satisfaction and behavioral intentions, *Journal of Hospitality and Tourism Research*, 31(3), 387-410.
- Namkung, Y. and Jang, S. (2008), Are highly satisfied restaurant customers really different? A quality perception perspective, *International Journal of Contemporary Hospitality Management*, 20(2), 142-55.
- Nguyen, N., and Leblance, G. (2001). Corporate Image and Corporate Reputation in Customers' Retention Decisions in Services. *Journal of Retailing and Consumer Service*, 8, 227-36.
- Olorunniwo, F. and Hsu, M.K. (2006), A typology analysis of service quality, customer satisfaction and behavioral intentions in

- mass services, *Managing Service Quality*, 16(2), 106-23.
- Parasuraman, A., Zeithaml, V.A., and Berry, L.L. (1988). SERVQUAL: a multiple-item scale for measuring customer perceptions of service quality. *Journal of Retailing*, 64(2), 12-40.
- Patterson, P.G. and Spreng, R.A. (1997), Modeling the relationship between perceived value, satisfaction and repurchase intentions in a business-to-business, services context: an empirical examination, *International Journal of Service Industry Management*, 8 (5), 414-34.
- Qin H., and Prybutok R.V. (2009). Service quality, customer satisfaction, and behavioral intentions in fast-food restaurants. *Journal of quality and service sciences*, 1 (1), 78-95.
- Qin J, Li R, Raes J, Arumugam M, Burgdorf KS, Manichanh C, Nielsen T, Pons N, Levenez F, Yamada T, et al. (2010). A human gut microbial gene catalogue established by metagenomic sequencing. *Nature* 464: 59–65.
- Ravald A. and Grönroos C. (1996), The value concept and relationship marketing, *European Journal of Marketing*, 30(2), 19-30.
- Ryu, K. and Jang, S. (2008), DINESCAPE: a scale for customers' perception of dining environments, *Journal of Foodservice Business Research*, 11(1), 2-22.
- Ryu K., Lee H.R., and Gon Kim W. (2012). The quality of the physical environment, food, and service on restaurant image, customer perceived value, customer satisfaction, and behavioral intentions. *Journal of Contemporary Hospitality Management*, 24 (2), 200-223.
- Soriano, D. (2002). Customers' expectations factors in restaurants: The situation in Spain. *International Journal of Quality & Reliability Management*, 19(8/9), 1055 – 1067.
- Schiffman, L. G. and Lazar Kanuk, L. (2004), *Consumer Behaviour*. 8th edition. New Jersey Pearson Education Inc, Upper Saddle River Titus.
- Swinyard, W. (1977). Market Segmentation in Retail Service Industries: A multi attribute Approach. *Journal of Retailing*, 53(spring), 27-34, 92.
- Sureshachandar, G.S., Rajendarn, C., and Anantharaman, R.N. (2002). The relationship between service quality and customer satisfaction- a factor specific approach. *Journal of Service Marketing*, 16(4), 363-379.
- Treacy, M. and Wiersema, F. (1993), Customer intimacy and other value disciplines, *Harvard Business Review*, January-February, pp. 84-93.
- Zeithaml, V.A., Berry, L.L. and Parasuraman, A. (1996), The behavioral consequences of service quality, *Journal of Marketing*, 60, 31-46.
- Zeithaml, V.A., A. Parasuraman, and A. Malhotra (2002), Service Quality Delivery Thought Websites: A Critical Review of Extant Knowledge, *Journal of the Academy of Marketing Science*, 30(4), 362-375.
- Zeithaml V. A., Bitner M. J., Gremler D. D. (2006). *Services marketing*, 4th edition, McGraw-Hill.
- Zikmund, W.G. (2003). *Business Research Methods* (7<sup>th</sup> ed.). Manson, OH: The Dryden Press.

## Customer Satisfaction Towards Banking Service, Thailand

Kansiri Thongkam<sup>1</sup> and Sirion Chaipooirutana<sup>2</sup>

<sup>1,2</sup> Graduate school of business, Assumption University, Thailand

### Abstract

The purpose of this study was to study about the factors that influence customer satisfaction towards the Siam Commercial Bank, Thailand. In this research, the dependent variable is the customer satisfaction, while the independent variables are perceived service quality in terms of tangible, reliability, assurance and empathy, perceived value and trust. These variables were developed as four hypotheses to identify the influencing factor. The data was collected by distributing a questionnaire to 300 respondents who have the experienced with the Siam Commercial Bank at Mega Bangna branch. The sampling procedure that applied in this study are purposive (judgment) sampling and convenience sampling.

Moreover, all the data was analyzed by using Multiple Regression Line to test each hypothesis. The descriptive statistics was used to identify mean and demographic percentage. Base on the result from Regression Coefficient, the researchers found that perceived service quality in terms of tangible, reliability and empathy were influenced on perceived value which the highest influence was empathy at the beta ( $\beta$ ) .339. For the perceived service quality in term of assurance was not influence on perceived value at sig.052>.05. Moreover, the perceived service quality in terms of tangible, reliability, assurance and empathy were influenced on customer satisfaction which the highest influence was reliability at the beta ( $\beta$ ) .369. In addition, the perceived service quality in terms of reliability, assurance an empathy were influenced on trust which empathy was the highest influence at beta ( $\beta$ ) .315. However, the perceived service quality in term of tangible was not influence on trust at sig .200>.05. Additionally, both perceived value and trust were influence on customer satisfaction which the beta ( $\beta$ ) were .439 and .507, respectively. It means that trust was highest influenced on customer satisfaction.

**Keywords:** Banking service, Customer satisfaction, Customer perceive quality

### Introduction

Customer satisfaction is one of the important factors in the service business sector which is has a relationship with the service quality (Bolton and Drew, 1991; Cronin and Taylor, 1992; Taylor and Baker, 1994; Spreng and MacKoy, 1996). Moreover, customer satisfaction is an opinion of customer to compare before and after purchasing products and services. There are many companies that emphasize on customer service and customer satisfaction in order to compete with their competitors (Reichheld and Sasser, 1990; Schlesinger and Heskett, 1991). In addition, Harrison and Ansell (2002) studied that the customer satisfaction is the key factor to increase profit for banking in Kuwait. It defined that to keeping existing customers for long term is lower expense than attracting new customers. The customer satisfaction with high quality of service can lead customer to be re-purchase and be loyalty (Hallowell, 1996). Moreover, service quality is one basic factor of the customer satisfaction (Parasuraman et al., 1994). In addition, perceived value was defined as the comparison between what the customer receive and what the customer loss (Monroe, 1990). Moreover, trust in service industry is one of important factor because it supports the customer's experience and the service quality acceptance (Zeithaml, 1991), as well as the quality of service and the customer satisfaction (Lewis

and Craven 1995; Tikkanen et al., 2000). Moreover, customer perceived quality, perceived value and satisfaction are most important factor for the company to compete the competitors (Zeithaml et al., 1996; Parasuraman et al., 1988; McDougall and Levesque, 2000). Therefore, bank can increase competitive strategy in order to maintain existing customers and attract new customers. The purpose of this study is how each factor influence on customer satisfaction which are; perceived service quality (tangible, reliability, assurance, empathy), perceived value and trust. In this study, the researchers will collect the data from the existing customers who have experience with the Siam Commercial Bank (SCB).

### Literature review

#### Customer Satisfaction

Customer satisfaction is defined as the number or percentage of total customers, who reported their experiences to a company or service, its products, or its services (ratings) exceeds specified satisfaction goals (Farris et al, 2010). According to Reichheld and Sasser (1990); Schlesinger and Heskett (1991) defined that is the customer evaluation after their purchasing the product or services. Additionally, there is the studied about Islamic banking that the customer satisfaction related to and affect to the banking performance such as

how fast the service, the characteristic of staff in order to serve customers and etc. (Haron et al., 1994).

### **Perceived Service Quality**

Arasli et al. (2005) who studied the comparison of people in the banking industry sector explain that perceived quality consists of tangible, reliability, assurance and empathy. Moreover, it is thinking about the factors that show as a certain quality level that customers are provided (Lancaster, 1971; Caruana et al., 2000). According to Caruana et al., (2000), the researcher defined the perceived service quality as the evaluation through different level of quality which comparing with the customer's expectation.

### **Perceived Value**

Perceived value can be defined that is the advantage which customers receive towards their payment (McDougall and Levesque, 2000). Perceived value was evaluated towards two dimensions from what the customer gets versus what the customer loss or sacrifice (Zeithaml, 1988).

### **Trust**

Trust is based on the persona belief towards promises, words or honesty (Morgan and Hunt, 1994). In addition, trust is belief by one person, group which acceptable by another person or group (Hosmer, 1995). Moreover, trust is the subjective belief which accept by one person with another person (Anderson and Weitz, 1990). According to Pavlou et al., (2007), the author defined that trust could be the important factor that encourage person to have relationship under the uncertain condition.

## **Related Literature Review**

### *Perceived service quality value relate to perceived value*

The high level of perceived service quality is able to increase perceive value of customer differently (Parasuraman et al., 1988). Moreover, perceived service quality can experience as both optimistic and pessimistic by customers (Jones et al., 2007). Moreover, there is relationship directly between perceived service quality and perceived value (Zeithaml et al., 1985).

### *Perceived service quality relate to customer satisfaction*

Perceived service quality is a tool in order to consider and improve banking performance. There are the relationship between perceived service quality and customer satisfaction in Turkey banking sector (Yavas et al., 1997). In addition, there are relationship between perceived service quality and customer satisfaction that influenced for considering during the past ten years (Gronroos, 1983).

### *Perceived service quality relate to trust*

The quality of service is affect directly to trust of customer in e-service (Gronroos, 2001). E-service quality is impact on e-trust such as believe, intention to repurchase (Grabner-Krauter and Kalusha, 2003).

According to Quintal and Polczynski (2010) found that perceived value influenced on revisit intention. Moreover, Zeithaml and Binter (1996), the researcher found that the negative word of mouth towards the negative performance will influence customer trust and trend to switch the product or service and affect to the company image as well. It is serious effect because word of mouth is quickly spread out to many people.

### *Perceived value relate to customer satisfaction*

Moreover, one of the important to the customer is relationship building because customer expect of good value from service (Peterson, 1995). Moreover, perceived value is the important factor which influence to satisfaction (McDougall and Levesque, 2000; Cronin et al., 2000; Dmitrovic et al., 2009). Moreover, the high level of perceived value can create for both next purchase and behaviors (Baker et al., 2002; Grewal et al., 1998). In addition, the perceived value of a product or service affects customer behavior which is the best element to forecast the competitive success.

### *Trust relate to customer satisfaction*

Trust is the rational in relationship which appear in literature of marketing (Moorman et al., 1993; Morgan and hunt, 1994). Moreover, there is a positive relationship between trust and customer satisfaction (Ganesan, 1994). In addition, trust is the most important factors influence to the customer satisfaction (Pavlou and Fygenson, 2006; Ribbink et al., 2004; Kim et al., 2009). According to Levesque and McDougall (1996), the researcher found that complaint can create the different result in term of qualitative between trust and satisfaction.

## **Materials and Methods**

The main purpose of this research is to understand how perceived service quality in term of tangible, reliability, assurance and empathy, perceived value and trust influence on customer satisfaction towards SCB Bank.

In this study, the null hypothesis and alternative hypothesis are represented by  $H_0$  and  $H_a$ , respectively. There are 4 hypotheses in this research:

- H1: Perceived service quality in terms of tangible, reliability, assurance and empathy are influenced on perceived value
- H2: Perceived service quality in terms of tangible, reliability, assurance and empathy are influenced on customer satisfaction
- H3: Perceived service quality in terms of tangible, reliability, assurance and empathy are influenced on trust
- H4: Perceived value and trust are influenced on customer satisfaction

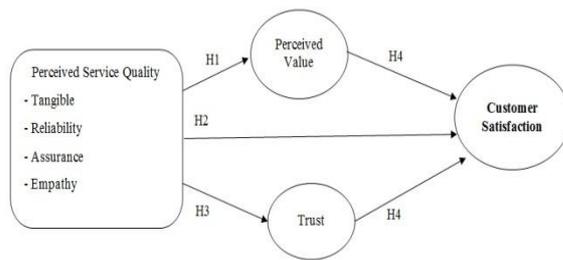


Figure 1: Conceptual Framework

In this research, the researchers decided to apply the descriptive research method in this research which can be either quantitative or qualitative data collecting such as gender, age or income. The descriptive research apply to collect data in order to explain situation and then define the data from collecting (Glass and Hopkins, 1984). Its purpose is to define questions which are; who, what, when, where and how that in this study, the researcher will focus on factors that impact to customer satisfaction (Zikmund, 2003).

The sample size in this study is 300 respondents from previous studies defined that “the suitable sample size able to roughly test as following: 50 = very poor, 100 = poor, 200 = fair, 300 = good, 500=very good, 1000 up = excellent (Comfrey and Lee, 1992). The target population are respondents age between 20-59 years old who have experience with the Siam Commercial Bank. Moreover, the researchers tested the hypothesis and analyzed each variable by using the SPSS program and multiple regression line.

The researchers used primary data which collected through questionnaires was distributed to 300 respondents. Moreover, applied two approaches which are purposive (judgment) sampling and convenience sampling. In addition, the researchers constructed 5 point Likert scale for the questionnaire to collect data from respondents which the target population of this research was customers who have experience with the Siam Commercial Bank at Mega Bangna branch.

The questionnaires with 33 questions in 5 parts were distributed over 3 weeks in October 2015 at only at Mega Bangna branch on weekend during 1PM – 5PM. The respondents’ age between at 20-59 years old. First part is the screening question. Moreover, part one is about perceived service quality has 4 sub-variables which consist of tangible, reliability, assurance and empathy. Part two is about perceived value which including 4 questions. For part three is the questions about trust. Part four is about the overall satisfaction of customers. For part five is the demographic profiles are respondents’ age (there are 8 choices), gender (there are 2 choices), and monthly income (there are 6 choices).

## Results and Discussion

In this study, the researchers studied about the factor that influence on customer satisfaction which are perceived service quality in terms of tangible, reliability,

assurance and empathy, perceived value and trust towards the Siam Commercial Bank. The researchers applied two approaches which are purposive (judgment) sampling and convenience sampling. The questionnaire with 33 questions in 5 parts was distributed to 300 respondents who have experience with the Siam Commercial Bank at Mega Bangna branch.

The survey result showed the majority of respondent were female (59% or 177 respondents) with an age range between 26 – 30 years old (32.7% or 98 respondents) and income level of 20,001 – 30,000 baht (26% or 78 respondents), respectively. Moreover, the researchers analyzed each variable by using SPSS program and multiple regression line was applied to test each hypothesis.

The result of hypothesis one, showed that the perceived service quality in terms of tangible, reliability and empathy were influence on perceived value at the significant value of .002, .000, .000 and the beta ( $\beta$ ) were .164, .295 and .339, respectively. It means that perceived service quality in term of empathy was strong positive influence on perceived value at ( $\beta$ ) = .339. But perceived service quality in term of assurance were not influence on perceived value (.052>.05).

For the result of hypothesis two showed that perceived service quality in terms of tangible, reliability, assurance and empathy were influence on customer satisfaction at .000, .000, .009, .000 and the beta ( $\beta$ ) were .272, .369, .158, .295, respectively. It showed that perceived service quality in term of reliability was highest influence on customer satisfaction at ( $\beta$ ) = .369.

For the result of hypothesis three showed that perceived service quality in terms of reliability, assurance and empathy were influence on trust at .000, .001, .000 and the beta ( $\beta$ ) were .304, .206, .315 respectively. It means that perceived service quality in term of empathy was strongly influence on trust at ( $\beta$ ) = .315.

For the result of hypothesis four showed that perceived valued and trust were influence on customer satisfaction at .000 and the beta ( $\beta$ ) were .439 and .507 respectively. It means that trust was strongly influence on customer satisfaction at ( $\beta$ ) = .507.

## Conclusions

In this study, the researcher studied about the factors that influence on customer satisfaction which are perceived service quality in terms of tangible, reliability, assurance and empathy, perceived value and trust towards the Siam Commercial Bank. The researcher used primary data which collected through questionnaires was distributed to 300 respondents. Moreover, applied two approaches which are purposive (judgment) sampling and convenience sampling.

In addition, the researcher constructed 5 point Likert scale for the questionnaire to collect data from respondents which the target population of this research was customers who have experience with the Siam Commercial Bank at Mega Bangna branch. The

questionnaires with 33 questions in 5 parts were distributed over 3 weeks in October 2015 at only at Mega Bangna branch on weekend during 1PM – 5PM. The respondents' age between at 20-59 years old.

First part is the screening question. Moreover, part one is about perceived service quality has 4 sub-variables which consist of tangible, reliability, assurance and empathy. Part two is about perceived value which including 4 questions. For part three is the questions about trust. Part four is about the overall satisfaction of customers. For part five is the demographic profiles are respondents' age (there are 8 choices), gender (there are 2 choices), and monthly income (there are 6 choices).

The survey result showed the majority of respondent were female (59% or 177 respondents) with an age range between 26 – 30 years old (32.7% or 98 respondents) and income level of 20,001 – 30,000 baht (26% or 78 respondents), respectively.

Moreover, the researcher analyzed each variable by using SPSS program and multiple regression line was applied to test each hypothesis. The result of hypothesis one, showed that the perceived service quality in terms of tangible, reliability and empathy were influence on perceived value. However, perceived service quality in term of assurance was no influence on perceived value. For the hypothesis two, the result showed that perceived service quality in terms of tangible, reliability, assurance and empathy were influence on customer satisfaction. Moreover, for the hypothesis three, the result showed that perceived service quality in terms of reliability, assurance and empathy were influence on trust while the perceived service quality in term of quality in term of tangible was not influence on trust. For hypothesis four, the result showed that perceived value and trust were influence on customer satisfaction.

### **References**

- Albert Caruana Arthur H. Money Pierre R. Berthon, (2000), "Service quality and satisfaction – the moderating role of value", *European Journal of Marketing*, Vol. 34 (11/12), 1338 – 1353.
- Anderson, J. C. and J. A. Narus. (1990). "A Model of Distributor Firm and Manufacturer Firm Working Partnerships." *Journal of Marketing* 54 (January): 42-58.
- Ansell, J., and Harrison, T. (2002). Customer Retention in the Insurance Industry: Using Survival Analysis to Predict Cross-selling Opportunities. *Journal of Financial Services Marketing*, 6, 229-239.
- Arasli H., Mehtap-Smadi S., and Katircioglu S. T., (2005), "Customer Service Quality in the Greek Cypriot Banking Industry". *Managing Service Quality*. Vol. 15 (1), 41-576.
- Arasli, H, Turan Katircioglu, S., Mehtap-Smadi, S. (2005), "A comparison of service quality in the banking industry: Some evidence from Turkish – and Greek – speaking areas in Cyprus", *International Journal of Bank Marketing*, Vol. 23 (7), 508-526.
- Baker, J., Parasuraman, A., Grewal, D., Voss, G.B. (2002), "The Influence of Multiple Store Environment Cues on Perceived Merchandise Value and Patronage Intentions", *Journal of Marketing*, Vol. 66, pp. 120-141.
- Bolton, R.N. and Drew, J.H. (1991a), "A longitudinal analysis of the impact of service changes on consumer attitudes", *Journal of Marketing*, No. 55, January, 1-9.
- Bolton, R.N. and Drew, J.H. (1991b), "A multistage model of customers' assessments of service quality and value", *Journal of Consumer Research*, No. 17, March, 375-84.
- Comfrey, A.L., and Lee, H. B. (1992). *A First Course in Factor Analysis*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Cronin, J. J., Brady, M. K. and Hult, G. T. (2000), Assessing the Effects of Quality, Value, and Customer Satisfaction on Consumer Behavioral Intentions in Service Environments. *Journal of Retailing*, 76 (2): 193-218.
- Cronin, J.J. and Taylor, S.A. (1992), "Measuring service quality: a re-examination and extension", *Journal of Marketing*, No. 56, July, 55-68.
- Dmitrovič, T., Cvelbar, L. K., Kolar, T., Brenčič, M. M., Ograjenše, I. & Žabkar, V. (2009). Conceptualizing tourist satisfaction at the destination level. *International Journal of Culture, Tourism and Hospitality Research*, 3(2), 116-126.
- Farris, Paul W.; Neil T. Bendle; Phillip E. Pfeifer; David J. Reibstein (2010). *Marketing Metrics: The Definitive Guide to Measuring Marketing Performance*. Upper Saddle River, New Jersey: Pearson Education, Inc.
- Ganesan S. (1994), "Determinants of long-term orientation in buyer-seller relationship", *Journal of Marketing*, vol.58 (2) April, 1-19.
- Glass, G. V., and Hopkins, K. D. (1984). *Statistical Methods in Education and Psychology* (2nd ed.). Englewood Cliffs, N. J.: Prentice-Hall.
- Grabner-Kräuter, Sonja and Ewald A. Kalusha (2003), "Empirical Research in On-line Trust: A Review and Critical Assessment," *International Journal of Human-Computer Studies*, 58 (6), 783-812.
- Grewal, D., Krishnan, R., Backer, J., Borin, N. (1998), "The Effects of Store Name, Brand Name and Price Discount on Consumers Evaluations and Purchase Intentions", *Journal of Retailing*, Vol. 74 (3), 331-352.
- Grönroos C, (1983), "Strategic management and marketing in the service sector", Boston: Marketing Science Institute, Chapter 4.

- Grönroos C, (2001), "The perceived service quality concept – a mistake?", *Managing Service Quality: An International Journal*, Vol. 11 (3), 150 – 152.
- Haron, S, Ahmad, N and Planisek, SL. (1994). Bank patronage factors of Muslim and non-Muslim customers. *International Journal of Bank Marketing*, 12 (1), 32-40.
- Hosmer, L. T. (1995). Trust: the connecting link between organizational theory and philosophical ethics. *Academy of Management Review*, 20: 379-403.
- Jones, R.N., P. Dettmann, G. Park, M. Rogers and T. White, (2007) : The relationship between adaptation and mitigation in managing climate change risks: a regional approach. *Mitig. Adapt. Strat. Glob. Change*, 12, 685–712.
- Kim, D.J., Ferrin, D.L. and Rao, H.R. (2009), "Trust and satisfaction, two stepping stones for successful e-commerce relationships: a longitudinal exploration", *Information Systems Research*, Vol. 20 (2), 237-57.
- Lancaster, K. (1971), *Consumer Demand: A New Approach*, Columbia University Press, New York, NY.
- Lewis, B.R. and Craven, P. (1995), "The role of customer service in buyer-seller relationships: evidence from the industrial gases market, interaction, relationships and networks", *Proceedings of the 11th IMP International Conference*, September 7-9th, Manchester, 762-86.
- McDougall, G. H. G. and Levesque, T. (2000). Customer satisfaction with services: putting perceived value into the equation. *Journal of Services Marketing*, 14(5), 393-410.
- Monroe K (1990). *Pricing: making profitable decisions*. McGraw-Hill.
- Moorman, C., R. Deshpande and G. Zaltman (1993), Factors Affecting Trust in Market Research Relationships, *Journal of Marketing*, 57 (January), 81-101.
- Morgan, R. and Hunt, S. (1994). "The commitment-trust theory of relationship marketing". *Journal of Marketing*. Vol. 58 No 3, pp. 20-38.
- Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1988), "SERVQUAL: a multiple-item scale for measuring consumer perceptions of service quality", *Journal of Retailing*, Spring, pp. 12-40
- Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1994), "Alternative scales for measuring service quality: a comparative assessment based on psychometric and diagnostic criteria", *Journal of Retailing*, Vol. 70 (3), 201-30.
- Pavlou, P.A. and Fygenson, M. (2006), "Understanding and predicting electronic commerce adoption: an extension of the theory of planned behavior", *MIS Quarterly*, Vol. 30 (1), 115-43.
- Pavlou, P.A., Liang, H., and Xue, Y. (2007). "Understanding and Mitigating Uncertainty in Online Buyer-Seller Relationships: A Principal Agent Perspective," *MIS Quarterly*, 31, 1, 105-136.
- Peterson. Robert A, (1995). "Relationship Marketing and the Consumer." *Journal of the Academy of Marketing Science*. 23 (4). 278-81.
- Reichheld, F.F. and Sasser, W.E. Jr (1990), "Zero defections: quality comes to services", *Harvard Business Review*, September-October, 105-11.
- Ribbink, D., Van Riel, A.C.R., Liljander, V. and Streukens, S. (2004), "Comfort your online customer: quality, trust, and loyalty on the internet", *Managing Service Quality*, Vol. 14 (6), 446-56.
- Roger Hallowell, (1996), "The relationships of customer satisfaction, customer loyalty, and profitability: an empirical study", *International Journal of Service Industry Management*, Vol. 7 (4), 27 – 42.
- Schlesinger, L.A. and Heskett, J.L. (1991), "Breaking the cycle of failure in services", *Sloan Management Review*, Spring, 17-28.
- Spreng, R.A. and Mackoy, R.D. (1996), "An empirical examination of a model of perceived service quality and satisfaction", *Journal of Retailing*, Vol. 72 (2), 201-14.
- Taylor, S.A. and Baker, T.L. (1994), "An assessment of the relationship between service quality and customer satisfaction in the formation of consumers' purchase intentions", *Journal of Retailing*, Vol. 70 (2), 163-78.
- Terrence Levesque Gordon H.G. McDougall, (1996), "Determinants of customer satisfaction in retail banking", *International Journal of Bank Marketing*, Vol. 14 (7), 12 – 20.
- Tikkanen, H., Alajoutsija'rvi, K. and Ta'hinen, J. (2000), "The concept of satisfaction in industrial markets: a contextual perspective and a case study from the software industry", *Industrial Marketing Management*, Vol. 29, 373-86.
- Vanessa A. Quintal Aleksandra Polczynski, (2010), "Factors influencing tourists' revisit intentions", *Asia Pacific Journal of Marketing and Logistics*, Vol. 22 (4), 554 – 578.
- Yavas, U., Bilgin, Z. and Shemwell, D.J. (1997), "Service quality in the banking sector in an emerging economy: a consumer survey", *International Journal of Bank Marketing*, Vol. 15 (6), 217-23.
- Zeithaml, V., Berry, L. and Parasuraman, A. (1991), "Understanding of customer expectations of service", *Sloan Management Review*, Vol. 32 (3), 42.
- Zeithaml, V. A., Berry, L. L. and Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing*, 60(April), 31-46.

**The 4<sup>th</sup> International Graduate Research Conference**  
*Assumption University of Thailand*

---

Zeithaml, V.A. and Bitner, M.J. (1996), *Services Marketing*, McGraw-Hill, New York, NY.

Zeithaml V. A., Parasuraman, A., Berry L. L., (1985),  
A conceptual model of services quality and its  
implication for future research, *Journal of  
Marketing*, Vol. 49 (4), 41-50.

Zeithaml, V.A. (1988), "SERVQUAL: a multiple-item  
scale for measuring consumer perceptions of  
service quality", *Journal of Retailing*, Spring,  
pp. 12-40

Zikmund, W.G. (2003) *Business Research Methods*. 7th  
Edition, Thomson South Western, Ohio.

## Exploring Factors Associated With Bangkokians' Purchase Intention: A Case Study Of Non-Preservative Eye Drop Products In Bangkok

Nuttaporn Chaoviriyakul<sup>1</sup>, Kittikorn Dowpiset<sup>2</sup> and Rawin Vongurai<sup>3</sup>

<sup>1,2,3</sup> Graduate School of Business, Assumption University, Thailand

Corresponding Author: [g5729155@au.edu](mailto:g5729155@au.edu), [kdowpiset@gmail.com](mailto:kdowpiset@gmail.com), [rawinv@au.edu](mailto:rawinv@au.edu)

### Abstract

Customer lifestyle is changing Technology makes people use more mobile phones, computers, and tablets to do work and communicate with each other. The use of these increases rapidly and causes dry eye symptoms as an eye disease. Basically people would treat symptoms by seeing a pharmacist in drugstore near their homes or work places. The first choice in treating dry eye symptoms is by using artificial tear eye drop products. There are varieties of eye drop products in the market. Which can be divided into 2 categories such as: preservative eye drop products and non-preservative products. This study is intended to explore the association of perceived quality, perceived risk, perceived value, perceived price, packaging, perceived economic situation towards customers' purchase intention. There were 400 Bangkokian respondents with equal number of gender requisition. Pearson's correlation coefficient analysis and Independent Sample T-Test were used in analysis. The result showed perceived quality, perceived risk, perceived price, packaging and perceived economic situation impacted the Bangkokians' customers' purchase intention in case study of non-preservative eye drop products. There is not difference between male and female in their purchase intention for non-preservative eye drop products.

**Keywords:** Perceived quality, Perceived price, Packaging, Gender, Non-preservative eye drops, and Purchase intention.

### Introduction

Customer lifestyle is changing customer behavior that Technology affects them with the internet through mobile application, paperless work through personal computer, social media to communicate with each other. This trend encourages people to use more technology through devices such as computers, mobile phones or tablets. This lifestyle causes dry eye symptoms (Thaihealth.or.th) and the first treatment option to relieve symptoms of dry eye is by using eye drop products to improve vision, restore tear production and enhance quality of life. (dryeyedisease.ca) Normally people would treat dry eye symptoms by purchasing artificial tear as lubricant eye drop product from the pharmacists. (Health.net) The drug store market has varieties of artificial tear eye drop products. These can be divided into 2 categories such as: preservative eye drop products and non-preservative eye drop products. The difference of category is period of time to use. Preservative eye drop product has shelved life of 1 month and non-preservative eye drop products have shelved life within 24 hours. (thairath.co.th) The preservative eye drop products has been debated on its preservative as a safe artificial tear may cause other diseases. (Tearfilm.org) The first objective of study is to understand the purchase intention of customers who intent to buy the non-preservative eye drop products. Bangkokians are people who have new lifestyle and have the infrastructure to support them including internet land service, access coverage the internet,

number of employees, and number of drug stores. (Drug.fda.moph.go.th)

Nowadays people are concerned on the quality of life and health, thus they are conscious choosing good quality products. The second objective of study is to test the gender affect to purchase intention of non-preservative eye drop products.

The study would help to report the important factor affecting to the consumer to purchase intention of Bangkokians' toward non-preservative eye drop products and exploring the result of relationships between Perceived quality, perceived risk, perceived value, perceived price, Packaging, Perceived economic situation and customers' purchase intention. It also explores the difference between male and female affect toward purchase intention.

This research was conducted by distributing online questionnaires to obtain 7.5% the value of the Cronbach's Alpha. Questionnaire were distributed around Asoke road by convenience sampling method 200 surveys were specify each gender (male and female).

The limitation of study is time to do the research, number of target sample with 200 questionnaires per gender and do not have knowledge of non-preservative eye drop products.

### Literature Review

This chapter explains the definition of each variable and literature that to supports this study.

**Customers' Purchase Intention**

It is basic element of customer behavior which related with customer transaction with a retailer to purchase a service or some product again course. Almost marketers define purchase intention as the main of critical point for any business with the customers. It is necessary to maintain target of business for keep turnover, achieve target as a leader in the business.

A marketer would be able to estimate the number customer purchase of service and product. This behavior is specific depending on the situation, the first impression with the service or product. The term focusing on buyer intent is the motivation for individual action. Any product should be assessed through goods information in order to understand and investigate the product purchased by the customer. (Qayyum, Qadeer&Javed, 2014)

**Perceived Price**

Price is a main factor for customer purchase. Price is equated with the quality, Low price product shown low quality too. Customers buy brand which perceive product value for their money. (Jaafer, Lalp, &Mohamed, 2012)

**Perceived Quality**

Product & service quality is part of customer perception. It is defined as the manufacturer brands' standard for quality. Brands are able to mitigate this perspective of customer through advertising or brand image to induce customer behavior to buy or purchase intention. (Jaafer, Lalp, &Mohamed, 2012)

**Packaging**

Packaging is part of product image goods that affects customer perspective. Product or manufacture brands which are well-packaged account for better price as premium package combined with branding product. (Jaafer, Lalp, &Mohamed, 2012)

**Perceived Risk**

This element is defined as the different perceptions of several product categories. Customers are likely not to buy a goods if that the risk is high. e.g. low price, unsafe goods package and become a low quality of perspective. (Jaafer, Lalp, &Mohamed, 2012)

**Perceived Economy**

Customers for buy or purchase intention related with their economic situation. (Jaafer, Lalp, &Mohamed, 2012)

**Gender**

Different genders need information and process of purchase intention is different. The reason of purchase intention among male and female is related their behavior and life style that reflect to customers' purchase intention. (Liang, Chen, Duan and Ni, 2013) In the past female are favorable toward appearance and

attractive to other than male that reflect to process their purchase intention. (Zeynuli and Golkar, 2013)

**Research Framework and Methodology**

The frame work is based from Jaafer, Lalp & Mohamed 2012 for Consumers' Perceptions, Attitude and Purchase Intention towards Private Label Food Products in Malaysia (Jaafer, Lalp, &Mohamed, 2012)

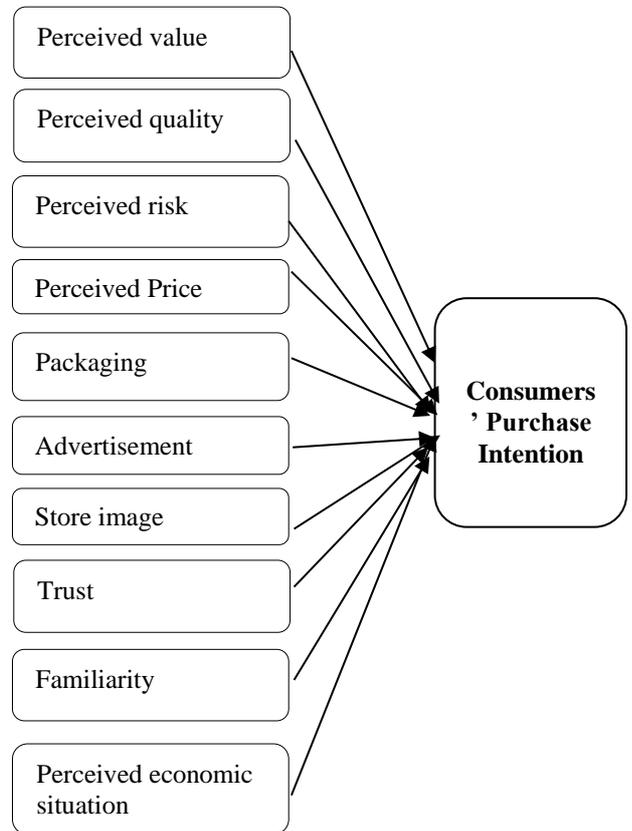


Figure 1: Conceptual framework of Jaafer, Lalp, & Mohamed, 2012

This study is use two methodologies. The theoretical Framework of this research about Bangkokians' purchase intention toward non-preservative eye drops products and also gender consider differences. This frame work was adopted from Jaafer, Lalp& Mohamed 2012 for Consumers' Perceptions, Attitude and Purchase Intention towards Private Label Food Products in Malaysia (Jaafer, Lalp, &Mohamed, 2012)

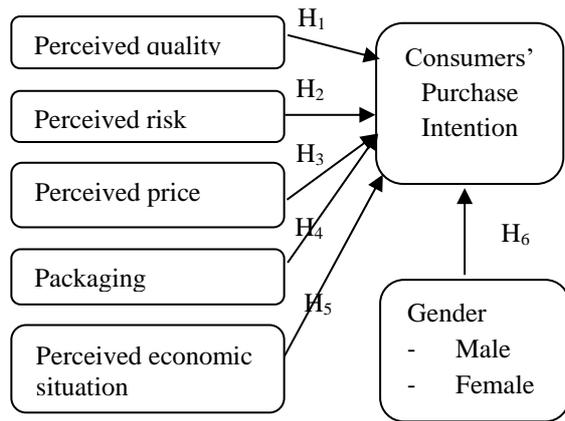


Figure 2: Conceptual framework adapt from Jaafer, Lalp, & Mohamed, 2012:

**Hypothesis**

- H1<sub>0</sub>: There is no significant relationship between Perceived quality and consumers' purchase intention.
- H2<sub>0</sub>: There is no significant relationship between Perceived risk and consumers' purchase intention.
- H3<sub>0</sub>: There is no significant relationship between Perceived price and consumers' purchase intention.
- H4<sub>0</sub>: There is no significant relationship between Packaging and consumers' purchase intention.
- H5<sub>0</sub>: There is no significant relationship between Perceived economic situation and consumers' purchase intention.
- H6<sub>0</sub>: There is no significant difference in purchase intention of non-preservative eye drop products based on gender between male and female.

The study collected the data thru convenience sampling using 400 samples. Quota sampling was 200 samples among male and female each. The screening question was "Do you live in Bangkok?" The questionnaire was divided into 2 parts. The first asked about gender, age range, household income, and occupation. The second part asked about perceived quality, perceived risk, perceived value, perceived price, Packaging, Perceived economic situation and dependent variable as Customers' purchase intention. The study used 5 point Likert scale: Strongly Disagree, Disagree, Neutral, Agree, and Strongly Agree. (Chen, M.H., 2001) After collecting all data from target samples the researcher analyzed the data by Pearson's correlation and Independent Sample T-Test to explore differences among 2 gender group.

The pilot study collected the survey through online survey. The value of 7.5% for a reliability of the questionnaire has done in Cronbach's Alpha statistical for measure reliability scale. The measure reliability coefficient is greater than 0.6 on each variable to accepted questionnaire. (Hair, J., Black, Babin, B., Anderson, R., & Tathan, R., 2006)

Table 1: Results from reliability pilot test by 30 correspondents

Variable	No. of items	Cronbach's Alpha
Perceived Price	6	0.780
Perceived Quality	4	0.700
Perceived Economy Situation	3	0.755
Perceived Risk	3	0.608
Packaging	4	0.730
Customers' Purchase Intention	4	0.903

**Results and Discussion**

This study had 400 respondents with the following demographic characteristic:

Table 2: Demographic of respondents

Item	Frequency	Valid Percentage
<b>Gender</b>		
Male	200	50.00
Female	200	50.00
<b>Total</b>	<b>400</b>	<b>100.00</b>
<b>Occupation</b>		
Private Company Officer	325	81.25
Government Officer	10	2.50
Business Owner	5	1.25
Unemployment	60	15.00
<b>Total</b>	<b>400</b>	<b>100.00</b>
<b>Monthly Household Income</b>		
Less than 15,000 THB	79	19.75
15,001 – 30,000 THB	184	46.00
30,001 – 45,000 THB	56	14.00
More than 45,001 THB	81	20.25
<b>Total</b>	<b>400</b>	<b>100.00</b>
<b>Age</b>		
Less than 20 years	6	1.50

Item	Frequency	Valid Percentage
21 – 25 years	113	28.25
26 – 30 years	94	23.50
31 – 35 years	108	27.00
Above 36 years	79	19.75
<b>Total</b>	<b>400</b>	<b>100.00</b>

### Data Analysis and Hypothesis testing

The aim of this study is to explore the factors associated with Bangkok consumers' intent to buy non-preservative eye drops products. This study finds the correlation of purchase intention of consumer for non-preservative eye drops products and gender to purchase intention of consumer for non-preservative eye drops products. This study used Pearson's correlation and Independent Sample T-Test. Pearson's correlation analysis was used to measure the relationship and effect

between independent variables and dependent variable. Pearson's correlation was also used to find the relationship between perceived quality, perceived risk, perceived value, perceived price, packaging and perceived economic situation with purchase intention in the non-preservative eye drops products.

The following discusses the value of the hypothesis to find relationship between perceived quality, perceived risk, perceived price, packaging and perceived economic situation toward purchase intention by using of Pearson's correlation with 95% confidence level. Guilford's (1973) states that the strength of correlation levels that are following: as  $< 0.20$  Almost negligible relationship,  $0.20-0.39$  Low correlation,  $0.40-0.69$  Moderate correlation,  $0.70-0.90$  High correlation, and  $> 0.90$  Very high correlation.

The H6 used Independent Sample T-Test to measure the significant indicates that difference between demographic data the significant value is less than 0.05 and is significant different between its. (Sweet, Martin, 2008.). The results of hypothesis testing for this study are as following:

Table 3: The result of Independent Samples T-Test

Customers' Purchase intention	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig	t	df	Sig (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.911	.340	-.528	398	.598	-.03500	.06626
Equal variances not assumed			-.528	397.306	.598	-.03500	.06626

*H1<sub>0</sub>: There is no significant relationship between Perceived quality and consumers' purchase intention.*

The result of Pearson's correlation coefficient analysis showed that the null hypothesis is rejected. The P-value of 0.000 and the correlation value of 0.383 means that is a low relationship between Perceived quality and Customers' Purchase intention of non-preservative eye drop products.

*H2<sub>0</sub>: There is no significant relationship between Perceived risk and consumers' purchase intention.*

The result of Pearson's correlation coefficient analysis showed that the null is rejected. The P-value of 0.000 and the correlation value of 0.377 means that is a low relationship between Perceived risk and Customers' Purchase intention of non-preservative eye drop products.

*H3<sub>0</sub>: There is no significant relationship between Perceived price and consumers' purchase intention.*

The result of Pearson's correlation coefficient analysis showed that the null is rejected. The P-value of 0.017 and the correlation value of 0.119 means that is an almost negligible relationship between Perceived price and Customers' Purchase intention of non-preservative eye drop products.

*H4<sub>0</sub> There is no significant relationship between Packaging and consumers' purchase intention.*

The result of Pearson's correlation coefficient analysis showed that the null is rejected. The P-value of 0.000 and the correlation value of 0.378 means that is a low relationship between Packaging and Customers' Purchase intention of non-preservative eye drop products.

*H5<sub>0</sub> There is no significant relationship between Perceived economic situation and consumers' purchase intention.*

The result of Pearson's correlation coefficient analysis showed that the null is rejected. The P-value of 0.000 and the correlation value of 0.199 means that is an

almost negligible relationship between Perceived economic situation and Customers' Purchase intention of non-preservative eye drop products.

Table 4: The result of Pearson Correlation Test

		Customers' purchase intention of non-preservative eye drop products
Perceived quality	Pearson Correlation Sig. (2-tailed)	.383** 0.000
Perceived risk	Pearson Correlation Sig. (2-tailed)	.377*** 0.000
Perceived price	Pearson Correlation Sig. (2-tailed)	.119* 0.017
Packaging	Pearson Correlation Sig. (2-tailed)	.378** 0.000
Perceived economic situation	Pearson Correlation Sig. (2-tailed)	.199** 0.000

\*\* Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

*H6o: There is no significant difference in purchase intention of non-preservative eye drop products based on gender between male and female.*

The result of Independent Samples T-Test showed  $H_6$  the null hypothesis is failed to reject. The P-value of 0.589 and the t value of -0.528 as  $t(398) = -0.528, P > 0.05$ . That's mean there is no difference based on gender between male and female for Customers' Purchase intention of non-preservative eye drop products.

### Conclusions and Recommendations

The research was conducted in Bangkok, Thailand. According to the study's objectives, the researcher would like to understand Bangkokians' who intent to purchase intention to buy non-preservative eye drop products that identify relationship between perceived quality, perceived risk, perceived price, packaging and perceived economic situation support toward purchase intention through Pearson's correlation analyze and explore difference in purchase intention of non-preservative eye drop products based on gender between male and female through Independent Sample T-Test analyze between two group. Referring to result shown above, the researcher found that the result of their hypothesis is significant at  $< .05$  it is clear that there are have a significant relationship and all the variables have weak relationship level and very weak relationship level between each other. On other side the researcher found the result difference to purchase intention base on gender is not significant at  $> .05$  it is clear that there are not difference between male and female to intent purchase intention for non-preservative eye drop products. In conclusion, we can say that perceived quality, perceived risk, perceived price, packaging and perceived economic situation have an impact

Bangkokians' toward customers' purchase intention in case study of non-preservative eye drop products.

The result is guide line for marketer who compete in eye drop market that the customer concern product quality, packaging and perceived risk of non-preservative eye drop products. On the other side perceived economic situation and perceived price is a small affect to customers' purchase intention toward non-preservative eye drop products.

The researcher recommended the ministry of public health would set up the project for buildup awareness of eye disease effect from new lifestyle that force from technology such as use mobile phone and computer including environment to improve dry eye symptoms. Moreover, the drugstore would join the project and share knowledge of eye drop product to people to encourage them to prevent eye disease and the best way to treatment of eye disease. The limitation of this study such as time limited, number of target samples, and specially product category in non-preservative eye drop product that all of the point to recommend in the future research of this category. Moreover, in the future research will have new variable to affect Bangkokians' such as wearing contact lens, repurchase intention of eye drop products, or different region of respondents. On the other hand, if this study has more time to conduct that will be more accurate, effective in a testing result and clarify result.

### References

- Jaafar, Lalp and Mohamed, (2012), "Consumers' Perceptions, Attitudes and Purchase Intention towards Private Label Food Products in Malaysia", Asian Journal of Business and Management Sciences, Vol. 2, No.8, pp. 73-79.
- Qayyum, Qadeer and Javed, (2014), "The impact on branded product on consumer purchase intention", Journal of Public Administration and Governance, Vol. 4, No.3.
- Bilal, (2013), "Factors Influencing Consumers Purchase Intentions towards Private Brands", JISR-MSSE, Vol. 11, No.2.
- Liang, Chen, Duan and Ni, (2013), "Gender Differences in the Relationship between Experiential Marketing and Purchase Intention", Journal of International Management Studies, Vol. 8, No.1.
- Zeynali and Golkar, (2013), "The impact of cause importance and gender on consumers' purchasing intention in cause-related marketing: A case study among customers of Iranian chain stores", Asian Journal of Social Sciences and Humanities, Vol. 2, No.2.
- Hair, J., Black, B., Babin, B., Anderson, R., & Tathan, R. (2006). "Multivariate data analysis" (6th edition), Upper Saddle River, NJ: Prentice Hall, pp. 87-138
- Guildford, J.F. (1973). "Fundamental Statistics in Psychology and Education" (5<sup>th</sup> edition), New York: McGraw-Hill.

- Sweet, S.A., Martin, K.G. (2008), *“Data analysis with SPSS”*, (3<sup>rd</sup> edition), US: America, pp. 106, 123-125, 134-139, 147-156.
- Chen, M.H. (2001), *“The determinants and traits of Impulsive buying behavior”*, Journal of Takming University, Vol. 17, pp. 59-74.
- Tearfilm.org, (2008), *“The Definition & Classification of Dry Eye Disease”*, Retrieved April, 2008, from <http://www.tearfilm.org/pdfs/OM%20-%20Definition%20&%20Classification.pdf>
- Dryeyedisease.ca, 2015. *“How do I know if I have a dry eye?”* from <http://www.dryeyedisease.ca/how-do-i-know/>
- Thairath.co.th, 2011. *“Do you know dry eye symptoms?”* Retrieved December 14, 2011, from <http://www.thairath.co.th/content/223055>
- Drug.fda.moph.go.th, 2013. *“Annual Statistics for drug store business license by the Bangkok area”* Retrieved January 1, 2014, from [http://drug.fda.moph.go.th/zone\\_search/files/ea001\\_e06.asp](http://drug.fda.moph.go.th/zone_search/files/ea001_e06.asp)
- Thaihealth.or.th, 2015. *“Computer vision syndrome”* Retrieved April 03, 2015, from <http://www.thaihealth.or.th/Content/27946%E0%B9%82%E0%B8%A3%E0%B8%84%E0%B8%84%E0%B8%AD%E0%B8%A1%E0%B8%9E%E0%B8%B4%E0%B8%A7%E0%B9%80%E0%B8%95%E0%B8%AD%E0%B8%A3%E0%B9%8C%E0%B8%A7%E0%B8%B4%E0%B8%8A%E0%B8%B1%E0%B9%88%E0%B8%99%E0%B8%8B%E0%B8%B4%E0%B8%99%E0%B9%82%E0%B8%94%E0%B8%A3%E0%B8%A1.html>
- Health.net, 2011. *“Q&A with The artificial tear”* Retrieved 2011, from [http://www.healthtoday.net/thailand/pharmacy/pharmacy\\_77.html](http://www.healthtoday.net/thailand/pharmacy/pharmacy_77.html)

## Factors Influencing Repurchase Intention Towards Green Lifestyle Products of a Thai-Owned Business

Sutinee Pramroj Na Ayudhya<sup>1</sup> and Sirion Chaipoopirutana<sup>2</sup>

<sup>1,2</sup> Graduate School of Business, Assumption University  
Corresponding E-mail: j.sutinee@gmail.com

### Abstract

The green industry is having an exponential growth. To create green brand sustainability, repurchase intention is the most important factor. The aim of this research is to investigate the influence of perceived corporate social responsibility (CSR), product quality, risk, and price, product functionality, product form, corporate reputation, perceived product value, attitudes toward products and repurchase intention toward the green lifestyle products of a Thai-owned business. These variables make up the eight hypotheses in this study which uses descriptive research to collect data through questionnaires distributed to customers who have purchased products from Labrador Co., Ltd over the last year. Judgment sampling, quota sampling, and convenience sampling were applied as sampling procedures in this study. 400 questionnaires were distributed and analyzed through descriptive analysis and inferential analysis. The results of hypothesis testing show that CSR and perceived product quality significantly influence corporate reputation. Besides, perceived product quality, perceived risk, and perceived price significantly influenced perceived product value. Meanwhile, the influence of perceived product quality on perceived risk and functionality on product form are significantly correlated. Also, product functionality, product form, and perceived product value are significant in terms of attitudes toward products. Perceived price significantly influences repurchase intention. Likewise, corporate reputation, perceived product quality, perceived risk, perceived price, perceived product value, and attitudes toward product significantly influence repurchase intention. Corporate reputation, however, has no significant influence on repurchase intention. This research will provide value for management, marketing, and the design team of Labrador. In addition, other green lifestyle product brands can look at all these factors to enhance business performance and redirect their marketing plans.

**Keywords:** repurchase intention, green marketing, green lifestyle products, Thai-owned Bangkok-based business

### Introduction

There is global anxiety referring to the negative impact of industrial manufacturing and human activities on the earth, which continuously increase. Consequently, the most efficient way to solve these problems could begin with design through production process, using of alternative energy, and packaging. Therefore, the green industry is having exponential growth. In order to create sustainability of green brands, repurchase intention of products or services is the most important factor. Furthermore, consumers repurchase intention is considered as a key to support marketing strategies and lead to business success (Cronin *et al.*, 2000). Besides, it is of considerable interest for academic research to find out the factors influencing consumers repurchase intentions (Dow, 2006). Prior studies have examined the factors that truly influences repurchase intention of green lifestyle products of a Thai-owned business as Labrador among consumers in Bangkok, Thailand. Hence, the researchers developed

eight hypotheses based on nine independent variables and one dependent variable to evaluate the factors influencing repurchase intention toward green lifestyle products. Thus, the variables utilized in this research are perceived corporate social responsibility (CSR), perceived product quality, perceived risk, perceived price, product functionality, product form, corporate reputation, perceived product value, attitude toward product, and repurchase intention. Additionally, Labrador is the outstanding Thai lifestyle product brand that designs and manufactures leather goods, recycled leather goods, eco-paper goods, and other products produced by using recycled-recyclable materials. Furthermore, they innovated environmentally friendly materials, to avoid waste. Previous studies criticized consumers' purchase intention of environmentally friendly products in a variety of contexts. Based on many previous researches, the researchers have made contributions related to green marketing issues. For example, the effect of green purchase intention; price

presentation effect on green purchase intentions; green purchase intentions, the role of green perceived value, green perceived risk, and green trust; differences of customer purchase behavior toward organic rice in Indonesia and Taiwan; the effect of perceived brand environment-friendliness on Indian consumers' attitudes and purchase intention; Chinese consumers' attitudes and purchase intention toward green products (Huang *et al.* (2014); Weisstein *et al.* (2014); Chen and Chang (2012); Moslehpour *et al.* (2013); Punyatoya (2015); Tang *et al.* (2014). The purpose of the current research is to investigate the influence among perceived corporate social responsibility (CSR), perceived product quality, perceived risk, perceived price, product functionality, product form, corporate reputation, perceived product value, attitude toward product, and repurchase intention. Hence, this study develops brand theory and green issues (Wu and Chen, 2014; Gatti *et al.*, 2012; Beneke *et al.*, 2013; Kim and Chung, 2011; Lee and Pillai, 2013).

### **Literature Reviews**

#### ***Perceived Corporate Social Responsibility (CSR):***

The concept when firms merge environmental concerns into production and business operations. CSR activities are also able to use recycling programs, eco-friendly materials, and social events (Sen and Bhattacharya, 2001). In terms of perceived CSR, it is an actual concept when consumers acknowledge an achievement when a company takes into consideration the environment with regards to business operations and also production processes. CSR activities can be either activity-operated exclusively in-organization or activities in cooperation with outsiders. Besides, both kinds of CSR activities provide positive effects for society and the environment.

#### ***Perceived Product Quality:***

The consumers' judgment about the overall performance of the product to fulfill their expectations, overall environmental excellence or superiority (Zeithaml, 1988; Rowley, 1998). However, the firm can intensify its level of product quality, in order to gain more competitive advantages (Parasuraman *et al.*, 1988). Though consumers' awareness conforms to their anticipation, perceived product quality will be recognized as a positive aspect. In conclusion, perceived product quality is definitely relevant to consumers' experience of products (Zeithaml, 1988). The standard of manufacturing procedures and special features are items to evaluate the quality of the product (Agarwal and Teas, 2004).

#### ***Perceived Risk:***

A personal expectation of a negative affect (Murphy, 1986; Engel *et al.*, 1995). The consumer may

experience this when a product does not satisfy their expectations while using the product (Murphy and Enis, 1986). Furthermore, psychological risk and comprises social risk, which is the effect from judgment of others in society to the product's users. So, physical risk refers to the possibility a product that affect consumers' health or image, which may be caused by material or operation processes while the product was being produced. Lastly, financial risk is closely related to the amount of money that has been paid (Mitchell and McGoldrick, 1995).

#### ***Perceived price:***

The consumer's price perception closely to the perception of value (Nagle and Holden, 1995). Identically, the pricing concepts of how customers determined a product's price as "cheap" or "expensive" are relying on product value and consumers' perception toward the product. For instance, "cheap" is demonstrated as inexpensive or low in price compared to same kinds of product. As well the product gives an extra value beyond users' expectations or required price. In contrast, "expensive" indicates expensive or high in price for in-between products in the same category. Likewise, product provides lower value than customers' expectation (Kashyap and Bojanic, 2000).

#### ***Product Functionality:***

The ability or utility of a product based on efficient design to maximize usage, in order to complete consumers' essential usability well (Liang, 2009). However, human-centered is the design method, which focuses on contentment and the requirement of the product's users. To illustrate, additional storage area for specific equipment and convenience holders may require some product categories' (Norman, 2004). Product functionality is contingent on consumers' perception of fundamentally dissimilar characteristics offering previously (Carpenter and Nakamoto, 1989). Liang (2009) defined functionality as an ability from usage of product to fulfill essential advantage; it is affected by important functional characteristics.

#### ***Product Form:***

Design elements related to the appearance of the product such as its size, shape, and color (Liang, 2009). Importantly, form is the design elements take advantage of consumers' memorability. Besides, the superior design of a product's form can be attractive for the product's consumers (Bloch, 1995). Product form is one of the important factors that affects consumers' intentions, rather than price (Lotler and Rath, 1984; Nussbaum, 1988). On the other hand, the overall product appearance is significant for consumers (Nussbaum, 1993). The form of the product could make a primary impression concerning the price (Berkowitz, 1987).

**Corporate Reputation:**

The corporation's image from the consumer's experience, which sensitively generate thoughts, feelings, and previous consumption experiences towards recycled/recyclable products (Yuille and Catchpole, 1977). However, nowadays corporate reputation focuses on sustaining value perception among consumers. Also, a positive perspective on corporate image, reputation, and value are considered as "good company" (Van Reil et al., 1998). Nguyen and LeBlanc (1998) defines reputation not only as reputation perceived by the consumers, but it's an outcome indicated when consumers compare several features of the company. Caruna (1997) defined firm reputation as an intrinsic feeling of consumers referred to the products or services provided, the researcher indicated that it's impossible to evidence actual quality of the goods before purchasing them.

**Perceived Product Value:**

The direct benefits perceived by consumers after they experience the quality and performance of the product. Also, the product would have an environmental benefit (Monroe, 2002). Nowadays, perceived product value is more significant than previously. Steenkamp and Geysken (2006) described perception of consumer to product value can be enhanced by companies; a product can give value to consumers by providing benefits, and also, uniqueness of the product for them (Zeithaml, 1988; Aaker, 1996). As environment awareness is widespread, perceive value toward green products was constructed. Patterson and Spreng (1997) defined as the overall benefits of products based on environment desires, sustainable anticipation, and environmentally friendly needs.

**Attitude toward Product:**

The level of consumer's satisfaction is influenced by an experience toward the product referred to as environmental desires, sustainable expectations, and green needs in a favorable or unfavorable aspect (Chan, 2009). In addition, attitude toward product is a personal evaluation of a product performance perceived by users that influences purchase intention (Mackenzie and Spreng, 1992; Teng, 2009). Specifically, attitude toward product in the category of environmental concern refers to personal concept (Zelezny and Schultz, 2000). The customers' determination and all-inclusive evaluation of the product are considered as a judgment of attitudes toward product (Teng, 2009).

**Repurchase Intention:**

Consumers' decision to buy a product again, which come from the value and benefits perceived by consumers (Zeithaml 1988). As a matter of fact, repurchase intention could be explained as consumers' possibility to make a decision to buy a product again

(Dodds et al., 1991; Grewal et al., 1998) or re-visit a store (Shao et al., 2004). Nevertheless, consumers' earlier experiences with contentment play an important role in future purchase behavior (Jones and Suh, 2000; Russell-Bennett et al., 2007).

**Materials and Methods**

This study applied the quantitative method, which is descriptive research by distributing a questionnaire survey to collect the data from customers who have experienced purchasing products from Labrador Co. Ltd. within one year and also, customers may purchase in any Labrador shops. The research purpose is to investigate an influencing factor among the independent and dependent variables. The following sections will narrate the research model, statement of the research hypotheses, the research design, and data collection.

**Research Model and Framework**

The research model is developed from five relevant previous researches (Wu and Chen, 2014; Gatti et al., 2012; Beneke et al., 2013; Kim and Chung, 2011; Lee and Pillai, 2013).

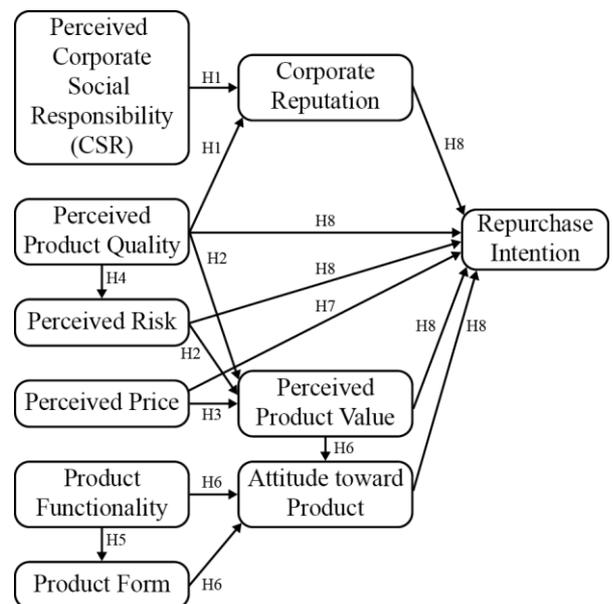


Figure 1: Conceptual framework of "Factors Influencing Repurchase Intention towards Green Lifestyle Products of Thai-Owned Business"

**Research hypothesis**

There are eight hypotheses based on figure 1. All hypotheses are set below:

H1: Perceived corporate social responsibility (CSR) and perceived quality influenced corporate reputation.

- H2: Perceived product quality and perceived risk influenced perceived product value.
- H3: Perceived price influenced perceived product value.
- H4: Perceived product quality influenced perceived risk.
- H5: Product functionality influenced product form.
- H6: Product functionality and product form, and perceived product value influenced attitude toward product.
- H7: Perceived price influenced repurchase intention.
- H8: Corporate reputation, perceived product quality, perceived risk, perceived product value, and attitude toward product influenced repurchase intention.

**Research design**

An essential part of this research is related to which procedure to use for conducting this research. In this study, the researchers selected customers of Labrador in Bangkok, Thailand as the respondents. Thus, the researchers applied non-probability as a sampling procedure as the conductor of this study. Sekaran (2003) mentioned that non-probability sampling is the expectation of any specific member of the population being selected is unknown for the researcher. Nevertheless, non-probability is a sampling technique that relies on personal judgment and the convenience of the researcher. However, the researchers decide to apply judgment sampling, quota sampling, and convenience sampling in this study. The data analysis included descriptive analysis to evaluate the variables of both the independent and dependent variables with the result of mean and demographic factors exhibited in frequency and percentage. Then, in order to analyze the data, the researchers used inferential analysis to test the interaction between the variables, hypothesis testing by using Simple Regression Analysis and Multiple Regression Analysis methods to test the research hypotheses.

**Data collection**

This research collected the data from 400 customers in four flagship stores, which consist of the Labrador shop on the 3<sup>rd</sup> Floor of Central Embassy, the Labrador shop on the 3<sup>rd</sup> Floor of Siam Square One, the Labrador shop on the G Floor of Silom Complex and the Labrador shop on the 3<sup>rd</sup> Floor of Terminal 21. The researchers collected the data during one month in December 2015. The questionnaires were applied by using the five point likert scales, which was divided into four parts: these are: the screening question, the independent variables, the dependent variable, and the demographic factors.

**Results and Discussion**

**Research findings**

In this study, a total of 400 valid questionnaires were gathered from both Thai and international Labrador customers. There are eight demographic and general information categories: gender, age, income (per month), education level, occupation, nationality, purchase frequency (times per year), and buying period.

Table 1: Summary of demographic and general information

Variables	Characteristics	Frequency (f)	Percentage (%)
Gender	Female	291	72.8
Age	21 - 30 years	222	55.5
Income (per month)	10,000 - 30,000 THB.	173	43.3
Education level	Bachelor's degree	229	57.3
Occupation	Employee	207	51.7
Nationality	Thai	390	97.5
Purchase frequency (times per year)	< 3 times	135	58.8
Buying period	Regular	280	70

With reference to the results of the research as indicated in Table 1, the outcome of this study indicated that a majority of the group is female, which is equal to 72.8 percent or 291 respondents. Most of the respondent's Age level is 21 - 30 years, which is equal to 55.5 percent or 222 respondents. Furthermore, the largest group of income per month is 10,000 - 30,000 THB, which is equal to 43.3 percent or 173 respondents, and most customers had graduated bachelor's degree, which equal to 57.3 percent or 229 respondents. Moreover, the largest number of respondents who purchased Labrador's product within one year is employees, which is equal to 51.7 percent or 207 respondents. In addition, the largest percentage of respondents is Thai, which is equal to 97.5 percent or 390 respondents. Most of the customers purchased the products less than 3 times per year, which is equal to 58.8 percent or 235 respondents. Likewise, the largest percentage of respondents purchased products in regular periods with 70 percent or 280 respondents.

Table 2: Descriptive Analysis of variables

Variables	Mean
Perceived corporate social responsibility (CSR)	4.00
Perceived product quality	4.11
Perceived risk	4.21
Perceived price	3.54
Product functionality	4.13
Product form	4.33
Corporate reputation	4.09
Perceived product value	4.09
Attitude toward product	4.11
Repurchase intention	4.10

With reference to the results of the research as indicated in Table 2, this is a summary of the descriptive analysis of the variables from 400 respondents, which was collected by the researchers from four branches of the Labrador shop in Bangkok, Thailand. Accordingly, the results from descriptive analysis of variables demonstrated that the highest mean for the independent and dependent variables was product form, which is equal to 4.33. To illustrate, it explains why the respondents felt "The product has a good appearance." at 4.48. Furthermore, perceived risk had a mean value equal to 4.21, product functionality was equal to 4.13, perceived product quality and attitude toward products were equal to 4.11, repurchase intention was equal to 4.10, corporate reputation and perceived product value were equal to 4.09, and perceived corporate social responsibility (CSR) was equal to 4.00. Lastly, the lowest mean is equal to 3.54 from perceived price.

The result of data analysis in this study utilized Simple Linear Regression to test hypotheses three, four, five, and seven. Additionally, Multiple Linear Regression tested hypotheses one, two, six, and eight as indicated in Table 3.

Table 3: Descriptive Analysis of variables

Hypothesis	Level of significance	Beta Coefficient	Result
H1 <sub>0</sub>			
- PCSR	.000	.425	Reject H <sub>0</sub>
- PQUA	.000	.340	Reject H <sub>0</sub>
H2 <sub>0</sub>			
- PQUA	.000	.201	Reject H <sub>0</sub>
- PRIS	.000	.460	Reject H <sub>0</sub>
H3 <sub>0</sub>			
- PPRI	.000	.599	Reject H <sub>0</sub>
H4 <sub>0</sub>			
- PQUA	.000	.547	Reject H <sub>0</sub>
H5 <sub>0</sub>			
- PFUN	.000	.543	Reject H <sub>0</sub>
Hypothesis	Level of significance	Beta Coefficient	Result

H6 <sub>0</sub>			
- PPFUN	.000	.174	Reject H <sub>0</sub>
- PFOR	.012	-.119	Reject H <sub>0</sub>
- PPVA	.000	.708	Reject H <sub>0</sub>
H7 <sub>0</sub>			
- PPRI	.000	.686	Reject H <sub>0</sub>
H8 <sub>0</sub>			
- CREP	.382	.056	Failed to Reject H <sub>0</sub>
- PQUA	.000	.254	Reject H <sub>0</sub>
- PRIS	.036	.129	Reject H <sub>0</sub>
- PPVA	.000	.277	Reject H <sub>0</sub>
- ATPR	.000	.289	Reject H <sub>0</sub>

Note: PCSR = Perceived corporate social responsibility, PQUA = Perceived product quality, PRIS = Perceived risk, PPRI = Perceived price, PFUN = Product functionality, PFOR = Product form, CREP = Corporate reputation, PPVA = Perceived product value, ATPR = Attitude toward product

Based on the results exhibited in Table 3. Hypothesis one indicated that perceived corporate social responsibility (CSR) and perceived product quality had a significant value equal to .000 (.000<.05) for both variable. In addition, the highest beta value from perceived CSR equal to .425 and the lowest beta value from perceived product quality equal to .340. Perceived corporate social responsibility (CSR) and perceived quality influenced corporate reputation. Based on the result of hypothesis two, the researchers found that perceived product quality and perceived risk had a significant value equal to .000 (.000<.05) for both variable. Likewise, the highest beta values from perceived risk equal to .460 and perceived product quality equal to .201, respectively. Perceived product quality and perceived risk influenced perceived product value. Based on the result of hypothesis three, the result indicated that perceived price had a significant value equal to .000 (.000<.05). Also, the beta value from perceived price equal to .599. Perceived price influenced perceived product value. Based on the result of hypothesis four, the result showed that perceived product quality had a significant value equal to .000 (.000<.05). Further, the beta value from perceived product quality is .547. Perceived product quality influenced perceived risk. Based on the result of hypothesis five, product functionality had a significant value equal to .000 (.000<.05). Moreover, the beta values from product form equal to .543. Product functionality influenced product form. Based on the result of hypothesis six, product functionality, product form, and perceived product value had a significant value equal to .000, .012, .000, respectively (.000,.012<.05). Additionally, the beta values from perceived product value equal to .708, product functionality equal to .174, and product form equal to -.119, respectively. Product functionality and product form, and perceived product value influenced on attitude toward product. Based on the result of hypothesis seven, perceived price had a significant value equal to .000 (.000<.05). Meanwhile, the beta values from perceived price equal to .686. Perceived price was influence on repurchase intention. Based on the result of hypothesis eight, perceived product quality,

perceived risk, perceived product value, and attitude had a significant value equal to .000, .036, .000, .000 ( $.000, .036 < .05$ ). While, corporate reputation had a significant value equal to .382 ( $.382 > .05$ ). Besides, The highest beta values from attitude toward product equal to .289, perceived product value equal to .277, perceived product quality equal to .254, and perceived risk equal to .129, respectively. On the other hand, the beta value from unstandardized coefficients referring to corporate reputation is .056. Perceived product quality, perceived risk, perceived product value, and attitude toward product influenced repurchase intention, while corporate reputation did not.

### **Conclusion**

According to the findings of the demographic and general information via descriptive analysis specify that the customers of Labrador were females, aged between 21-30 years old. Moreover, they earned 10,001-30,000 THB per month. The study observed that a majority of customers hold a Bachelor's degree and also, work as employees. On top of that, they are Thai who bought the products less than 3 times a year. Additionally, they always buy products at the regular price. These are the majority of respondents who more willing to repurchase green lifestyle products of Labrador. Also, they selected the products with concern for environmentally friendly issues.

Moreover, based on descriptive analysis of the variables, it becomes evident that the green lifestyle products' consumers pay highest attention to product form as a priority factor when they choose to repurchase the product to suit their lifestyle. Referenced to the result of the descriptive analysis of variables, which indicated that product form has the highest mean among all variables at 4.33. The related operational component is "The product has a good appearance." This means the design of the product's form is the most important factor influencing consumers' decision to buy the product from Labrador again. On the other hand, perceived price indicted the lowest mean at 3.54. It means if the product has a good appearance to suit their personality and lifestyle, they are willing to pay a premium price for these environmentally friendly concerned lifestyle products to satisfy their life, also being a part of ecological support for a better world.

Furthermore, the inferential analysis of this research, the researches used Regression Line to examine eight hypotheses with the assistance of the statistical program, which the purpose of this study is to investigate the influence of perceived corporate social responsibility (CSR) and perceived product quality on corporate reputation; the influence of perceived product quality, perceived risk, and perceived price on perceived

product value; the influence of perceived price on perceived product value; the influence of perceived product quality on perceived risk; the influence of product functionality on product form; the influence of product functionality, product form, and perceived product value on attitude toward product; the influence of perceived price is influence on repurchase intention; the influence of corporate reputation, perceived product quality, perceived risk, perceived product value, and attitude toward product are influence on repurchase intention.

The result from hypotheses testing through statistical analyses provide a better understanding to the readers and provide more information about consumer repurchase behavior factors among green lifestyle products of Thai-owned business in Bangkok. The empirical results indicated that there is a strong positive statistically significant influence of perceived corporate social responsibility (CSR) and perceived product quality on corporate reputation. Moreover, there is a strong positive significant influence of perceived product quality and perceived risk on perceived product value. Further, there is a strong positive significant influence of perceived price on perceived product value. Also, the result indicated that there is a strong positive significant influence of perceived product quality on perceived risk. Furthermore, the strong positive significant influence of product functionality on product form, And, the strong positive significant influence of product functionality, product form, and perceived product value on attitude toward product were indicated. Furthermore, a moderately positive significant influenced of perceived price on repurchase intention was demonstrated. Finally, there is a strong positive significant influenced of perceived product quality, perceived risk, perceived product value, and attitude toward product influenced on repurchase intention. Another important finding evidence that the highest beta coefficient value is the factor affecting customer's attitude toward product has extremely rely on the perception toward product value ( $\beta = .708$ ). It means that consumers are highly concerned with perceived product value to criticize their attitude toward product, especially the product values that refer to environmental benefits, product quality, and product performance. Besides, price perception is an important factor having high influence on both repurchase intention ( $\beta = .686$ ) and perceived product value ( $\beta = .599$ ). On the other hand, product functionality and attitude toward product has a negative influence ( $\beta = -.174$ ).

### **Recommendations**

This research provides crucial insight for Thai-owned green lifestyle product brands by verifying consumers repurchase intention and its variables via summarizing the results of hypothesis testing. Corporate reputation was found to be the most considerable determinant of repurchases intention among five

predictors. While, perceived product value showed the highest influenced value on attitude toward product that is an important factor which consequently affected consumers repurchase decision. Furthermore, the effect of price perception also presented great value of influencing perceived product value and repurchase intention. As a consequence, Labrador Co. Ltd., other Thai-owned green lifestyle product brands, and green lifestyle product retailers can design marketing strategies to increase corporate reputation by building good green awareness of product characteristics, spending money. On the other hand, the finding of this research recommends that creating a positive attitude toward product from product form may be noteworthy for retailers to increase consumers' repurchase decision among environmentally friendly products.

### **Acknowledgments**

I would like to express my sincere thanks to Asst. Prof. Dr. Sirion Chaipoopirutana, my admirable advisor for being my thesis advisor and for all valuable advice, kind help, great support and encouragement throughout the thesis progress. All committee members; Dr. Apichart Intravisit, Dr. Vorapot Ruckthum, Asst. Prof. Dr. Kriengsin Prasongsukarn, and Asst. Prof. Dr. Rane Esichaikul for their time and effective comments for my thesis. Mr. Anek Kulthaveesup (Owner of Labrador Co., Ltd.), K. Nan, K. Pailin, and Labrador's team for kindly supporting and assisting during the data collecting process. Additionally, I am thankful to all my friends in the Graduate School of Business for sharing our experiences and school life. Especially to Kannan Vilaisai and Rarintorn Intoatiporn who always supported and gave me valuable advice during the thesis period. Finally, my special thanks to my beloved family and James for their gorgeous advice and love. Besides, I sincerely thank them for staying beside me, supporting me, and believing in my potential to complete this project. Without the kind support of these people, this thesis would not have been accomplished.

### **References**

- Aaker, D.A. (1996). *Building Strong Brands*, Free Press, New York, NY.
- Agarwal, S. and Teas, R.K. (2004). Cross-national applicability of a perceived risk-value model. *Journal of Product & Brand Management*, 13(4), 242-256.
- Beneke, J., Flynn, R., Greig, T., and Mukaiwa, M. (2013). The influence of perceived product quality, relative price and risk on customer value and willingness to buy: a study of private label. *Journal of Product & Brand Management*, 22(3), 218-228.
- Berkowitz, M. (1987). Product Shape as a Design Innovation Strategy. *Journal of Product Innovation Management*, 4 (12), 274-283.
- Bloch, P. H. (1995). Seeking the Ideal Form: Product Design and Consumer Response. *Journal of Marketing*, 59(3), 16-29.
- Carpenter, G.S. and Kent, N. (1989). Consumer Preference Formation and Pioneering Advantage. *Journal of Marketing Research*, 26(3), 285-298.
- Caruana, A., Money, A.H. and Berthon, P.R. (2000). Service quality and satisfaction the moderating role of value. *European Journal of Marketing*, 34, 1338-1352.
- Chan, W.W. (2009). Environmental measures for hotels' environmental management systems: ISO 14001. *International Journal of Contemporary Hospitality Management*, 21(5), 542-560.
- Chen, Y.S., and Chang, C.H. (2012). Enhance green purchase intentions The roles of green perceived value, green perceived risk, and green trust. *Management Decision*, 50(3), 502-520.
- Cronin, J.J., Brady, M.K. and Hult, G.T.M. (2000). Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. *Journal of Retailing*, 76(2), 193-218.
- Dodds, W.B., Monroe, K., and Grewal, D. (1991). Effects of price, brand, and store information on buyers' product evaluations. *Journal of Marketing Research*, 28, 307-319.
- Engel, J.F., Blackwell, R.D. and Miniard, P.W. (1995). *Consumer Behavior*, Dryden Press, Fort Worth, TX.
- Gutti, L., Caruana, A., and Snehota, I. (2012). The role of corporate social responsibility, perceived quality, and corporate reputation on purchase intention: Implications for brand management. *Journal of Brand Management*, 20(1), 65-76.
- Huang, Y.C. and Yang, M. (2014). Effects of green brand on green purchase intention. *Marketing Intelligence & Planning*, 32(3), 250-268.
- Jones, M.A. and Suh, J. (2000). Transaction-specific satisfaction and overall satisfaction: an empirical analysis. *Journal of Services Marketing*, 14(2), 147-159.
- Kashyap, R. and Bojanic, D.C. (2000). A structural analysis of value, quality, and price perceptions of business and leisure travellers. *Journal of Travel Research*, 39(1), 45-51.
- Kim, H.Y. and Chung, J.E. (2011). Consumer purchase intention for organic personal care products. *Journal of Consumer Marketing*, 28(1), 40-47.
- Lee A., and Pillai R.G. (2013). More to Form than Meets the Eye? The Impact of Form and Functional Design on Attitude towards New Products. *Journal of Managerial*, 25(4), 345-359.

- Liang, J. (2009). The interplay between product form, functionality and expertise in consumer choice. *Advance in Consumer Research*, 38.
- Mackenzie, S.B. and Spreng, R.A. (1992). How does motivation moderate the impact of central and peripheral processing on brand attitudes and intentions. *The Journal of Consumer Research*, 18(4), 519-529.
- Mitchell, V.W. and McGoldrick, P.J. (1995). Consumer risk reducing strategies: a review and synthesis. *International Journal of Retail, Distribution and Consumer Research*, 6(1), 1-33.
- Moslehpour, M., Kien, P.V., and Danyfislra, I. (2014). Differences of customer purchase behavior toward organic rice in Indonesia and Taiwan. *International Journal of Quality and Service Sciences*, 6(4), 248-368.
- Murphy, P.E. and Enis, B.M. (1986). Classifying products strategically. *Journal of Marketing*, 50(3), 24-42.
- Nagle, T.T. and Holden, R.K. (1995). *The Strategy and Tactics of Pricing*. New Jersey: Prentice Hall.
- Norman, D. (2004). *Emotional Design*. Cambridge, MA: Basic Books.
- Nussbaum, B. (1988). Smart Design. *Business Week*, (April 11), 102-17.
- Nussbaum, B. (1993). Hot Products. *Business Week*, (June 7), 54-57.
- Patterson, P. and Spreng, R. (1997). Modeling the relationship between perceived value, satisfaction and repurchase intention in a business-to-business, service context: an empirical examination. *International Journal of Service Industry Management*, 8(5), 414-34.
- Punyatoya, P. (2015). Effect of perceived brand environment-friendliness on Indian consumer attitude and purchase intention. *Marketing Intelligence & Planning*, 33(3), 258-275.
- Rowley, J. (1998). Quality measurement in the public sector: some perspectives from the service quality literature. *Total Quality Management*, 9(2/3), 321-335.
- Russell-Bennett, R., McColl-Kennedy, J.R. and Coote, L.V. (2007). Involvement, satisfaction, and brand loyalty in a small business services setting. *Journal of Business Research*, 60(12), 1253-1260.
- Sekaran U. (2003). *Research Method for Business*. New York: John Wiley&Sons, Inc.
- Sen, S. and Bhattacharya, C.B. (2001). Does doing good always lead to doing better? Consumer reactions to corporate social responsibility. *Journal of Marketing Research*, 38 (2), 225-243.
- Shao, C.Y., Baker, J. and Wagner, J.A. (2004). The effects of appropriateness of service contact personnel dress on customer expectations of service quality and purchase intention: the moderating influences of involvement and gender. *Journal of Business Research*, 57(10), 1164-1176.
- Steenkamp, J.B.E.M. and Geyskens, I. (2006). How country characteristics affect the perceived value of web sites. *Journal of Marketing*, 70(3), 136-50.
- Tang, Y., Wang, X., and Lu, P. (2014). Chinese consumer attitude and purchase intent towards green products. *Asia-Pacific Journal of Business Administration*, 6(2), 84-96.
- Teng, L. (2009). A comparison of two types of price discounts in shifting consumers' attitude and purchase intentions. *Journal of Business Research*, 62(1), 14-21.
- Weisstein, F.L., Asgari, M., Siew, S.W. (2014). Price presentation effects on green purchase intentions. *Journal of product & Brand Management*, 23(3), 230- 239.
- Wu, S.I., and Chen, Y.J. (2014). The impact of Green Marketing and Perceived Innovati on on Purchase Intention for Green Products. *International Journal of Marketing Studies*, 6(5), 81-95.
- Zeithaml, V. (1988). Consumer perceptions of price, quality and value: a means-end model and synthesis of evidence. *Journal of Marketing*, 52(7), 2-22.
- Zelezny, L.C. and Schultz, P.W. (2000). Promoting environmentalism. *The Journal of Social*, 56(3), 365-371.

## Identification of Dine-out factors associating with decision to use Restaurant Deals Website (RDW) by Generation Y people in Bangkok Metropolis.

Vichida Sangsngapong<sup>1</sup> and Apichart Intravisit<sup>2</sup>

<sup>1,2</sup> Assumption University, Bangkok, 10240, Thailand

Corresponding author. Email: [punchvichi@gmail.com](mailto:punchvichi@gmail.com), [apichart.intravisit@gmail.com](mailto:apichart.intravisit@gmail.com)

### Abstract

**Purpose** – The purpose of this study is to identify factors that relate to generation Y in Bangkok metropolis to use and purchase restaurant deals on a certain website.

**Design/Methodology/Approach** – This study undertakes a survey research using a designed questionnaire about how people use Restaurant Deals Website. Conducted within 3 months, the questionnaires cover 389 random samples, whose ages are from 22 to 35 years-old, and live in Bangkok Metropolis. Pearson Correlation is adopted.

**Findings** – Showing a significant relationship among variables, the study reveals that generation Y's using Restaurant Deals Website varies, depending on their dining behavior as well as their experience on the website.

**Practical Implications** – This research study is useful to website marketers by identifying how to enhance website attractiveness, as well as allowing researchers to pursue a further study that relates to consumer behaviors when it comes to using a Restaurant Deals Website.

**Keywords:** Generation Y, restaurant deals website

### Introduction

Dining out is a part of people's routine in urban society. With life encountering with intense traffic jams, the hustle and bustle of work race against time on a daily basis, it is no surprise that urban people would prefer to make their life easier and more convenient by dining out, instead of having to cook for themselves, at home. Even if the cost of dining out at one time appears to be relatively high, as opposed to one's earning, consumers continue to look for dining-out activities, especially those with the best price or deals that fit their purse. As a result, Restaurant Deals Websites where information of whereabouts, details, deals, and discount of member-restaurants are provided, have emerged across major cities around the world, including Bangkok.

In Thailand, there are websites for finding restaurant deals, and those websites house abundance of informations, deals, and restaurant reviews that serve their customers upon their quest for a right place to dine and enjoy. The website features a real-time online marketplace that connects customers with local restaurants, offering a variety discount coupon deals, updated news on the culinary experiences, changes of menus and entertainment programs, and special promotions.

Restaurant Deals Websites are growing leap with the market leader known as is Ensogo, also Thailand's first website that launches an online deals. Ensogo Thailand was established in 2010, and has grown rapidly over the years (with current number of over 1 million followers on its official Facebook page.) There are also other Restaurant Deals Websites in Thailand. Other websites are Allthaicoupons, Wongnai, IdealinThai, XetaSale, or Eatigo, and they function as similarly as

Ensogo. For example, the website call 'Wongnai' as the number one website and application for restaurants reviews. They have started to handle the business of selling the restaurants deals a few months ago (2016). The factors that cause the growth of websites are due to the changing lifestyles - with busy urban lifestyle, it is not surprised that consumers these days prefer to score better deals online than to have to go explore their alternative options, physically. Hence, many restaurant businesses have started to use such opportunity to generate more revenue through the online channel. Nowadays, restaurants implement techniques like trading online features, such as announcing special promotions to drive sales, with an adoption of data from the consumer's purchase history.

The market value of e-commerce in Thailand increased from 2,033,493.4 million baht in 2014 to 2,107,692.9 million baht in 2015. The hospitality industry is worth 658,909.76 million baht (ETDA, 2015). The results from ETDA Electronic Transactions Development Agency (2015) survey of a Project 'Thailand online mega sale 2015' reveal that more than 45% of consumers are inclined to purchase products from cosmetics, food and health sections.

Among all generations in the businesses in urban areas, Generation Y (which will be referred as 'Gen Y' throughout this research paper) is more active when it comes to dine-out habit. Born between 1981 and 1998, they are also in the age group that is recently graduated and about to enter the job market. Their earning potential, as well as their lifestyle attached to social networking activities, therefore, makes them a dynamic, key market segment. In addition, this generation has grown up with saturated technology and spends most of

the time on social media. They have an ability to search for information across various media platforms. Generation Y also possesses the characteristics which demonstrate their preference in personalization and customization of goods and services. A report shows that 34% of Gen Y people enjoy hanging-out with their friends and dining-out with acquaintances (SCB Economic Intelligence Center, 2014).

Therefore, with given reasons above, the dine out behavior of Generation Y, especially those located in Bangkok, have some relation to decision to use Restaurant Deals Websites.

### **Statement of Problems**

Study on the restaurant deals is a novelty in the area of business research, while dine-out behaviour studies are substantial. Factors associating with decision to dine out include social eating behavior, prices and values, attractiveness of the promotion itself. Website quality is added up to an influential factor, in accordance to Gen Y's lifestyle. Recognizing Gen Y's dine-out behaviour helps to determine market directions of current and up-and-coming restaurant businesses in Bangkok Metropolis, as the restaurant business has been sprouting larger, and urban lifestyle has been widely adopted. In addition, application and web businesses would need to dig deeper to their dynamic consumers' behaviour, especially that of the new generations. This study therefore wishes to investigate:

### **Research Questions**

RQ1: What constitutes dine-out behaviour of Gen Y people in Bangkok Metropolis?

RQ2: To what extent dine-out behaviour is related to Gen Y's decision to use restaurant deals website?

### **Research Objectives**

To describe the dine-out behavior of Gen Y population in Bangkok metropolis.

To identify the extent of which dine-out behavior is related to Gen Y as well as their decision to purchase a deal through Restaurant Deals Websites.

## **Literature Review**

### **Social Eating Behavior**

Observation of studies reveals that dining out can influence how people perceive their own and others' social statuses (Warde & Martens, 2000). The study from Pawan, Langgat & Marzuki (2014) shows that social eating behaviour is contributed by Gen Y consumer's perception. Thus, it has become the main focus of this research to explore the relationship of the social eating behaviour further. Previously, it has been found that not only the psychological factors (such as motivation, past experience and surrounding) are important, but also the behaviour of the consumers themselves, that can compel them to purchase the product (Paul & Rana, 2012). However, there are not many studies that specify a focus associating with social eating behaviours, decision or intention to use product

or service.

### **Price and Value**

Price is one of the main influential factors when consumers are making a decision to buy (Setiawan & Achyar, 2012). Price variations trigger perception of quality of the product as well (Yoo, Donthu & Lee, 2000).

Among the relationship model of three aspects, which include price, quality and perceived value. The factor that is significant to consumer's purchasing decision is the perceived value of the product (Dodds & Monroe, 1985). Pawan *et al.* (2014) proposed that consumers are likely to make a purchase when their expectation of the product is exceeded, same goes for the perceived value, as they will purchase it they see that the price is lower than the perceived price. Chu and Lu (2007) have also agreed with the theory as they found that consumer perceived price has an impact on consumer's willingness when it comes to online shopping. The study of the impact of perceived value on an intention to purchase by Swait (2000) revealed that purchase behaviors are driven by various perceived values amongst the consumers.

### **Promotion Offer**

A promotion (namely, special offers such as discounts, freebies and so on) is a technique that modern companies commonly use to increase and support selling activities (Neha & Manoj, 2013). A promotion is one of the tools that company can use to attract consumers to give a product or service a try (Obeid, 2014). Promotion techniques usually vary, depending on objectives (Alvarez & Casielles, 2005). Promotion can influence consumer's purchasing behaviors, both positively and negatively (Chakraborty, Hossain, Azad, & Islam, 2013). The study of price promotion influencing on customer evaluations from Huang, Chang, Yeh & Liao, (2014) showed that promotion activities have more favorable impact on consumer's decision. This is relatively consistent with the research done by Chou and Kimsuwan (2013) where it showed that the factor affecting intention to purchase of online game prepayment card in Thailand, is the promotion they offered.

### **Website Quality**

Website quality refers to the consumer's perception towards the overall quality of a website which includes functions, looks, and how it interfaces with consumers (Poddar, Donthu, & Wei, 2009). Aladwani and Palvia (2002) stated that website quality is identified as user's evaluation of how the website can meet their needs and or be impressed by the outstanding features of such website. The WebQual model is introduced by Barnes and Vidgen (2000) and website quality is set upon quality function development which emphasizes on three major aspects: usability, information quality, service quality and interaction (Chakraborty *et al.*, 2013). Website Quality plays an

important role in online shopping (Wolfenbarger & Gilly, 2003). The previous research that examined the association of the website quality and the purchase intention. For example, the study from Afshardost, Farahmandian, & SadiqEshaghi (2013) revealed that website quality has a significant impact to an individual's desire to purchase on e-commerce websites.

**Decision to Use**

Many researchers have studied about the factors that influence an online purchase (Akbar & James, 2014; Katawetawaraks & Wang, 2011; Brown, Pope & Voges, 2003; So, Wong & Sculli, 2005). From the intention to purchase, consumers tend to be engaged in an online platform for shopping, because of four major reasons: convenience, information, availability of products or services, and cost and time efficiency (Katawetawaraks & Wang, 2011). However, there are not as many researches that cover the decision to use a Restaurant Deals Websites. The study about decision making of the online users from Akbar and James (2014) proposed that there are nine different factors that affect to consumer purchasing decision on the internet ranging from search engines, action website, online shopping malls, convenience, price, brand, refund, to promotion, and security.

**Research Framework**

**Conceptual Framework**

The conceptual framework presents as figure1, the independent variables in this research were social eating behaviour, price and value, promotion offer and website quality. The dependent variable was decision to use in RDW.

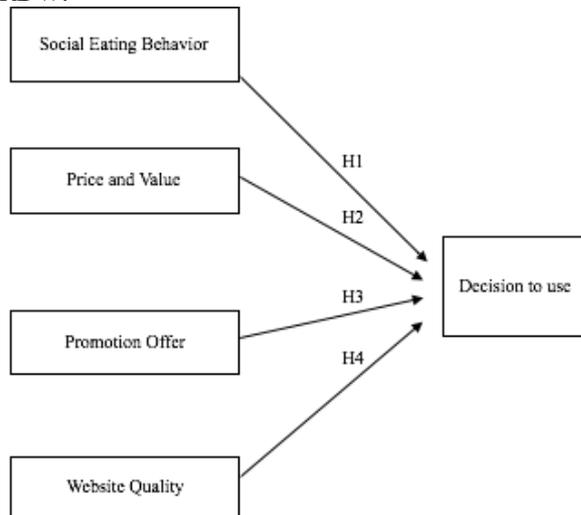


Figure 1: Conceptual framework

**Research Hypotheses**

There are four hypotheses proposed in this study as follows.

H1<sub>0</sub>: Social eating behavior has no relationship with

decision to use Restaurant Deals Website.

H1<sub>a</sub>: Social eating behavior has a relationship with decision to use Restaurant Deals Website.

H2<sub>0</sub>: Price and value have no relationship with decision to use Restaurant Deals Website.

H2<sub>a</sub>: Price and value have a relationship with decision to use Restaurant Deals Website.

H3<sub>0</sub>: Promotion offer has no relationship with decision to use Restaurant Deals Website.

H3<sub>a</sub>: Promotion offer has a relationship with decision to use Restaurant Deals Website.

H4<sub>0</sub>: Website quality has no relationship with decision to use Restaurant Deals Website.

H4<sub>a</sub>: Website quality has a relationship with decision to use Restaurant Deals Website.

**Research Method**

**Methods of Research**

The study has collected a number of data using a quantitative method, through surveys, in order to analyse a large sample size, measure and test reliability (Bryman & Bell, 2011; Kent 2007) between dine-out behavior variables to Gen Y's decision to use Restaurant Deals Websites. Also by analyzing this descriptive research, it was expected to acquire the percentage of general information i.e. gender, age, nationality, marital status, education, monthly income and occupation, with questions that measure the frequency of visiting website, purchasing behaviour, as well as the billing service.

**Population**

The target population is Bangkok based consumers, aged between between 22-35 years old, with some experiences on 'Restaurant Deals Websites.' With time restriction, this research will collect data between February to March 2016.

**Sample Size**

For determining sample size that covers all representative in Bangkok metropolis, the researcher has set the respondents at minimum 384 follow the Krejcie & Morgan table (Krejcie & Eayrle, 1970). In addition, in order to avoid an error during an analysis so the researcher sent out the extra questionnaires to respondents.

**Sampling Procedures**

The researcher implemented a non-probability method; using convenience sampling. This type of technique is convenient and is achievable within a short time with a coverage of large number of respondents (Kent, 2007).

**Research Instrument/ Questionnaire**

In the first part, there are questions to help scanning the respondent that were using Restaurant Deals Websites, using age and location variations. If the answers were 'no', they would have to return the questionnaire and finish answer. The second part

comprising of 24 questions to measure five variables, including social eating behavior, prices and values, persuasion from promotion, website quality and decision to use Restaurant Deals Website. In this part, the research had provided an alternative to answer each questions, based on a five points rating Likert scale - with 1 representing strongly disagree and 5 for strongly agree. The third part of the questionnaire, demographic information i.e. gender, age, nationality, marital status, education, monthly income and occupation will be collected through a close format questions. As for the frequency of visiting website, purchasing behavior, and the way to billing payment service, they will be included in part three.

### Summary of Findings

Table 1: Summary of demographic information

	A majority group	Percent (%)
Nationality	Thai	100
Gender	Female	73.3
Ages	22-25	46
ital status	Single	84.8
tion	achelor's degree	69.7
upation	Employee	76.1
ome	,001-50,000 Baht	62.5
osite of search aurant deal	Wongnai	49.8
quency of hasing in e month ago	times	76.6
verage cost	less than 1,000	81.2
ment service	redit card	63.2

This table shows that the majority of Thai respondents were mostly is female, aged between 20-25 years old, with a minimum education level at Bachelor's degree. Employee is the majority group whereas the major group of respondents in term of monthly income at somewhere between 20,001-50,000 Baht. According to the findings, it was found that the most popular website of the respondent use is Wongnai. In previous of purchased restaurant deals on website in three months ago, the group of respondents bought 1-3 time by has average cost less than 1,000 Baht. The most convenient payment that respondents choose is credit card.

Table 2: Hypothesis testing finding

Hypotheses	Level of correlation	Status
H1 <sub>0</sub> : Social eating behavior has no relationship with decision to use Restaurant Deals Website.	0.532**	Rejected
H2 <sub>0</sub> : Price and value has no relationship with decision to use Restaurant Deals Website.	0.724**	Rejected
H3 <sub>0</sub> : Promotion offer has no relationship with decision to use Restaurant Deals Website.	0.729**	Rejected
H4 <sub>0</sub> : Website quality has no relationship with decision to use Restaurant Deals Website.	0.675**	Rejected

To summaries, the testing results obtained from Pearson's correlation analysis, on Table2 shows that hypothesis testing resulted in support of the conceptual framework related to dine-out factors associating with decision to use Restaurant Deals Website. Social eating behavior and website quality have a moderate relationship with decision to use restaurant deals website. Also, the strong relationship with decision to use Restaurant Deals Website are price and value as well as promotion offer. Obviously, the strongest relationship with decision to use Restaurant Deals Website is promotion offer which has the correlation coefficient at 0.729.

### Conclusion

The research study collects data and information to analyze by using questionnaires to survey the population from the customers in Bangkok aged between 22-35 years old, with some experiences on 'Restaurant Deals Website', at the minimum number of 389 respondents. The purpose of this research study is to identify the extent of which dine-out behavior is related to how Gen Y Use Restaurant Deals Websites. The findings showed connection, as stated in the objectives, that it helped examining the relationship between factors and decision to use Restaurants Deals Websites. As seen, the study has found a statistically significant relationship between four independent variables (promotion offer, price and value, website quality, and social eating behavior) and decision to use, whereas all variables show statistical relationship with it. Therefore, the four null hypotheses are rejected by Pearson correlation measurement.

The dining-out behavior of Gen Y was investigated and analyzed in the demographic factor which in the case, age. Though, it was noted from the previous

research that people who aged between 20 to 30 are the group of people that spends the most time to eat out [47]. However in order to understand how Gen Y use Restaurant Deals Websites, the researcher tested of difference among various groups by using Onaway ANOVA.

Table 3: Test of difference among various age groups

Variable	Mean			Sig
	22-25 years	26-31 years	32-35 years	
Social eating behavior	3.2950	3.8475	3.4667	0.000**
Price and value	3.5036	3.6416	3.5584	0.085
Promotion offer	3.3855	3.6460	3.3131	0.013**
Website quality	3.6078	3.6633	3.4606	0.469
Decision to use	3.1522	3.4011	3.1212	0.012**

From the above table, the value of significance resulted less than 0.05, meaning that people from different age groups, have different social eating behaviour, therefore it must be kept in consideration when companies are providing promotion offer, crafting website quality, however other variables have shown similarities among all ages group level. The ages group between 26 to 31, people have social status and values for dining out and the promotion activities have a favorable impact on their decision to use restaurant deals more than other ages group. So different age groups creates different perception on source social eating behavior, promotion offer and decision to use. Marketing strategy should design by target age range.

### Recommendation from This Study

The researcher suggests that companies that are implementing Restaurant Deals, improvise businesses plan to be able to attract Gen Y customers accordingly, by intensifying promotion offer. Since the promotion of a deal is difficult to control once the promotion deals are purchased, it could result in either positive or negative impressions. Also, people aged between 26-31 are in our target group, they concern about promotion in a website that has co-partner with credit card or mobile phone signals (as AIS, Dtac, True). It is important that website management and other related departments in the organization such as planning, marketing, etc., to cooperate together and create more attractive to the customer and encourage them to use restaurant deals on the website. Also the restaurant deal website businesses should focus on price and value, with the best deals possible, especially during special seasons where people are more likely to spend time with a company such as Valentine's Day or New Year, etc.

Social eating behaviour and website quality are the factor which the restaurant deal website businesses should be focus. The social eating behaviour of Gen Y is how they like to dine out at restaurant with friends and family so the restaurant deal website businesses should decide on deals that combine menus into sets or big portion, to meet the demand of customers (for instance, buy two deals get more discount.) It is recommend that restaurant deal businesses should maintain reliability of website (i.e. quality of content).

### References

- Afshardost, M., Farahmandian, S., & SadiqEshaghi, S. M. (2013). Linking trust, perceived website quality, privacy protection, gender and outline purchase intention. *Journal of Business and Management*, 13(4), 63-72.
- Akbar, S., & James, P. T. (2014). Consumers' attitude towards online shopping: factor influencing employees of crazy domains to shop online. *Journal of Management & Marketing Research*, 14, 1-11.
- Aladwani, A. M., & Palvia, P. C. (2002). Developing and validating an instrument for measuring user-perceived web quality. *Information & Management*, 39, 467-476.
- Alvarez, B. A., & Casielles, R. V. (2005). Consumer evaluations of sales promotions: the effect on brand choice. *Europe Journal of Marketing*, 29(1/2), 54-70.
- Brown, M., Pope, N., & Voges, K. (2003). Buying or browsing? An exploration of shopping orientations and online purchase intention. *European Journal of Marketing*, 37(11/12), 1666-1684.
- Bryman, A., & Bell, E. (2011). *Business Research Methods*. 3rd Edition. London, UK: Oxford University Press.
- Chakraborty, R. K., Hossain, M., Azad, F. H., & Islam, J. (2013). Analysing the effects of sales promotion and advertising on consumer's purchase behaviour. *World Journal of Social Sciences*, 3(4), 183-194.
- Chu, C. W., & Lu, H. P. (2007). Factors influencing online music purchase intention in Taiwan. *Internet Research*, 17(2), 139-155.
- Dodds, W., & Monroe, K. (1985). The effect of brand and price information on subjective product evaluations. *Advances in Consumer Research*, 12, 85-90.
- ETDA | Electronic Transactions Development Agency Public Organization. (2015, November 20). Retrieved February 20, 2016, from <http://www.it24hrs.com/2015/etda-survey-e-commerce-2558/>
- ETDA | Electronic Transactions Development Agency Public Organization. (2015, December 22). Retrieved February 20, 2016, from <http://www.it24hrs.com/2015/survey-thailand->

- online-mega-sale-2015/  
Huang, H.-C., Chang, Y.-T., Yeh, C.-Y., & Liao, C.-W. (2014). Promote the price promotion: The effect of price promotions on customer evaluations in coffee chain stores. *International Journal of Contemporary Hospitality Management*, 26(7), 1065-1082.
- Katawetawarakas, C., & Wang, C. L. (2011). Online Shopper Behavior: Influences of Online Shopping Decision. *Asian Journal of Business Research*, 1(2), 66-74.
- Kent, R. (2007). Marketing research: approaches, methods and applications in Europe. London: Thompson Learning.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30, 607-610.
- Neha, S., & Manoj, V. (2013). Impact of sales promotion tools on consumer's purchase decision towards white good (refrigerator) at Durg and Bhilai region of CG, India. *Research Journal of Management Sciences*, 2(7), 10-14.
- Obeid, M. Y. (2014). The effect of sales promotion tools on behavioral responses. *International Journal of Business and Management Invention*, 3(4), 28-31.
- Paul, J., & Rana, J. (2012). Consumer behavior and purchase intention for organic food. *Journal of Consumer Marketing*, 29(6), 412-422.
- Pawan, M. T., Laggat, J., & Marzuki, K. M. (2014). Study on Generation Y dining out behavior in Sabah, Malaysia. *International Journal of Business and Social Science*, 5(11), 92-100.
- Poddar, A., Donthu, N., & Wei, Y. (2009). Web site customer orientatins, Website quality, and purchase intentions: The role of Web site personality. *Journal of Business Research*, 62, 441-450.
- SCB Economic Intelligence Center, Insight. (2014, November 13). Capturing Thai Gen Y consumers. Retrieved from <https://www.sceic.com/en/detail/product/276>
- Setiawan, R., & Achyar, A. (2012). Effects of perceived trust and perceived price on customers' intention to buy in online store in indonesia. *Asean Marketing Journal*, 1(4), 26-36.
- So, W. M., Wong, T. D., & Sculli, D. (2005). Factors affecting intentions to purchase via the internet. *Industrial Management & Data Systems*, 106(9), 1225-1244.
- Srividhya, N. (2014). Eating Out habit of individuals – an analytical study with special reference to puducherry City). *International Journal of Business and Management Invention*, 3(6), 38-44.
- Swait, J., & Sweeney, J. C. (2000). Perceived value and its impact on choice behavior in a retail setting. *Journal of Retailing and Consumer Services*, 7(2), 77-88.
- Warde, A., & Martens, L. (2000). Eating out: social differentiation, consumption and pleasure. Massachusettes, USA: Cambridge University Press.
- Wolfenbarger, M., & Gilly, M. C. (2003). eTailQ: dimensionalizing, measuring and prediction detail quality. *Journal of Retailing*, 79, 183-198.
- Yoo, B., Donthu, N., & Lee, S. (2000). An examination of selected marketing mix elements and brand equity. *Journal of the Academy of Marketing Science*, 28(2), 195-211.

## Key Factors Related to Homebuyers' Decision Making on Purchase First Home in Bangkok, Thailand

Keerati Sahachaiyunta<sup>1\*</sup>, and Dr. Gloria Chavez<sup>2</sup>

<sup>1</sup>First affiliation, Graduate school of Business, Assumption University, Bangkok, 10240, Thailand. <sup>2</sup>Second affiliation, Graduate school of Business, Assumption University, Bangkok, 10240, Thailand.

\*Corresponding author. Email: [ksah008@hotmail.co.nz](mailto:ksah008@hotmail.co.nz)

### Abstract

The purpose of this research was to identify the factors that affect home buyers' decision on first home purchase in Bangkok, Thailand. Since the purpose of purchasing first home is mainly for the owners' shelter, it is one of the life's essentials. Government around the world are taking this issue seriously, as well as in Thailand. A survey questionnaire was designed and distributed to 384 potential home buyers and home owners, who live in Bangkok, Thailand. The data was used to test and analyze the relationship of intrinsic attributes, extrinsic attributes, subjective norms, mobility, community facilities, community social capital, and finance toward home buyers' decision making of first home purchase. The findings showed the results, wherein all seven factors have statistical significant relationship with home buyers' decision making of first home purchase.

**Keywords:** Decision making, home buyer, first home, intrinsic attribute, extrinsic attribute, subjective norm, environment, mobility, community facilities, community social capital, financ

type, size, and interior design of the house (Cupchik *et al.*, 2003; Greene & Ortuzar, 2002).

### Introduction

The issue of unaffordability to purchase first home by low to middle income people is one of the concerns of many nations around the globe. For Thailand, the trend of the housing market is still in the upward pattern even though the economy of Thailand is not performing well compared with the other AEC countries. The Bank of Thailand ("Bangkok's condo", 2015) indicated that during 2014 Thailand's house price index rose by 4.9%, and 14% for condominium. Condominium and suburban town-home are being considered first on their list, because of limited budget. In addition, foreigners are allowed by Thai law to purchase condominium, which is one of the factor condominium's price over-value and of course affect first home buyers. Thai government also implemented first home policy for helping Thai citizens to acquire first home by subsidising part of the house's price back in 2011.

It was mainly for boosting the economy purpose, however the program was discontinued. Therefore the researchers would like to determine the relationship between intrinsic attribute, extrinsic attribute, subjective norms, mobility, community facilities, community social capital, and finance.

### Material and Methods

#### Literature Review

##### - Housing attributes

When people consider purchasing certain products, they usually analyze related attributes that they will receive, rate the importance and benefits of each item, and conclude whether it is worth or equal to the amount of money they are willing to spend or not (Kotler & Keller, 2011).

Attributes can be categorized into two main areas; intrinsic and extrinsic. Intrinsic attributes are related to the product itself (Joel *et al.*, 2007), these include the

Under extrinsic attributes, the related elements are design and outside space of dwelling (Bhatti & Church, 2004). Moreover, Hoang (2011) included living room and bedroom area, design, and complex facilities questions in his survey. The results showed that young consumers place importance on facilities for their children, and prefer location rather than a large area of living space.

##### - Subjective norm

Subjective norm is pressure from family members, friends, or surrounding people that can impact on a person's decision making. (Kim & Han, 2010). Al-Nahdi (2015) found that subjective norm has a significant influence to Saudi Arabian on home purchase. In addition, subjective norms is one of the elements in the theory of planned behavior developed by Ajzen (1991). This theory was used to predict human's behavior in the real world. In support, the research carried out to investigate the impact of family members on purchasing retirement home conducted by Livette (2002), exposed that family members have great influence on purchase decision, especially adult children and spouse. Moreover, real estate agent is not considered by most of the respondents, since they want to make a sale and do not give sincere advice. Furthermore, Levy & Lee (2004) were interested particularly in family members' influences in home purchase decision. The study attempted to identify the role of family members in each stage of home buyers' decision making process. The findings revealed that in the family with young children, women have more power as the initiator than husband. On the other hand, both parties tend to have equal influence for the family without children.

##### - Environment of housing

When considering environment, it is not only about the surrounding area of the dwelling (Wu, 2009). Good quality housing environment can impact future lifestyle. Other than the housing product itself, Kauko (2007) claimed that location is more influential to homebuyers. Location factor includes items such as; distance from city center or workplace, closeness with service providers around the housing area.

Wu (2009) also adjusted his model and questions of social capital factor from Kellekci and Berkoz (2006), and Gober *et al.* (1993) to be suitable with Guangzhou's housing market. He included items like: sense of belonging, security, neighborhood and density. These factors are influential in the purchase decision and satisfaction of consumers. Likewise, a similar research was done on young Vietnamese's household by Hoang (2011), the questions are on; safety, neighborhood, and proximity to local facilities. He found that young consumers prefer area close to city center, since it will be closer to local facilities.

#### - Finance

Sengul, Yasemin, and Eda (2010) stated that the financial elements play an important role in home purchasing. House price, mortgage loan, and terms of payment are important elements to be considered under financial factor (Yongzhou, 2009). Home loan interest rate, obtainable amount of house loan, and length of time for payment are also important financial factors as stated in the Daly *et al.*'s (2003) Study. Additionally, finance was included in one of the hypotheses tested in Reed and Mills' study (2006). The result showed that the respondents accounted over 30% of this issues in their first home decision making. Reed and Mills (2006) included items such as home loan interest rate, price of house, income of household, and ability to save up on house deposit.

#### - First-home purchase decision

Purchasing first home is one of the milestones in most people's lives. Kotler and Keller (2011) defined customer behavior as the way an individual, group, and organization satisfy their needs and wants by choosing, buying, and disposing goods, services, experience, and ideas. They further described the five stages of decision making process; 1) problem recognition 2) information search 3) alternative evaluation 4) purchase decision 5) post-purchase evaluation. By understanding behavior of customers, the marketing strategies can design and implement more effective (Zeng, 2013).

In support, Levy & Lee (2004) classified the role of home buyers and influencers into six groups; initiator, influencer, information gather, gate keeper, decision maker, and purchaser. They interviewed real-estate agents in order to understanding more about the housing market. The real estate agents suggested the role which can be related to the decision making stages. Five stages were identified by the interviewees in relation to home purchasing decision making: 1)

recognition of the problem and needs, 2) specification of housing product, 3) information gathering, 4) evaluating alternative choices, 5) finalizing the decision.

#### Research Framework

The conceptual framework of this study was developed based on four research models. The first model was proposed by Al-Nahdi *et al.* (2015) who investigated the "Factors affecting purchase behavior in real estate in Saudi Arabia." The second model focused on housing environment from Wu's (2009) research, which investigated the variables of mobility, community facilities, and community social capital. The third model was based on a study conducted by Zeng (2013), whose study was on attributes toward home buyers' purchase decision in Wuhan, China. Lastly, the fourth model by Phan (2012) focused on; financial status, environment, distance, living space, and features. As key factors that affect Vietnamese customers' purchase decision.

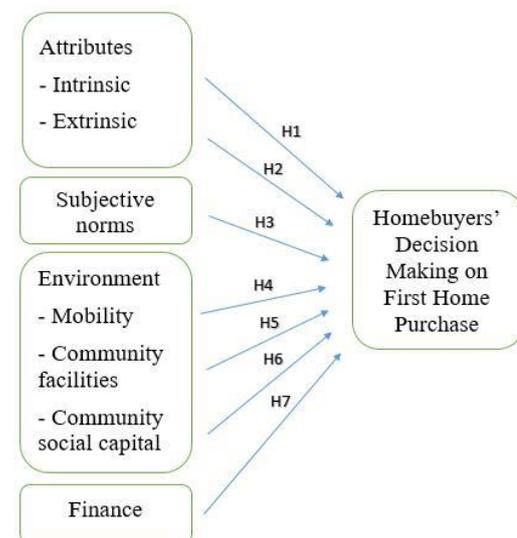


Figure 1: The conceptual framework

**Source:** Developed for this research

The conceptual framework is modified to be suitable with home buyers who live in Bangkok. Four variables, attributes, subjective norms, environment, and finance, are the independent variables for this research and were used to investigate the relationship toward the dependent variable or home buyers' decision making in first home purchase in Bangkok, Thailand.

H1a: There is a relationship between intrinsic attributes and homebuyers' decision making on purchasing first home

H2a: There is a relationship between extrinsic attributes and homebuyers' decision making on purchasing first home

H3a: There is a relationship between subjective norm and homebuyers' decision making on purchasing first home

- H4a: There is a relationship between mobility and homebuyers' decision making on purchasing first home
- H5a: There is a relationship between community facilities and homebuyers' decision making on purchasing first home.
- H6a: There is a relationship between community social capital and homebuyers' decision making on purchasing first home.
- H7a: There is a relationship between finance and homebuyers' decision making on purchasing first home.

**Research Methodology**

This study used a descriptive and correlational research design. Descriptive research is used to determine and describe the characteristics of a group of population (Shields *et al*, 2013). Correlational study is a quantitative method of research in which there are two or more variables. The objective is to determine if there is a relationship between variables (Cavusgil *et al*, 2009).

A self-administered questionnaire was used to gather the data for this research. The questionnaire used a five point Likert scale focusing on the factors that influence the decision making on first home purchase in Bangkok, Thailand.

The first part of the questionnaire consisted of two screening questions, to classify the target respondents. The second part contained 32 questions, consisting of four questions for each variable. The four main factors included attributes, subjective norms, environment, and finance. The attributes factor is divided into two sub-variables; intrinsic and extrinsic attributes. Environment is divided into three sub-variables; including mobility, community facilities, and community social capital. The last part includes the demographic characteristics of respondents, which included gender, age, income, status, and occupation.

This research used a non-probability sampling method, where each individual in the population has an unequal chance to be chosen to participate in data gathering survey by the researchers (Shield *et al.*, 2013). In order to gather the data to best represent the target population, the researchers used two techniques; convenience sampling and snowball sampling method.

The researchers selected the "House and Condo" event held in Mega Bangna Mall and Don Muang district business area to distribute the questionnaire survey, because people who were at the event and working people have purchasing power, intention and/or in the current stage of making decision about home purchasing. The questionnaire was also distributed through online based website.

There were two stages in this research. The first stage was developed through a face-to-face interview with three homebuyers at Huamak campus, Assumption University related to the questions developed by the researchers. The interviewees were asked individually to review each each questions and independent variables in

the survey questionnaire to ensure the context and questions are clear. The researchers then distributed 30 sets of questionnaire survey around the campus which used to generate the reliability test. The Cronbach Alpha for the reliability test is 0.847. The researchers then proceeded to the next stage of data gathering.

The second stage was the data collection, where online survey and paper form survey were used. Hence, the convenience sampling technique was used to distribute the survey and to carry out the paper form questionnaire.

**Results and Discussion**

The statistical analysis of the collected data from a sample of 384 respondents using a statistical software is presented here. The first part of the chapter presents the reliability analysis of the research instrument. The second part presents a descriptive analysis using frequency and percentage. Lastly, the third part presents the inferential analysis by using Pearson Correlation Coefficient.

**Reliability Analysis**

Table 1: Summary of Reliability Analysis

Variable	Alpha Test ( $\alpha$ -Test)
Intrinsic Attribute	0.776
Extrinsic Attribute	0.765
Subjective norm	0.704
Mobility	0.803
Community Facilities	0.824
Community Social Capital	0.701
Finance	0.86
Purchase Decision	0.721
<b>Total</b>	<b>0.847</b>

The overall Cronbach's Alpha result of the questionnaire from table 1 is equal to 0.847, which is greater than 0.7. It indicated that all items in each variable is acceptable and reliable and the thirty respondents understood and answered consistently.

**Descriptive Analysis**

Table 2: Summary of Descriptive Analysis

Variable	<i>f</i>	%
<b>Gender</b>		
Male	120	31.3
Female	264	68.7
<b>Age</b>		
21-27	114	29.7
28-34	124	32.3

35-41	67	17.4
42-48	33	8.6
49-55	27	7.0
Above 55	19	5.0
<b>Income per month</b>		
10,000-30,000	204	53.1
30,001-45,000	71	18.5
45,001-60,000	45	11.7
60,001-75,000	27	7.0
Above 75,000	37	9.7
<b>Status</b>		
Single	216	56.3
Married	150	39.1
Divorced/widowed	6	1.6
Other	12	3.0
<b>Occupation</b>		
Business owner	139	36.2
Office worker	140	36.5
Work for government	23	6.0
Freelance	22	5.7
Agriculture	1	0.3
Other	59	15.3
<b>Total</b>	<b>384</b>	<b>100</b>

Table 2 revealed that most of the respondents or 68.7% (264) are female and 31.3% (120) are male. Moreover, the respondents' age are as followed; 32.3% (124) are between 28 – 34 years old, 29.7% (114) are between 21-27 years old, 17.4% (67) are between 35-41 years old, 8.6% (33) are between 42-48 years old, 7.0% (27) are between 49-55 years old, and 5.0% (19) are above 55 years old.

Moreover, most respondents or 56.3% (216) are single, 39.1% (150), are married, 1.6% (6), are divorced/widowed, and 3.0% indicated their status as others. Lastly, for the occupation, 36.2% (139) of the respondents are business owners, 36.5% (140) are office workers, 6.0% (23) are government officers, 5.7% (22) are freelancer, and 0.3% (1) are in agriculture.

### Inferential Analysis

A Statistical program was used to test the relationship between the variables using Pearson correlation.

Table 3: Hypotheses Testing Results

Hypothesis	p-value	Coefficient	Level of Correlation	Results
H1	0.000	0.230	Weak	Rejected H10
H2	0.000	0.235	Weak	Rejected H20
H3	0.000	0.379	Moderate	Rejected

				H30
H4	0.000	0.205	Weak	Rejected H40
H5	0.000	0.306	Moderate	Rejected H50
H6	0.000	0.256	Weak	Rejected H60
H7	0.000	0.384	Moderate	Rejected H70

Table 3 reveals the hypothesis testing results, wherein the overall p value is 0.000 or less than 0.01 (0.000 < 0.01). This indicates that intrinsic attribute, extrinsic attribute, subjective norms, environment; mobility, environment; community facilities, environment; social capital, and finance have a statistical significant relationship with home buyers' decision making of first home purchase. Thus, all alternative hypotheses were accepted.

All seven hypotheses are aimed at determining the relationship between the factors of the home buyers' decision making toward their first home purchase.

The analysis for the first and second hypotheses on Housing attributes, shows that the Coefficient (r) is equal to 0.230 and 0.235 respectively which indicate a weak relationship between both intrinsic and extrinsic attributes and decision -making.

The analysis for the third hypothesis on subjective norms shows that the Coefficient (r) is equal to 0.379 which indicate a moderate relationship between subjective norms and decision -making.

The analysis for the fourth to sixth hypotheses which include the variables under housing environment, such as mobility (H4), community facilities (H5), and community social capital (H6) show a weak relationship with a Coefficient (r) of H4: 0.205, and H6: 0.256 respectively. In addition, the analysis for the fifth hypothesis on Community facilities (H5) shows that the Coefficient (r) is equal to 0.306 which indicate a moderate relationship.

Lastly, the analysis for the seventh hypothesis which is on the finance variable show a Coefficient (r) of 0.384 reveal a moderate relationship between finance and home buyers' decision making of first home purchase.

### Limitation, Conclusions, and

#### Recommendations

#### Limitation

The researchers aimed to gather data from people who live in Bangkok Area. Moreover due to time constraints which is from February to March 2016, the survey cannot be conducted in all districts in Bangkok. Therefore, the researchers used convenience sampling and snow ball sampling method, and gathered data from

House & Condo events held at Mega Bangna and Don Muang district office area in Bangkok, Thailand.

### **Conclusions**

The main objective for this research was to investigate the relationship of attributes, subjective norms, environment, and finance towards home buyers' decision making on first home purchase in

Bangkok, Thailand. From the findings, it can be concluded that all seven factors have a relationship toward home buyers' decision making on first home purchase, which both attributes, environment: mobility, and environment: community social capital have a weak relationship. Moreover, subjective norms, environment: community facilities, and finance have a moderate relationship.

The demographic profile of the respondents shows that majority of the respondents are female (68.8%), whose age range is between 28-34 years old (32.3%), have monthly income between 10,000 to 30,000 Baht (53.1%), are single (56.3%), and are office workers (36.5%).

### **Recommendations.**

The findings of this study presented the relationship of all the tested variables towards decision making of Bangkok home buyers on first home purchase. Majority of the tested hypotheses have shown a weak relationship; intrinsic attribute, extrinsic attribute, environment: mobility, and environment: community social capital. The reason behind this may be that an inexperienced homebuyer, since it is the first home purchase. The homebuyers may not have a clear sense of which factors are more important to them, hence subjective norms come in to play in this situation for their decision. In addition, unsurprisingly from the findings that they placed greater importance on finance because they are able to see and control it.

Firstly, finance is definitely an important factor for home buyers, and the findings showed a moderate relationship. Real estate developers can partner with banks, and give out attractive housing loans, special interest rates and attractive down payment terms to suit this target group. Furthermore, the government banks or government can help home buyers in relation to financial support, which focuses on low to middle income people.

The research also found that subjective norms have a moderate relationship with first home buyers' decision. The marketing team can implement the marketing strategy which enables the communication with the group of people around the buyers, not the traditional way of communicating with the targeted buyers only. An example would be advertising on television in non-prime time, radio channel, and internet which communicate with older audiences, who may be parents and other family members of the first home buyer.

Under housing environment, which includes mobility, community facilities, and community social capital, the results show these variables influence the decision making of home buyers in first home purchase.

Besides, community facilities have a moderate relationship, whereas the other two variables have a weak relationship. Policy makers or national housing authority can use these results to have a better understanding and implement policies to satisfy the real needs of citizens. Currently, the

National Housing Department aims on low income citizens first because they are really in need, and may have difficulty in finding a home that is affordable and is located in a good area for their business and education for their children. Low to middle income homebuyers as well experience similar difficulty because the price of housing in central Bangkok is incredibly high. The National Statistical Office (Household Socio Economic, 2014) indicated that 47% of Bangkok people are in the low to middle income range (10,000-30,000), the focus can also be on this target group. The new project of "Flat Din Daeng" is now in planning stage and in prime location. Other than focusing on low income people, the low to middle income and/or first home buyers can be included. The additional project may place the focus first on community facilities, such as having better park design, attracting school or tutoring facilities to open in the area, having health care services or hospital inside the complex, and organizing certain areas inside for local market and retail business. As well as, mobility and community social capital should also be concerned for the developers; such as sky bridge that connects the complex to BTS and MRT, tenants screening process, and tighter security.

Lastly, even the weak relationship is shown, housing attributes affect the decision making of home buyers. Developers and real estate companies should focus on features of the product to target first home buyers. Interior design of the room has a mean result equal to 4.24, which is high, as well as size and number of bedrooms (4.11). Hence, real estate developers should place importance on interior design first, followed by size and number of bedrooms, and size of living room and kitchen. Under extrinsic attributes, "exterior design" has outscored the other variables, with a mean equal to 4.21. The developers should focus on exterior design first, followed by public facilities, garden design, and front gate and exterior wall.

### **Further Research**

Due to time constraints this study restricted the researchers to conduct the study only in Bangkok. Hence the following recommendations are forwarded: 1) study of a wider target population; such as central province, or even the whole country, 2) focus only on low to middle income people who are in the stage of purchasing first home, 3) investigate the differences of each group's characteristics and factors that influence decision making in purchasing first home, 4) focus on particular factors only, and rank by their importance.

The researchers only focused on seven variables: intrinsic attributes, extrinsic attributes, subjective norms, and environment: mobility, environment: community facilities, environment: community social capital, and finance. There are several other factors that may also influence decision making of first home buyers; such as attitudes, economy, social, and promotion.

### References

- Ajzen, I. (1991). *The Theory of Planned Behavior*. Organizational Behavior and Human Decision Process, 50, 179-211.
- Al-Nahdi, T. S., Nyakwende, E., Banamah, A. M., & Jappie, A. A. (2015). Factors Affecting Purchase Behaviour in Real Estate in Saudi Arabia. *International Journal of Business and Social Science*, 6(2). Retrieved from [www.ijbssnet.com](http://www.ijbssnet.com)
- Berkoz, L., Turk, S. and Kellekci, M. (2009), "Environmental quality and user satisfaction in mass housing areas: the case of Istanbul", *European Planning Studies*, 17(1), 161. Bhatti, M., & Church, A. (2004). Home, the culture of nature and meanings of gardens in late modernity, *Housing Studies*. *Housing studies*, 19(1), 37-51.
- Cavusgil, S. T., & Riesenberger, J. (2009). *Conducting market research for international business*. Business Expert Press.
- Cupchik, G. C., Ritterfeld, U., & Levin, J. (2003). Incidental learning of features from interior living spaces. *Journal of Environmental Psychology*, 23(2), 189-197.
- Daly, J., Gronow, S., Jenkins, D., & Plimmer, F. (2003). Consumer behavior in the valuation of residential property: A comparative study in the UK, Ireland and Australia. *Property Management*, 21(5), 295-314. doi:10.1108/02637470310508653.
- Gober, P., McHugh, K.E. and Leclerc, D. (1993), "Job-rich but housing poor: the dilemma of a Western amenity town", *Professional Geographer*, 45(1), 12.
- Greene, M., & De Dios Ortúzar, J. (2002). Willingness to pay for social housing attributes: a case study from Chile. *International Planning Studies*, 7(1), 55-87.
- Hoang, T. L. (2011). A study on housing preference of young households using stated-preference approach. Unpublished master's thesis. School of Architecture and the Built Environment, Stockholm, Sweden.
- Joel, E., Carmina, F., & Carlos, F. (2007). The role of intrinsic and extrinsic quality attributes on consumer behavior for traditional food products null. *Managing Service Quality: An International Journal*, 17(6), 681-701. doi:10.1108/09604520710835000
- Kauko, T. (2007), "An analysis of housing location attributes in the inner city of Budapest, Hungary, using expert judgements", *International Journal of Strategic Property Management*, 11, 209.
- Kellekci, O. L. and Berkoz, L. (2006), "Mass housing: user satisfaction in housing and its nvironment in Istanbul, Turkey", *European Journal of Housing Policy*, 6(1), 77-99.
- Kim, Y., & Han, H. (2010). Intention to pay conventional-hotel prices at a green hotel—a modification of the theory of planned behavior. *Journal of Sustainable Tourism*, 18(8), 997-1014. <http://dx.doi.org/10.1080/09669582.2010.490300>
- Kotler, P., & Keller, K. (2011). *Marketing management 14th edition*. Prentice Hall.
- Levy, D. S., & Lee, C. K. (2004). The influence of family members on housing purchase decisions. *Journal of Property Investment & Finance*, 22(4), 320-338. doi:10.1108/14635780410550885
- Livette, M. (2007). "Influencer and other "buying" roles in the decision-making process of retirement housing purchasers", *Property Management*, 25(3), 242 – 256.
- Phan, T. S. (2012). Key Factors affecting House Purchase Decision of Customers in Vietnam. Unpublished master's thesis. University of Economics Ho Chi Minh City, Ho Chi Minh, Vietnam.
- Reed, R., & Mills, A. (2007). Identifying the drivers behind housing preferences of first-time owners. *Property Management*, 25(3), 225-241. doi:10.1108/02637470710753611
- Sengul, H., Yasemin, O., & Eda, P. (2010). The assessment of the housing in the theory of Maslow's hierarchy of needs. *European Journal of Social Sciences*, 16(2), 214-219. Shields, P. M., & Rangarajan, N. (2013). A playbook for research methods: Integrating conceptual frameworks and project management. New Forums Press.
- Wu, F. (2010). Housing environment preference of young consumers in Guangzhou, China: Using the analytic hierarchy process. *Property Management*, 28(3), 174-192. doi:10.1108/02637471011051318
- Yongzhou, H. (2009). Housing price bubbles in Beijing and Shanghai. *International Journal of Housing Markets and Analysis*, 3(1), 17-37.
- Zeng, R (2013). 'Attributes influencing home buyers' purchase decisions: a quantitative study of the Wuhan residential housing market', DBA thesis, Southern Cross University, Lismore, NSW.
- Website  
Household Socio Economic. (2014). National tatistical Office. Retrieved from

[http://web.nso.go.th/en/survey/house\\_seco/socio\\_13\\_Whole%20Kingdom.htm](http://web.nso.go.th/en/survey/house_seco/socio_13_Whole%20Kingdom.htm)  
Social Capital. (n.d.). Better Together. Retrieved from  
<http://www.bettertogether.org/socialcapital.htm>

Bangkok's condo index up 14%, despite the politics.  
(2015, May 1). Global Property Guide.  
Retrieved from  
<http://www.globalpropertyguide.com/Asia/Thailand/Price-History>

## Multidimensional Scialing of Ready-To-Drink Milk Attributeds Differences: A Case Study of Ready-To-Drink Cow & Soy Milk

Preeyapatotis Kanchana-Olasiri<sup>1</sup> and Asst. Pfof. Dr. Chittipa Ngamkroeck<sup>2</sup>

*Graduate School of Assumption University in Thailand*

### Abstrack

**Purpose:** To identify groups of (new) product attributes based on Ready-To-Drink Cow Milk (RTDM) and Ready-To-Drink Soy milk (RTDS) of persons, whose age is between 30-50 years old. In order to specify the space of attributes for new product development (NPD).

**Design and Methodology:** This study adopts exploratory sequential mixed method analysis designs with qualitative and quantitative to syndetic the cumulative data and interpretation. The qualitative pilot study was conducted with 40 respondents of RTDM and RTDS drinkers to form the list name of preference attributes. Moreover, this study has distributed a questionnaire to 140 respondents, who are drinkers of RTDM or RTDS more than 4 times a week. However, non-probability sampling procedure with purposive and convenience techniques were applied to gain the most righteous target respondents. Multidimensional scaling (MDS) creates at least two dimensions based on respondents' perception, thus NPD has been generated.

**Findings:** There are originally 14 attributes effects RTDM and RTDS consumption choices of adult drinker. Finally, MDS creates two dimensions of drinkers' perception which are namely as "Functional Health Booster" and "Inner Health Balance." The marketer and R&D team will further process such discovered new product concept for screening later on.

**Keyword:** Multidimensional scaling (MDS), New product development (NPD), Ready to drink (RTD)

### 1. Introduction

New product development (NPD) is an evolution, renovation of the existing product and new development, though research and development team effort (Kotler and Armstrong 2010). A New product has been refined as thoughtfulness to pay to consumer (Hoffman, *et at*, 2007) and defined as the most challenging tasks for the manager to develop and launch of successful new products (Hauser, *et al* 2005). Moreover, new product development point out the finest hope of company in term of prospective growth. Recently, most of existing research on new product development exist marketing to define and appraise the needs of customer, market testing and product launch, which focus on the first stage of task attaining product given its specifications. Bhattacharya, Krishnan and Mahajan (1998).

New product development (NPD) speed is becoming demanding, as today's product life cycle shortens and obsolescent quickly (Amue & Adiele (2012).). From the study of Bhuiyan (2013), Crawford (1987) state that the rigid realities shown the majority of new product failure rate around 25-45 percent. Today's ready to drink (RTD) milk market in Thailand, it is highly competitive market, which already saturated and slightly growth less than 4% over 5 years with market size around 66,323 million Baht (The Nielsen company, 2015). However, 2 biggest product in the RTD liquid milk market is RTD cow milk (RTDM) and RTD soy milk (RTDS). Number 1 is RTDM but RTDS is the 2<sup>nd</sup>

rank of milk choice for consumer which has continuously impressive growth for more than 5 years. Mutual issues of RTDM and RTDS

Chaiwanon *et al.* (2000) states that a cow and soy milk contain the similar protein content [soybean of water, 1:8 (w/v)] with close amino acid makeup, excepting sulfur containing amino acids which are incomplete in soy milk. Cheman *et al.* (1989) defines soy milk as healthy beverage, which fill-in dairy cow milk as cheaper with high-quality protein and alternative for cow milk protein allergy people and lactose intolerant.

#### *Consumer preference shift after 30 years old*

Since customers between 30-50 years old are the largest group of customers on consuming RTD milk product and have high purchasing power. This age group also the highest switcher from RTDM to RTDS because they start to concern about their health and believe that some of RTDM attribute might not good enough for their health. Last few years, RTDS drinker has expanded and eat up RTDM territory, the most important thing to achieve it is to study on the group of attribute of products of RTDS which has been continuously developed and improved to serve more complexity needs of the consumers and compare with RTDM attribute to find the opportunity for new product development of RTDM/RTDS which able to satisfy complexity needs of the target group.

New Product development is extremely important in the saturated market situation of RTD liquid milk and crowded with the choices in the market today, especially

RTD cow milk (RTDM) and RTD soy milk (RTDS). This few years RTDM was struggling to lose market share to RTDS focus on the drinking age 30-50 years old.

The objective of this study is to identify the dimension of attributes affecting RTDM and RTDS milk choice and identify the opportunity of the space of attributes to find the idea concept for NPD to serve adult RTDM in the future. New product development process, to Up-front in homework in ideation stage is very important (Bhuiyan, 2013) because all the direction and effort of R&D will be put toward the idea concept to find further innovation. One of the key source of the new idea concept is consumer insight and perception which might not compatibles to normal statistical.

New product development (NPD) is an evolution, renovation of the existing product and new development, though research and development team effort (Kotler and Armstrong 2010). A New product has been refined as thoughtfulness to pay to the consumer (Hoffman, *et al*, 2007) and defined as the most challenging tasks for the manager to develop and launch of successful new products (Hauser, *et al* 2005). Moreover, new product development point out the finest hope of company in term of prospective growth. Recently, most of existing research on new product development exists marketing to define and appraise the needs of customer, market testing and product launch, which focus on the first stage on task attaining product given its specifications. Bhattacharya, Krishnan and Mahajan (1998).

## 2. Literature Review

### New product development (NPD)

Regarding to Bhuiyan (2013), conclude that the complex NPD projects should define criteria's success factors (CSF) in each stage and delivered together in a framework. The purpose of Bhuiyan (2013) study is to present a framework of criteria's success factors (CSF), metrics, and tools and techniques for implementing metrics for each stage of the NPD process. The summarized of the paper shown NPD criteria's success factors (CSF), tools and technique of each stage of the NPD process. The result shown that CSF of each stage as follows; clear strategy and communication for strategy stage, consumer focus for the idea generation stage, Up-front homework for screening stage, speed for development stage and product functionality and customer acceptance for the last stage of production. Several studies have confirmed the most important factors which guarantee commercial success reflect on each factor provide benefit and translate into an operational aspect of the NPD process. The study of Daniel (1961) and Rockart (1979) reported that the ideas are essential to determine success factors in the NPD process, and evaluate degree of success. The challenge of successful product innovation is the design process which considers in timely manner how quickly it is and effectiveness of the ideation stage until a successful launch.

**Attribute** From a literature review research paper of Ruiz and Tomaseti (N.A), Hauser and Clausing (1998) concluded that product attribute could be defined as three types; characteristics, benefits and image. Attributes were defined as characteristics related to physical properties, beneficial attribute related to task referent and image attributes permit consumer identify themselves with the group. In summary, show that attributes as functional products added has a low effect, but need to dramatize more on product characteristic which associate with real benefit. In the study of Jane Lu, HsuYu-Tso Lin, (2006) evaluated product attributes and demographic factors that influenced purchases of milk products in Taiwan and identify that different segment of consumer will value the different attribute of fluid milk product. The study reported that high income consumers purchase larger quantities of fluid milk. The taste and flavor of fluid milk products are the attributes that consumers value. Fat content, calcium content, and whether the products have the certified labels are key attribute affect purchasing quantities of fluid milk. The Overall beneficial bacterium is key attributes of yoghurt products. Product attributes came from 2 sources.

### Multidimensional scaling (MDS)

From literature several research MDS has been used in term of analyze to identify the space of similarity and dissimilarity of objects. Petiot, J. F. and Grognet, S. (NA) had applied multidimensional scaling to study the psychological state of people to group the perceptual dissimilarities to distances in a metric space for new product design in term of describing in subjective term of human assessment such as feeling, impression and preference of the group of product attribute in a more rational way as input into the product design process. The result of the research identified the perceptual space as the direction for the designer to develop the higher performance of new product. Regarding to Jaworska, N. and Chupetlovska-Anastasova, A. (2009),

Multidimensional scaling (MDS) is a procedure for identifying the space of distances between the most correlate dots to a group of dissimilarities such as a psychological experience, or acquired indirectly as in correlation matrices computed on rectangular data. From the research of Karamathullah *et al* (2002) stated that MDS as an important interpretative device for the purpose of grouping.

The goal of the analysis is to detect meaningful underlying dimensions that allow the researcher to analyze observed similarities or dissimilarities among the investigated objects. Pandian *et al* (2008) attempted to segment milk production in the state of Tamil Nadu into homogenous milk zones based on the resource endowments favorable for the development of the dairy industry. The result shown MDS helped categorized four groups of districts were carved out based on their proximity and the districts were identified in different zones. Namey *et al* (2007) defined MDS is another useful graph-theoretic technique that is based on similarity matrices. Aim to explore strategies for

combining qualitative and quantitative analysis techniques for the analysis of large, qualitative data sets. The result shown that MDS could create some particular group of interest, also compare and interpret the qualitatively. Schiffman *et al.* (1981) describe MDS as a powerful numerical procedure which can rationalize data by representing the similarities of substance spatially as in a map. Johnson and Wichern (2002) concluded that MDS techniques allow the researcher to observe similarities (distances or proximities) between

N pairs of items, MDS techniques allow the researcher to find the distances between the spot match as well as proximities of original distance which represent a group of items in the lowest possible dimensions in space.

**Pilot Study** The researcher conduct interview question to get the idea from 5 RTDM drinkers and 5 RTDS drinkers and result in 14 attributes of RTDM and RTDS attributes as the table 1

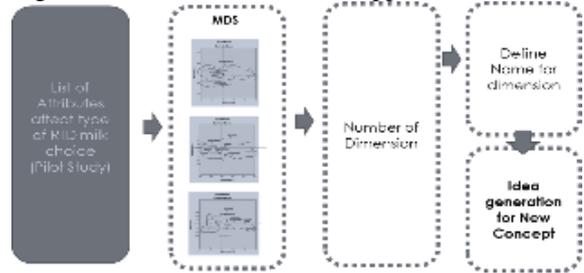
Table 1: List of cumulative attributes of RTDM and RTDS

Attributes	RTDM	RTDS	Total
	20	20	40
1. Has good taste	10	11	21
2. Gives energy	7	10	17
3. Help rebuild muscle	16	8	24
4. Build immunity	5	12	17
5. Strengthens bone	19	11	30
6. skin nourishment	9	14	23
7. Brain nourishment	10	8	18
8. Help in excretory system	6	11	17
9. Help digesting	4	17	21
10. Helps you stay in shape	6	9	15
11.. Maintains hormone balance	0	12	12
12. Offers variety of flavors	15	8	23
13. Low Fat	5	18	23
14. No cholesterol	6	19	25

### 3. The Framework Approach

This study modified Conceptual Framework from the previous research, Ideation or idea generation stage is extremely important for the new product development in almost every market. MDS is also one of the great tools to identify the space of variables or attributes which known as new opportunities for the marketing.

Figure 1: Modified Framework Approach



### 4. Research Methodology

**Mix methods approach** also used in the same research to explore and explained to broaden understanding of combining both qualitative and quantitative (Creswell, 2009).

In this study apply **sequential exploratory strategy** (Creswell, 2009) and pilot study to collect data. The sequential exploratory strategy involves qualitative and quantitative data collection. Start with qualitative data gathering and analysis, then build on the output of qualitative in the first phase by quantitative data collection. The purpose of the exploratory research process is to explore the list of idea and reformist narrowing of the scope of the study topic and a revolution of the determined space in to define ones (Zikmund, 2003).

**Qualitative Analysis :** Prior stage this study applied face to face interview, pilot to explore the distinguish attribute of RTDM and RTDS regular drinker age 30-50 years old who drinks at least 4 times a week's recommendation. The development of this face to face interview result aim to explore a list of attribute of RTDM and RTDS affect milk choice consumption are defined a pretest was conducted with 40 respondents in order to test whether the questionnaire was clear and the questions were easily understood and also applied Cronbah's alpha to assure the reliability of the answers. Therefore, total 14 attributes were included in the stage two.

Table 2 Reliability Test (cronbah's alpha)

	Alpha Test ( $\alpha$ -test)
RTDM attributes	.804
RTDS attributes	.786
RTDM and RTDS attributes	.797

**Quantitative Analysis:** According to the key objective in this study requires the statistical methodology which compatible to analyze in more psychological and provide the dimension in respondent's perception, thus the research applies multidimensional scaling to analyze the result.

The sample of the study is the milk product drinker who age around 30-50 years old who have experienced

drinking RTDM/RTDS more than 4 times a week recommended recently by using non-probability sampling method. From the study, the researcher applies purposive and convenience sampling. Polit & Hungler (1999) define purposive sampling as sampling process to determine the respondents who represent a target population. Baker *et al.*(2013) identified convenience sampling as a mechanic consider the convenience population who has time to spend on the research or time of the researcher of to distribute questionnaire.

The questionnaire consists of three parts. The first part includes three questions quantify the age, frequency of weekly consumption of milk and type of RTDM and RTDS consumption of the respondents. The second part includes ranking the most important attribute affecting RTDM and RTDS consumption, which base from the pilot study result. In the third part of the questionnaire will be used in the multidimensional scaling analysis. The primary distinction between multidimensional scaling programs is the type of data represent similarity and preferences.

### Collecting and Data gathering Procedures

Firstly create a set of 91 unique pairs of 14 attributes according to Hair (2006)  $n \times (n-1)/2$  or  $14 \times (14-1)/2$  equal to 91 unique pairs.  $n$  is represented to number of attribute for respondents compare and rate the score. The respondent is asked to rate the dissimilarity score for attribute pair. 10 is represented to most similarity and 1 is represented to least similarity. The data are collected in perception data in metric as figure 2

Figure 2: Similarity matrix data

Table 4.1 Rating perception of respondent using Perception Data (Matrix data for multidimensional scaling) (1= Highest Dissimilarity, 10=Highest Similarity)

Product Attribute	Product Attribute													
	1. Has good taste มีรสชาติอร่อย	2. Gives energy โฟพลังงาน	3. Help rebuild muscle ช่วยซ่อมแซมกล้ามเนื้อที่สึกหรอ	4. Build immunity/Make body strong สร้างภูมิคุ้มกัน/ ทำให้ร่างกายแข็งแรง	5. Strengthens bone ทำให้กระดูกแข็งแรง	6. Helps skin nourishment บำรุงผิว	7. Nourish brain บำรุงสมอง	8. Help in excretory system ช่วยกระตุ้นระบบการขับถ่าย	9. Help digesting ช่วยระบบย่อย	10. Helps you stay in shape ช่วยรักษารูปร่าง	11. Maintains hormone balance รักษาสมดุลของระดับฮอร์โมน	12. Offers variety of flavors นำเสนอรสชาติที่หลากหลาย	13. Low Fat ไขมันต่ำ	14. No cholesterol ไม่มีโคเลสเตอรอล
1 Has good taste มีรสชาติอร่อย	10	8	2	4	1	8	2	4	10	9	7	7	6	
2 Gives energy โฟพลังงาน		10	2	3	10	9	7	9	9	8	1	8	4	
3 Help rebuild muscle ช่วยซ่อมแซมกล้ามเนื้อที่สึกหรอ			10	8	1	4	10	2	1	1	9	8	8	
4 Build immunity/Make body strong สร้างภูมิคุ้มกัน/ ทำให้ร่างกายแข็งแรง				10	5	8	8	2	1	1	8	2	4	
5 Strengthens bone ทำให้กระดูกแข็งแรง					10	5	1	1	3	9	7	6	4	
6 Helps skin nourishment บำรุงผิว						10	7	1	2	8	9	4	5	
7 Nourish brain บำรุงสมอง							10	3	1	1	2	5	6	
8 Help in excretory system ช่วยกระตุ้นระบบการขับถ่าย								10	3	1	1	8	6	
9 Help digesting ช่วยระบบย่อย									10	4	2	3	5	
10 Helps you stay in shape ช่วยรักษารูปร่าง										10	5	1	1	
11 Maintains hormone balance รักษาสมดุลของระดับฮอร์โมน											10	2	5	
12 Offers variety of flavors นำเสนอรสชาติที่หลากหลาย												10	5	
13 Low Fat ไขมันต่ำ													10	
14 No cholesterol ไม่มีโคเลสเตอรอล														10

### Statistic Instrument of data

In this study applied **Descriptive analysis**, preliminary data analysis that helps to summarize the general nature of the variables included in the study and interrelationship among them. The data in this section will be presented in the form of frequency distributions and percentage distribution.

The key objective of this study is defining the space or opportunity of RTDM and RTDS attributes to generate the idea for new RTD milk development, the researcher acquires **multidimensional scaling** to aid in visualizing the structure of the data. A distance matrix is transformed into a set of coordinates such that the Euclidean distances derived from these coordinates approximate as well as possible the original distances. Moreover, the most important goal of using Euclidean distances is to visualize the structure in the data; non-Euclidean distances will rather obscure the outcome from visual inspection, but they might be a valuable method for examining specific hypotheses about the subject's perceptual space (Borg & Groenen, 1997).

### Step1: Define the dimensions:

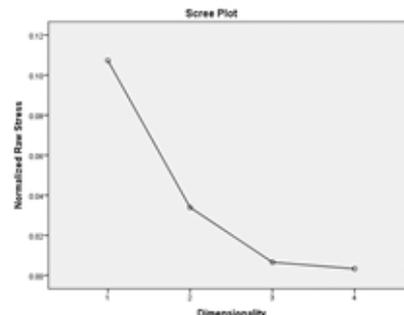
Goodness of fit Analysis (stress) determining overall fit to identify about how many dimensions are actually represented in the data. The stress measure (STandardized REsiduals Sum of Squares) is a function of the original and derived distances to evaluate the goodness-of-fit of an MDS solution

Stress function values are in between zero and one; the smaller stress number, the better the model represents the input data. Although there is no strict rule regarding how much stress is tolerable, Kruskal & Wish (1978) suggest that the rule of thumb is a value  $\leq 0.1$  is excellent and anything  $\geq 0.15$  is not tolerable.

### Step 2 : Confirm goodness of fit by Multidimensional Scaling Scree plot diagram

A second approach to identify the number of dimensions is to use a stress measure to plot against the number of factors to help us determine the optimal number of dimensions, in a similar technique to using a Scree Plot. Use of a scree plot to determine the appropriate dimensional scaling as the below table shown that the elbow indicates substantial improvement in the goodness of fit when the number of dimensions is increased from 1 to 2, the best fit is obtained with a relatively low number of dimensions (two)

Table Scree Plot diagram



**Step3:** Create perceptual map by Euclidean model

Multidimensional Scaling Euclidean model (Common Space) The model assumes that the proximities are directly related to the distances on the geometrical map. The information is a very simplified presentation of the math actually involved in the creation of the MDS map. To categorize groups of RTDM and RTDS attributes based on preference similarity.

**5. Result and Discussion**

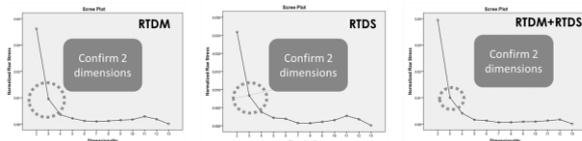
**Descriptive Analysis**

The result from the research shown that the demographic factors by using the frequency and percentage of respondents, gender was 44% males and 56% of females and the age level of 30-39 years old is the highest percentage of respondents equal to 60% (84) among age levels of 40-50 years old is 40% (56). The last demographic factor, the income factors, the majority of respondent gain 25,000-49,999 Baht which is 39% (54). The respondents who gain 15,000-24,999 Baht were 20% (22). Also, 19% (27) of respondents gain 50,001-59,999 Baht and more than 60,000 Baht and only 3% (4) of respondents refuse to give information. The Marital status of the respondent shown the highest percentage is single as 55%, married / Live with Partner 36% (51) and divorced/separated/widowed 9% (12).

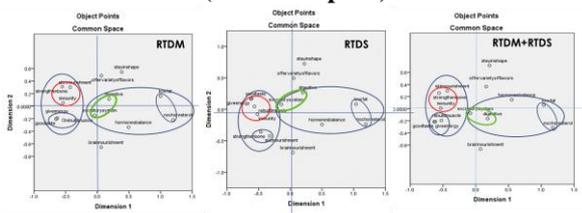
**Summary of Multidimensional scaling**

**Goodness of fit Result:** shows that the normalized raw stress of RTDM, RTDS and Mix RTDM/RTDS are 0.0362, 0.026 and 0.039 which less than 0.15 means the statistic recommended to use 2 dimensions to analyze the data.

**Scree Plot:** According to figure the scree plot diagram of RTDM, RTDS and Mix RTDM/RTDS confirm the result of 2 dimensions to analyze the multidimensional scaling



**Euclidean Model (common space):**



**Summary Table from Euclidean Result**

Almost same attributes are grouped into core 2 dimensions in RTDM and RTDS drinker, but in dimension two, there are different view of subgroup among RTDM and RTDS drinkers.

**Table 3** Summary of Attributes affecting RTDM/RTDS Milk Choice

Attributes	RTDM		RTDS		MIX RTDM+RTDS	
	Dimension 1	Dimension 2	Dimension 1	Dimension 2	Dimension 1	Dimension 2
1. Has good taste		✓		✓		✓
2. Gives energy		✓		✓		✓
3. Help rebuild muscle		✓		✓		✓
4. Build immunity		✓		✓		✓
5. Strengthens bone		✓		✓		✓
6. Helps skin nourishment		✓		✓		✓
7. Nourish brain						
8. Help in excretory system	✓		✓		✓	
9. Help digesting	✓		✓		✓	
10. Helps you stay in shape						
11. Maintains hormone balance	✓		✓		✓	
12. Offers variety of flavors						
13. Low Fat	✓		✓		✓	
14. No cholesterol	✓		✓		✓	

**Discussion and Implication**

The researcher found the same result in both groups of drinkers, they divided the attribute into 2 dimensions. Jaworska and Anastasova (2009) suggest the use of multidimensional scaling to understand deeper in perception which might not provide exactly in the data and also visualize aid in term of managing the data clustering. The previous study provides the perspective to understand better how RTDM and RTDS drinker perceived each attributes in the group.

**First Point:** Both drinker actually has the same perception toward a group of attribute, but they have different level of distance. The result in the table shown that the first group of attribute including good taste, give energy, strengthen bone, rebuild muscle and build immunity. A first group of attribute involve with the help excretory system, digestive, maintain hormone balance, Low fat and no cholesterol, which all of them perform the benefit for balancing the inner body to be more neutral, which the researcher implicated that for **inner health balance**. The Second group of attribute including good taste, give energy, strengthen bone, rebuild muscle and build immunity shows the clear, specific benefit which helps the body in term of functionalities and more energize ways to support the body to grow and strong which the researcher implicate that for the **functional health booster**.

**Second Point:** Although, group of attributes in each dimension is same in RTDM and RTDS drinkers' perceptions, but the subgroup attribute in second dimensions shows the differences between both groups' perceptions. Good taste, Give energy, Rebuild muscle and Build immunity have more impact on RTDS drinkers' perception while strengthen bone and skin nourishment has more impact on RTDM drinker's perception.

### **Recommendation**

The implication and discussion part provides the started the stated point of the idea for the company to validate further on both angles of big idea concept to do the following actions;

(1) Explore further the other attribute which added more value for the idealistic concept of “Inner Health Balance” and “Functional Health Booster” in RTDM/RTDS drinkers’ perception.

(2) The subgroup of the attributes of RTDM and RTDS drinkers’ perception can be the idea for the marketing team to create new concepts according to the performance of attributes or focus to new specific target groups such as Subgroup of attributes of RTDS including Good taste, Rebuild muscle, Build immunity and Give energy which might have an impact on fitness lover group etc.

### **Conclusion**

The next step to bring recommendations into actions as follow;

(1) The company can use the concepts of “Inner Health Balance” and “Functional Health Booster” brief to the R&D team to study further in technical term to find further attribute which can add more value in each dimension in RTDM and RTDS drinkers’ perception such as maintain eye sight, strengthen bones & joints and etc.

(2)The company can brief R&D team to find the ingredients to serve the new target group as per recommendation such as added Whey protein with low fat for fitness lover.

### **Future Studies**

For future research, other researchers should validate further the preference between “Inner Health Balance” and “Functional Health Booster” concept toward RTDS perception. Also explore further details of attribute in subgroup, whether can be a new combination to develop as a stronger concept to serve RTDM and RTDS drinker or not. Collect data from other geographical areas to get the information which represents more of the population of Thai customers and understand all of the behaviors of RTDM and RTDS drinker. Moreover, the researchers may apply different theories. As this study focused on the perception toward attributing of RTDM and RTDS only, the researchers could extend the further study by analyzing the attribute of another type of RTD liquid milk, which would affect milk choice such as drinking yoghurt, chocolate malt beverage milk and cereal milk.

### **Reference**

Amue, G. J. & Adiele, K. C. (2012). New product development and consumer innovative behavior: An empirical validation study. *European Journal of Business and Social Sciences*, 1(6), 97-109.

- Anastasova, A. C. & Jaworska, N. (2009). A Review of Multidimensional Scaling (MDS) and its Utility in Various Psychological Domains. *Tutorials in Quantitative Methods for Psychology*, 5(1), 1-10.
- Baker, R., Brick, J. M., Bates, N. A., Battaglia, M., Couper, M. P., Dever, J. A., et al. (2013). “Summary report of the AAPOR task force on non-probability sampling”, *Journal of Survey Statistics and Methodology*, 1, pp. 90–143.
- Bhattacharya, S., Krishnan, V. & Mahajan, V. (1998). *Managing New Product Definition in Highly Dynamic Environments*. Texas Business School, Austin, TX 78712.
- Bhuiyan, N. (2013). A framework for successful new product development. *Journal of Industrial Engineering and Management*, 4(4), 746-770.
- Borg, I., & Groenen, P. J. F. (1997). *Modern multidimensional scaling: Theory*
- Chaiwanon, P., Puwastien, P., Nitithamyong A. & Sirichakwal, P. P. (2000). Calcium fortification in soybean milk and in vitro bioavailability. *J. Food Comp. Anal*, 13, 319-327.
- Chemam, Y. B., Wei, L. S. & Nelson, A. I. (1989). Acid inactivation of soybean lipoxygenase with retention of protein solubility. *J. Food Sci*, 54, 963-967.
- Crawford, C. (1987). *New product management* (2nd Ed.). Illinois: Richard
- Creswell, John W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. 3rd Edition. Los Angeles: Sage Publications, Inc.
- Daniel, D.R. (1961). Management information crisis. *Harvard Business Review*, 39(5), 111-121.
- Hair, J., Black, B. Babin, B., Anderson, R. & Tatham, R. (2006). *Multivariate Data Analysis* (6th edition). Upper Saddle River, NJ: Prentice-Hall.
- Hauser, J. R. & Clausing, D. (1988). The House of Quality. *Harvard Business Review*, 66, 63-73.
- Hauser, J., Tellis, G. J. & Graffin, A. (2005). Research on Innovation: A Review and Agenda for "Marketing Science". *Marketing Science* 25th Anniversary Issue, 25(6), 687-717.
- Hoffman, S. J., Rosenfield, D., Gilbert, J. H. V. & Oandasan, I. F. (2007), Student leadership in inter professional education; benefits, challenges and implications for educators, researchers and policymakers. Accepted for publication in *Medical Education*, 42(7), 654–661.
- Jane Lu Hsu, Yu-Tso Lin, (2006) "Consumption and attribute perception of fluid milk in Taiwan", *Nutrition & Food Science*, Vol. 36 Iss: 3, pp.177 – 182
- Jaworska, N. and Chupetlovska-Anastasova, A. (2009) A Review of Multidimensional Scaling (MDS) and its Utility in Various Psychological

- Domains. *Tutorials in Quantitative Methods for Psychology* 5:1–10
- Johnson, R. A., & Wichern, D. W. (2002) *Applied Multivariate Statistical Analysis*. Upper Saddle River, N.J.: Prentice Hall.
- Karamathullah, N., Lalith Achoth & A.Sachindrababu (2002). Final Report of the ICAR sponsored scheme of the Department of Dairy Economics and Business management, College of Dairy Science, UAS, Bangalore (KARNATAKA) INDIA.
- Kotler, P. & Armstrong, G. (2010). *Principles of Marketing*. 13th (Global) ed. Boston: Pearson Education, Inc.
- Kruskal, J. B., & Wish, M. (1978). *Multidimensional scaling*. Newbury Park, CA: Sage.
- Namey, E., Guest, G., Thairu, L & Johnson, L. (2007). *Data Reduction Techniques for Large Qualitative Data Sets*. Handbook for team-based qualitative research. Altamira Press, 137-161
- Pandian, J. D., Leurini, S., Menten, K. M., Belloche, A., & Goldsmith, P. F. 2008, A & A, 489, 1175.
- Petiot, J. F., Grognet, S. (n.d.). A multidimensional scaling approach for product design and preference modeling. *IEEE International Conference on Systems, Man and Cybernetics*, 4, 54-59.
- Polit D. F. & Hungler B. P. (1999) *Nursing Research: Principles and Methods* (6th Ed.) Philadelphia, Lippincott.
- Rockart, John F. (1979). "Chief Executives Define Their Own Data Needs." *Harvard Business Review*, 81-92.
- Ruiz, S. & Tomaseti, E. (n.d.). Attribute type and product meaning on new product evaluation: The additional moderating effect of need for cognition. *Marketing and Innovation*. A Polytechnic University of Cartagena, University of Murcia.
- Schiffman, S. S., Reynolds, L. M. & Young, F.W. (1981). *Introduction to Multidimensional Scaling: Theory, Methods, and Applications*. New York: Academic.
- The Nielsen Company. (2015). Sales of liquid milk in Thailand, January to December 2015 [Pie&Table]. Retrieved from ACNielsen Market Information.
- Zikmund, W. G. (2003). *Business Research Methods*, (5th Ed). Florida: The Dryden Press Harcourt Brace College Publishers.

## The Influence of Loyalty Program Service Quality On Customer Satisfaction

Piyasuda Phothikit<sup>1</sup>, Piyathida Praditbatuga<sup>2</sup>, Santhiti Treetipbut<sup>3</sup>

<sup>1, 2, 3</sup> Graduate School of eLearning, Assumption University of Thailand  
Bang Sao Thong, Samuthprakarn, Thailand 10540  
E-mail: Santhitidr@gmail.com

### Abstract

The objective of this research was to determine the influence of loyalty program service quality dimensions (program policy, program reward, personalization, tangibility, information usefulness, courteousness / helpfulness, and communication quality) on customer satisfaction of members of the Bangchak Gasohol Club and/or Diesel Club. A total of 120 complete and valid questionnaires were collected from Bangchak service stations in the Bangkok area. Hypotheses were tested using multiple regression analysis. It found that there is a positive influence of loyalty program service quality dimensions on customer satisfaction. In addition, the most significant program service quality dimension that has the highest impact on customer satisfaction is program reward, followed by program policy communication quality, courteousness / helpfulness, information usefulness, tangibility and personalization respectively.

**Keywords:** Loyalty Program Service Quality (LPSQual), Program Policy, Program Reward, Personalization, Tangibility, Information Usefulness, Courteousness / Helpfulness, Communication Quality, Customer Satisfaction

### Introduction

More than ever, businesses are subjected to higher competition and more rapidly change forces. The emergence of new technology has created highly competitive market conditions that had affected on consumer behavior. Customers are now likely to change their buying behavior and switch brands more often (Beckett, Hewer and Howcroft 2000). In the face of increasing competition, companies need to win loyalty of existing customer along with expansion of the customer base. Customer relationship marketing is a defensive marketing strategy that focuses on managing the customer experience by better understanding their needs and purchasing behavior (Baran, Galka, and Strunk, 2008). Several companies invest very heavily in customer loyalty programs. It is reported that members of a loyalty program deliver distinct advantages to a firm such as increased revenues (Bolton et al., 2000 as cited in Omar et al., 2013 and satisfaction (Stauss et al., 2001 as cited in Omar et al., 2013) and loyalty (Noordhoff et al., 2004; Vesel and Zabkar, 2009 as cited in Omar et al., 2013).

Due to high competition and low marketing margin in retail fuel industry (Yoon, 2012), loyalty program was used as a technique to retain loyal customers. The Bangchak Petroleum Public Company Limited (BCP) was set up Bangchak Gasohol Club and Diesel Club to gain ability to develop close relationship with current customers and make efforts to promote their loyalty. This is an attempt to create an emotional bond with customers. BCP is a Thai petroleum company, running business of refining of crude oil from the Middle East, the Far East as well as from the domestic sources and sells its finished products through more than 1,000

service stations throughout the country. The retail network consisted of 489 standard service stations and 578 community service stations with supplementary businesses which consist of sale of consumer products in 'Baichak mart' and 'Lemon Green minimart' stores, car wash and engine-oil changing /maintenance under brand of the Green Series. BCP also runs coffee shop business in brand 'Inthanin coffee'. (The Bangchak Petroleum Public Company Limited, 2012).

Bangchak Gasohol Club is a loyalty program, which was setting up to promote alternative-energy customer base. Members are entitled to a Baht 0.20 per liter of gasohol and Baht 0.20 per 4 liters of Diesel and to the privileges under the Same Price Project. The year 2012 saw the Company further upgrade this privilege through the Value Points Project, under which members collect points not only from gasohol refueling but also from purchases of goods and services of supplementary businesses. Cumulative points are good for discounts for both refueling and supplementary business purchases (The Bangchak Petroleum Public Company Limited, 2012).

### Theoretical Background

#### Service Quality

Parasuraman et al., (1985) point out that service quality is more difficult for the consumer to evaluate that goods quality, perception of service quality result from a comparison of consumer expectations with actual service performance, quality evaluations are not made solely on the outcome of a service but also involve evaluations of the process of service delivery and the customer has fewer tangible cues when purchasing a service than when purchasing goods. He created a conceptual model for a better understanding of the

nature of service quality called SERVQUAL, which was originally measured on ten dimensions: tangible, reliability, responsiveness, competence, courtesy, credibility, security, access, communication and understanding the customer. Later, he modified and improved their service quality (SERVQUAL) model into five dimensions, which are tangible, reliability, responsiveness, assurance and empathy.

**Loyalty Program Service Quality (LPSQual)**

Omar and Musa (2011) had developed a suitable scale for measuring loyalty program in terms of service quality called Loyalty Program Service Quality (LPSQual). LPSQual was developed from SERVQUAL, it have identified seven dimensions that explain what dimensions of service quality are important to customers in assessing a retail loyalty program. LPSQual contains 26-items in seven dimensions: program policy, program reward, personalization, tangibility, information usefulness, courteousness/helpfulness, and communication quality.

**Customer satisfaction**

Customer satisfaction is defined as an affective state with positive feelings resulting from an evaluation of the overall consumption experiences (Cronin et al., 2000). Kotler (2000) stated that customer satisfaction is a person’s feelings of pleasure or disappointment resulting from comparing a product’s perceived performance or outcome in relation to his or her expectations. Satisfaction is viewed as a function of perceived performance and expectations. It clears that if the performance fall short of expectations, the customer is dissatisfied, and if the performance matches the expectations, the customer is highly satisfied or delighted.

**The Relationship between Service Quality and Customer Satisfaction**

Customer Satisfaction is important because a company’s sales come from two groups, which are new customers and retained customers. Acquiring new customers can cost five times more than the costs involved in retaining current customers. Satisfied customers buy a product again, talk favorably to others about the products, pay less attention to competing brands, and buy other product from the company. A dissatisfy customer responds differently. Clearly, bad word of mouth travels farther and faster than good word of mouth and quickly damages consumer attitudes toward a company and its products (Kotler, 2000).

Many marketers go beyond meeting the expectations of customers; they aim to delight the customers with better service quality. A number of studies in the services marketing literature have reported that these two constructs are strongly related (Sivadas and Baker-Prewitt 2000; Bei and Chiao 2006; Akbar and Parvez 2009; Mosahab, Mahamad and Ramayah 2010; Edward and Sahadev 2011; Ou, Shih, Chen and Wang, 2011; Yap, Ramayah and Shahidan 2012; Kitapci, Dortyol, Yaman and Gulmez 2013).

**The research objective**

This research aims to investigate the influence of Loyalty Program Service Quality on customer satisfaction based on model of LPSQual (Omar et al., 2011).

**Research Hypothesis**

There is no influence of Loyalty Program Service Quality dimensions (program policy, program reward, personalization, tangibility, information usefulness, courteousness / helpfulness, communication quality) on customer satisfaction.

**Methods**

**Participants and Procedures**

Convenience sampling was used to collect information. The survey questionnaire was developed and distributed to the sample group at Bangchak service stations selected on the basis of convenience. 15 to 20 observations per independent variable are desired for results to be generalizable (Hair et al., 1998). The 120 (N = 120) respondents participated in this study. The respondents were selected by asking screening question that the respondent is a member of Bangchak gasohol Club and/or Diesel Club and do them willing to participate. The respondents were selected at Bangchak service stations located on Bang Na, Sukhumvit, Sanpawoot and Teparak. The sample is presented in Table 1.

**Table 1. Demographic Characteristics of the Sample**

<b>Gender</b>	<b>Age Group</b>	<b>Member Type</b>
Male: 58.3%	18–25: 1.7%	Gasohol Club:
Female: 41.7%	26–35: 39.2%	78.3%
	36–45: 40.8%	Diesel Club:
	46–55: 14.2%	16.7%
	56–60: 4.2%	Both: 5%

**Instruments**

The questionnaire was developed from Omar, Wel, and Alam (2013) and Edward and Sahadev (2011). Questionnaire was translated into Thai. The questionnaire is containing three parts; Part I: LPSQual contains 26 items in seven dimensions: Policy (Cronbach's Alpha .81), Reward (Cronbach's Alpha .89), Personalization (Cronbach's Alpha .78), Tangibility (Cronbach's Alpha .95), Information Usefulness (Cronbach's Alpha .90), Courteousness/Helpfulness (Cronbach's Alpha .93), and Communication quality (Cronbach's Alpha .95) (Table 2). Part II: Satisfaction was measured with a 3-item scale taken from a measure of satisfaction developed by Edward and Sahadev (2011) The reliability of the scale was calculated using Cronbach's alpha and was found to be .97. For Part I and II the respondents was asked to indicate the degree of agreement of each question on a five-point Likert scale from 1 – 5 (Table 2). Part III: Consists of demographic characteristics of respondents.

In this research, the multiple linear regression analysis will be used to analyze research hypothesis to determine the influences of Loyalty Program Service Quality dimensions on customer satisfaction.

Table 2. Descriptive statistics and reliability analysis for the Loyalty Program Service Quality and customer satisfaction

Item	Mean	SD	Interpretation
Policy	3.93	0.76	Agree
Reward	3.72	0.74	Agree
Communication Quality	3.49	0.62	Agree
Courteousness/Helpfulness	3.29	0.53	Neutral
Personalization	3.28	0.7	Neutral
Information Usefulness	3.26	0.89	Neutral
Tangibility	2.89	0.89	Neutral
Customer satisfaction	3.86	0.67	Satisfied

**Results and Discussion**

**Policy Dimension**

It refers to the program operations in terms of the redemption procedures, entry requirements, rebate calculation and renewal procedure (Omar et al., 2013). From the results, respondents generally had positive attitudes toward program policy based on their agreement with all attributes with the average mean of 3.93, which rated in Agree level, and standard deviation of 0.76.

**Reward Dimension**

It refers to the perception that the loyalty program offers high quality and desirable rewards to members (Berry and Parasuraman, 1991; Mauri, 2003 cited in Omar et al., 2013). The results shown that, respondents had positive attitudes toward reward with all attributes based on their agreement with the average mean of 3.72 and standard deviation of 0.74.

**Personalization Dimension**

It refers to the perception that loyalty program provides special treatment to cardholders that non-cardholders would not receive (Omar et al., 2013). Personalization is essential in helping to save customers time and increase perceptions of service quality (Srinivasan et al., 2002 cited in Omar et al., 2011). From the results, respondents had relatively neutral attitudes toward Personalization based on their agreement with all attributes with the average mean of 3.28 and standard deviation of 0.70.

**Tangibility Dimension**

It refers to the physical characteristics associated with the service encounter. It has been widely accepted as a key component of the perceived service quality. Physical aspects comprise more than the physical facilities; they cover the convenience offered to the customer by the layout of the physical facilities. In a retail loyalty program context, this consists of the physical appearance of the service counters, such as their being easy to access and providing space to move around (Dabholkar et al., 1996; Parasuraman et al., 1988 cited in Omar et al., 2011). From the results, respondents generally had neutral attitudes toward tangibility based on their agreement with all attributes with the average mean of 2.89 and standard deviation of 0.89.

**Information Usefulness Dimension**

It refers to the perception that loyalty program provides relevant and accurate information such as reminding the cardholder about expiring date of the points and informing the participating outlets that are involved in the loyalty program (Omar et al., 2013). The results shown that, respondents had neutral attitudes toward Information Usefulness based on their agreement with the average mean of 3.26 and standard deviation of 0.89.

The mean values of items of information usefulness were interpreted into two groups, which were Agree, and Neutral level. The item which was in Agree level was *Informs cardholders the participating outlets in the loyalty program*, whereas other two items which were *Reminds cardholders about the expiry date of the voucher* and *Reminds cardholders about the expiry date of the points* had Neutral range.

**Courteousness / Helpfulness Dimension**

It refers to the perception that how the cardholder is treated by staff members (Demoulin and Zidda, 2009

cited in Omar et al., 2013). The results shown that, respondents had neutral attitudes toward courteousness / helpfulness based on their agreement with the average mean of 3.29 and standard deviation of 0.53. The mean values of all items of courteousness / helpfulness were interpreted into Neutral level.

**Communication Quality Dimension**

It refers to the perception that loyalty card program provides reliable communication tools to regularly communicate with cardholders through various means (Anderson and Narus, 1990 cited in Omar et al., 2011). From the results, respondents generally had positive attitudes toward communication quality based on their agreement with all attributes with the average mean of 3.49, which rated in Agree level, and standard deviation of 0.62. The mean values of items of communication quality were interpreted into two groups that were Agree and Neutral. The items which were in Agree level were *Provides website that is informative; Provide website that is easy to access; Offers a reliable web site to its cardholders; Provides website that is useful; Provides website that is attractive*. Whereas other two items had Neutral range which were *Often updates its website; Always gives prompt feedback through the web site*.

**Customer Satisfaction**

Table 2 shows the overall mean of the variable customer satisfaction equal to 3.86, which rated in the Satisfied level, and standard deviation of 0.67. Based on their agreement, respondents generally satisfied with Bangchak Gasohol Club and/or Diesel Club.

**Hypotheses Testing**

The multiple regression analysis was conducted to evaluate how well loyalty program service quality dimensions (program policy, program reward, personalization, tangibility, information usefulness, courteousness / helpfulness and communication quality) do significantly influence customer satisfaction.

According to Table 3 R-correlation indicates that the linear combination of loyalty program service quality dimensions; program policy, program reward, personalization, tangibility, information usefulness, courteousness / helpfulness and communication quality significantly influenced customer satisfaction as the strength of R Square = 0.615, Adjusted R Square = 0.590 F = 25.508, p = .000.

The significant P-value of the regression coefficient is  $p < .05$  which indicates that the influence of loyalty program service quality dimensions and customer satisfaction is significant. Therefore, the null hypothesis was rejected, and the combination of loyalty program service quality dimensions (program policy, program reward, personalization, tangibility, information usefulness, courteousness / helpfulness and communication quality) indicated customer satisfaction at approximately 61%.

Table 3: Multiple Regression Analysis Results

Model Summary			
R	R Square	Adjusted R Square	Std. Error of the Estimate
.784a	.615	.590	.43073

a. Predictors: (Constant), Communication Quality, Information Usefulness, Policy, Tangibility, Courteousness/helpfulness, Reward, and Personalization.

ANOVA <sup>b</sup>					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	33.128	7	4.733	25.508	.000
Residual	20.779	11	.186	8	a
Total	53.907	11			
		9			

a. Predictors: (Constant), Communication Quality, Information Usefulness, Policy, Tangibility, Courteousness/helpfulness, Reward, and Personalization.

b. Dependent Variable: Customer Satisfaction.

**Discussion**

Findings from this research reveal that Loyalty Program Service Quality dimensions (program policy, program reward, personalization, tangibility, information usefulness, courteousness / helpfulness, communication quality) significantly influence on customer satisfaction. The result of this study is consistency to the study of Omar and Musa (2011) *Measuring Service Quality in Retail Loyalty Programmes* in Malaysia who found that LPSQual is related to program satisfaction. However, the outcome of this study does not support the finding from Kitapci, Dortyol, Yaman and Gulmez (2013) *The Paths from Service Quality Dimensions to Customer Loyalty: An Application on Supermarket Customers* who found that the influence of empathy dimension on consumer satisfaction is stronger than the influence of other dimensions. Empathy dimension of the traditional SERVQUAL can be also understood as personalization dimension of the LPSQual (Zeithaml et al., 2002 and Kassim and Ismail, 2009 as cited in Omar et al., 2013).

From seven dimensions of Loyalty Program Service Quality, program reward has the highest impact on customer satisfaction when compared to other factors. Due to the cardholders were least agreed that Bangchak offers high quality reward gifts (mean score = 3.63). Bangchak should thus improve the quality of reward gifts, which would in turn increase its customer satisfaction.

Program policy has second highest impact on customer satisfaction. Among all items, the cardholders were least agreed that the company allows points to be earned quickly (mean score = 3.87). Bangchak should

improve this perception by creating a situation that cardholders can earn points more than normal such as double point promotion in a period of time.

The item that had least agree on communication quality is about prompt feedback through the website (mean score = 3.26). Therefore, Bangchak Gasohol club and/or Diesel club should increase feedback speed when getting the contact from website. Due to communication quality is the third highest dimension that influences customer satisfaction; quick replies are essential to increase customer satisfaction.

The other 4 Loyalty Program Service Quality dimensions courteousness / helpfulness, information usefulness, tangibility and personalization also had positive influence on customer satisfaction but the cardholders of Bangchak Gasohol club and/or Diesel club were either agree or disagree about service quality of the loyalty program. Therefore, all 4 dimensions should not be ignored.

The item that should improve first in courteousness / helpfulness is about willing to solve cardholder's queries (mean score = 3.23) and cares about receiving feedback from the cardholders (mean score = 3.23). So Bangchak should train their staffs to have customer oriented skill to deal with the customer feedback or complaint and giving quick responses. It was noticed that Bangchak have problem about receiving feedback from the cardholders both through website and staffs.

Bangchak should improve to remind cardholders about the expiry date of the points (mean score = 3.14). So Bangchak should consider using several communication channels to inform them about expiry date such as SMS and email. Bangchak may use CRM software to standardize the reminding process to help remind the cardholders.

For tangibility, Bangchak should provide more seating area in its service stations to improve the perception about comfortable seating area Bangchak provided at Bangchak service station, (mean score = 2.76). Bangchak may provide small seating area beside their coffee kiosk or a little entertainment corner such as internet in coffee shop in service station. Bangchak may rearrange layout in some service station to help adding more space and more convenience.

Although personalization has the lowest impact on customer satisfaction from the beta value, but Bangchak should not be ignored. Personalization is essential in helping increase perceptions of service quality (Srinivasan et al., 2002 as cited in Omar et al., 2011) Bangchak should improve the perception about giving cardholders personal attention (mean score = 3.16). The cardholders are expected to receive special treatment that non-cardholders would not receive. Bangchak should train their staff to give individualized attention to cardholders and make cardholders feel that they receive special treatment. Bangchak may offer activities that match personal interest to the cardholders.

#### Conclusion

The objective of this research is to identify the influence of Loyalty Program Service Quality

(LPSQual) on customer satisfaction of members of Bangchak Gasohol Club and/or Diesel Club by applying seven dimension of Loyalty Program Service Quality (program policy, program reward, personalization, tangibility, information usefulness, courteousness / helpfulness and communication quality) as an instrument.

The hypothesis test results showed that the combination of all Loyalty Program Service Quality dimensions are positively and significantly impact customer satisfaction ( $r^2 = 0.61$ ). The most significant factor of Loyalty Program Service Quality that has the strongest impact on customer satisfaction is program reward, followed by program policy, communication quality, courteousness / helpfulness, information usefulness, tangibility and personalization respectively.

For further research, to help improve company's competitiveness, other factors related to customer satisfaction should be added such as customer retention and customer loyalty. Customer satisfaction could be evaluated as a mediator in the effects of Loyalty Program Service Quality on customer retention and customer loyalty (Mosahab, Mahamad and Ramayah, 2010 and Akbar and Parvez, 2009).

Given that this research limited sample in certain areas of Bangkok, therefore, further research may extend to other area.

#### References

- Akbar, M.M. & Parvez, N. (2009). Impact of Service Quality, Trust, and Customer Satisfaction on Customer Loyalty. *ABAC Journal*, 29(1), 24-38.
- Baran, R.J., Galka, R.J., Strunk, D.P. (2008). *Principles of Customer Relationship Management*. OH: Thomson South-Western.
- Beckett, A., Hewer, P. & Howcroft, B.(2000). An Exposition of Consumer Behavior in the Financial Services Industry. *The International Journal of Bank marketing*, 18(1), 15-26.
- Berry, L.L., Leonard, L. & Parasuraman, A. (1997). Listening to the Customer-the Concept of a Service-quality Information System. *Sloan Management Review*, 38, 65-76.
- Bei, L. & Chiao, Y. (2006). An Integrated Model for the Effects of Perceived Product, Perceived Service Quality, and Perceived Price Fairness on Consumer Satisfaction and Loyalty. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 14, 125-140.
- Cronin, J. J., Brady, M.K., & Hult, G.T. (2000). Assessing the Effects of Quality, Value, and Customer Satisfaction on Consumer Behavioral Intentions in Service Environments. *Journal of Retailing*, 76(2), 193-218.
- Edward, M. & Sahadev, S. (2011). Role of Switching Costs in the Service Quality, Perceived Value, Customer Satisfaction and Customer Retention

- Linkage. *Asia Pacific Journal of Marketing and Logistics*, 23(3), 327-345.
- Hair, J. F., Anderson, R. E., Tatham, R. L. & Black, W. C. (1998). *Multivariate Data Analysis*. 5th ed. USA: Prentice Hall.
- Kitapci, O., Dortyol, I.T., Yaman, Z. & Gulmez, M. (2013). The Paths from Service Quality Dimensions to Customer Loyalty: An Application on Supermarket Customers. *Management Research Review*, 36(3), 239-255.
- Kotler, P. (2000). *Marketing Management: Analysis, Planning, Implementation, and Control*. Millennium edition, Prentice-Hall.
- Mosahab, R., Mahamad, O. & Ramayah, T. (2010). Service Quality, Customer Satisfaction and Loyalty: A Test of Mediation. *International Business Research*, 3(4), 72–80.
- Omar, N.A. & Musa, R. (2011). Measuring Service Quality in Retail Loyalty Programmes (LPSQual) Implications for Retailers' Retention Strategies. *International Journal of Retail & Distribution Management*, 39(10), 759-784.
- Omar, N.A., Che Wel, C.A., Abd Aziz, N. & Shah Alam, S. (2013). Investigating the Structural Relationship between Loyalty Programme Service Quality, Satisfaction and Loyalty for Retail Loyalty Programmes: Evidence from Malaysia. *Measuring Business Excellence*, 17(1), 33-50.
- Ou, W., Shih C., Chen, C. & Wang, K. (2011). Relationships among Customer Loyalty Programs, Service Quality, Relationship Quality and Loyalty. *Chinese Management Studies*, 5(2), 194–206.
- Parasuraman, A., Berry, L.L., & Zeithaml, V.A. (1985). A Conceptual Model of Service Quality and its Implication for the Future Research. *Journal of Marketing*. 49(4). 41-50.
- Parasuraman, A., Zeithaml, V.A. & Berry, L.L., (1988). SERVQUAL: A Multiple Item Scale for Measuring Consumer Perception of Service Quality. *Journal of Retailing*, 64(1), 12-37.

Sivadas, E. & Baker-Prewitt, J.L. (2000). An Examination of the Relationship between Service Quality, Customer Satisfaction, and Store Loyalty. *International Journal of Retail & Distribution Management*, 28(2), 73-82.

The Bangchak Petroleum Public Company Limited (2012). An Annual Report 2012. Retrieved from <http://www.bangchak.co.th/en/ir>

The Bangchak Petroleum Public Company Limited (2012). A Sustainability Report 2012. Retrieved from <http://www.bangchak.co.th/en/ir>

The Bangchak Petroleum Public Company Limited (2012). Bangchak Gasohol Club. Retrieved from <http://www.bangchak.co.th/bangchak-cards/index.aspx>

The Bangchak Petroleum Public Company Limited (2012). Form 56-1 2012. Retrieved from [http://bcp-th.listedcompany.com/form\\_561.html](http://bcp-th.listedcompany.com/form_561.html)

Yap, B.W., Ramayah, T. & Wan Shahidan, W.N. (2012). Satisfaction and Trust on Customer Loyalty: a PLS Approach. *Business Strategy Series*, 13(4), 154-167.

Yoon, Suthichai (2012). Retail Fuel Competition. Retrieved from <http://www.suthichaiyoon.com/home/details.php?NewsID=1897>

Zeithaml, V.A. & Bitner, J.M. (2002). *Service Marketing: Integrating Customer Focus across the Firm*. NY: McGraw-Hill.