

Factors Influencing Store Patronage: A Study of Modern Retailers in Bangkok Thailand

Wornchanok Chaiyasoonthorn and Watanyoo Suksa-ngiam

Abstract—Discount stores, hypermarkets, and supermarkets have been dominating the retail industry in Thailand for a long time. This research aims at investigating what factors affect Thai customers purchasing goods and services from such types of retail stores in Bangkok, Thailand. 424 respondents were selected from 4 areas in Bangkok; correlations and multiple regressions statistical analyses were employed to estimate relationships between independent and dependent variables. The results show that factors correlated with purchase of goods and services from modern retail stores were distance from home, distance from workplace, purchase intention, customer satisfaction, perceived service quality, personal income, and household income. However, when considered with significant factors and multicollinearity, only three factors: distance from workplace, purchase intention, and personal income could be used to create a predicting equation. Discussions and future research are addressed at the end.

Index Terms—Retail stores, discount stores, hypermarkets, supermarkets, and marketing.

I. INTRODUCTION

There is an increase in competition among types of modern stores: grocery stores, supermarkets, discount stores, department stores, catalog showrooms; they are competing for the same customers [1]. Gigantic discount chains can threaten a traditional department store chain and a small grocery store [2] while hypermarkets are a favorite type of retail store because of lower price and convenience. Such stores affect traditional stores negatively [3] because such store chains have advanced information technology, excellent logistic systems and powerful bargains [1]. In addition, traditional retailers are being coerced by modern stores since modern retail stores play in both the top (luxury offering) and the bottom (discount pricing) markets. Modern retailers have changed not only the structure of the retail industry, but also the pattern of consumer behavior. Nowadays, customers are facing difficulty in making their decision to select from many types of stores such as grocery stores, supermarkets, discount stores, large mega stores, and hypermarkets [4].

Manuscript received October 22, 2011; revised November 23, 2011.

This work was partially supported by Administration and Management College, King Mongkut's Institute of Technology Ladkrabang.

C. Wornchanok is with and Management College King Mongkut's Institute of Technology Ladkrabang, Bangkok, 10520 Thailand (e-mail: yuyja@hotmail.com or kcownch@kmitl.ac.th).

S. -N. Watanyoo is with Ruam-Jit Engineering Company Limited, Chinat 17000 Thailand (e-mail: supergolf@hotmail.com).

II. LITERATURE REVIEW

A. Distance

Locations of retailers must be accessible to the potential target group of customers [5]. A far distance has a negative effect on the selection of a retail store through reducing frequency of customers visiting a store [6]. Stores located in the centre of city benefit from their next door to remote customers [7]. Therefore, we surmised that distance from home (X1) and distance from workplace (X2) would have a relationship with the amount of purchase (Y) from retail stores (hypothesis 1 and hypothesis 2).

B. Purchase Intention

Purchase or behavioral intention is used to demonstrate intention of buyers to buy goods or services [8]. Consumer's decision is based on a complex set of factors such as quality, value, and satisfaction, which can directly influence behavioral intention [9]. Intentions have normally been accepted as the cognitive component of an attitude and it is usually assumed that this cognitive component is associated with the attitude's affective component [10]. Purchase intention is more suitable for short time measurement than for long time measurement [11]. Purchase intention indicates the customer's intention to repurchase, intention of cross buying-purchase another product from the same company, and Intention can be used to describe customer's loyalty [12]. So, we conjectured that purchase intention (X3) would have a relationship with the amount of purchase (Y) from retail stores (hypothesis 3).

C. Customer Loyalty

Customer loyalty is an imperative requirement of all sorts of retail stores [13]. According to Kumar & Shah (2004, p 328) [14], "Customer loyalty can be a double edged sword. If mismanaged, it can seriously hurt the company's bottom-line. That is, profitability may be compromised for loyalty. But, if customer loyalty is managed prudently and in conjunction with profitability, it could be the most potent weapon against competition in the company's marketing arsenal [14]." Therefore, we assumed that customer loyalty (X4) would have a relationship with the amount of purchase (Y) from retail stores (hypothesis 4).

D. Customer Satisfaction

Modern retailers believe that customer satisfaction is a major factor in doing successful business [15]. Customer satisfaction refers to customers' feelings of satisfaction or dissatisfaction arising from comparing a product's or service's performance or outcome along with their expectation [1]. The role of satisfaction can be seen as a factor that affects purchasing intention of consumers [9], and

also customer satisfaction is responsible for store sales performance [15]. The American Customer Satisfaction Index divides customer satisfaction into three components: overall satisfaction, expectancy-disconfirmation, and real performance of a product or service versus performance of an ideal product or service [16]. Taking the above into account, we assumed that customer satisfaction (X5) would have a relationship with the amount of purchase (Y) from retail stores (hypothesis 5).

E. Perceived Value Factors

Offering excellent value to customers is a continuing concern of management in many business markets nowadays. Knowing how customers evaluate product or service value has become essential for firms [17]. Nonetheless, perception of value is subjective since different customers from different cultures and different time seem to evaluate different value. This notion depicts value as a changing variable, at any given time e.g. before purchase, at the moment of purchase, at the time of use, and after use [18]. Perceived value has a positive effect on customer satisfaction [19]. Value normally consists of quality, service, and price (QSP), known as the customer value triad [20]. Consequently, we assumed that perceived quality (X6), perceived price (X7), and perceived service quality (X8) would have a relationship with the amount of purchase (Y) from retail stores (hypothesis 6, 7, and 8).

F. Store Assortment

An important issue of managing retail stores is to offer customers an opportunity to visit a retail store at one time for one-stop shopping and get multiple products or services [4]. Generally, managers of supermarkets view the importance of assortment differently from their customers. Customers are more concerned about product and service assortment than the managers of supermarkets [21]. Stores which allow customers shopping multi products tend to outperform those which focus on single product outlets in that multiple product stores can help customers economize by making fewer trips to buy products [4]. Thus, we assumed that store assortment (X9) would have a relationship with the amount of purchase (Y) from retail stores (hypothesis 9).

G. Socioeconomics

Income (both individual and family) is one crucial factor of socioeconomics; it divides people into social standing by estimating their amount and source of revenue [22]. Poor customers tend to buy from low price store and purchase little from supermarkets because of their limited resources [23]. Customers make decisions based on their personal characteristics such as age, occupation and economic circumstances. Such factors have a direct impact on customer behavior [1]. Hence, we assumed that personal income (X10) and household income (X11) would have a relationship with the amount of purchase (Y) from retail stores (hypothesis 10 and 11).

III. METHODOLOGY

A. Samples and the Sampling Method

In this research, the number of respondents was 424, selected by using area sampling (cluster sampling) from 4 locations in Bangkok Thailand; TABLE I presents

characteristics of respondents. The samples were asked for information about the most visited retail store (a hypermart, discount store, or supermarket). A 7-semantic differential scale was employed to measure question items.

TABLE I: CHARACTERISTICS OF RESPONDENTS

Characteristics	Number (n)	Percentage (%)
Gender		
Male	223	52.6 %
Female	201	47.4%
Occupation		
Student	161	38 %
Working	241	56.8%
Unemployed	10	2.4 %
Other	12	2.8 %
Age		
below 20	22	5.2%
21-30	284	67.0%
31-40	81	19.1%
41-50	26	6.1%
Greater than 50	11	2.6%

TABLE II indicates the brands of modern retail stores where the respondents most frequently visited in Bangkok. According to Table II, the number of customers answering Big C was the greatest number at 42.9%, followed by that of customers answering Tesco Lotus Hypermart at 20%.

TABLE II: BRANDS OF MODERN RETAIL STORES

Characteristics	Number (n)	Percentage (%)
Big C	182	42.9 %
Big C Extra	8	1.9 %
Big C Market	6	1.4 %
Tesco Lotus Hypermart	85	20.0 %
Tesco Lotus Market	49	11.6 %
Tops Super	24	5.7 %
Tops Market	23	5.4 %
Others	47	11.1 %

TABLE III: THE DEFINITIONS OF THE CONSTRUCT VARIABLES

Construct	Operational Definition
Purchase Intention (X3)	The degree to which a customer intends to buy goods or services from a modern retail store in the future.
Customer Loyalty (X4)	The degree to which a customer demonstrates repeated purchase behavior.
Customer Satisfaction (X5)	The degree to which a customer feels satisfied or dissatisfied from the outcome of the store.
Perceived quality (X6)	The degree to which a customer perceives the quality of products sold in the store as high or low quality.
Perceived price (X7)	The degree to which a customer perceives the price of products sold in the store as expensive or cheap.
Perceived service quality(X8)	The degree to which a customer perceives the service quality of the store.
Store Assortment (X9)	The degree to which a customer perceives the assortment of products sold in the retail store.

B. Construct Reliability and Validity

To measure reliability of factors, the researchers employed Cronbach’s Alpha test for all variables (except the variable

which consisted of one question such as gender, age, personal income, and household income). It is generally accepted that Cronbach's Alpha should be greater than 0.7 [24]. Our measurement of all variables had Cronbach's Alpha greater than 0.8; table III shows the operational definitions of the construct variables. The table IV demonstrates validity and reliability assessment of the construct variables. To measure validity, the researchers employed exploratory factor analysis (EFA) to analyze factor loading for all variables (except the variable that consisted of only one question).

TABLE IV: CONSTRUCT VALIDITY AND RELIABILITY ASSESSMENT

Construct	Indicators	Factor loading	Cronbach's Alpha
Purchase intention (X3)	PI 1	0.769	0.810
	PI 2	0.900	
	PI 3	0.884	
	CL 1	0.820	
Customer loyalty (X4)	CL 2	0.824	0.841
	CL 3	0.847	
	CL 4	0.800	
	CS 1	0.780	
Customer Satisfaction (X5)	CS 2	0.824	0.828
	CS 3	0.843	
	CS 4	0.805	
	PQ 1	0.799	
Perceived quality (X6)	PQ 2	0.836	0.806
	PQ 3	0.750	
	PQ 4	0.669	
	PQ 5	0.693	
Perceived price (X7)	PP 1	0.679	0.816
	PP 2	0.808	
	PP 3	0.774	
	PP 4	0.769	
Perceived service quality (X8)	PP 5	0.767	0.873
	PSQ 1	0.840	
	PSQ 2	0.858	
	PSQ 3	0.854	
Store assortment (X9)	PSQ 4	0.852	0.835
	SA 1	0.754	
	SA 2	0.824	
	SA 3	0.861	
	SA 4	0.832	

(See indicators and the questionnaire in the appendix)

C. The Dependent Variable

In this research, the amount of retail purchase (the total score of Y) was measured by using the following equation:

$$Y = Y1 \times Y2 + Y3 \times Y4 + Y5 \times Y6 \quad (1)$$

In equation (1), Y1 = the amount of food purchased per time, Y2 = frequency of food purchased in a month, Y3 = the

amount of consumer goods purchased per time, Y4 = frequency of consumer goods purchased in a month, Y5 = the amount of purchase from shops inside the store (e.g. book stores, restaurants, and so on) per time, and Y6 = frequency of purchase from shops inside the store in a month.

IV. RESULTS

A. Correlation Analysis

According to TABLE V, an amount of purchase (Y) had a relationship with X1 (distance from home), X2 (distance from workplace), X3 (purchase intention), X5 (customer satisfaction), X8 (perceived service quality), X10 (personal income), and X11 (household income). Hence, we accepted hypotheses: 1, 2, 3, 5, 8, 10 and 11.

TABLE V: CORRELATIONS BETWEEN THE INDEPENDENT VARIABLES AND DEPENDENT VARIABLE

The independent variables	Correlations with the dependent variable (Y)
X1	.161(**)
X2	.201(**)
X3	.321(**)
X4	.088
X5	.098(*)
X6	.047
X7	.047
X8	.116(*)
X9	.023
X10	.191(**)
X11	.133(**)

(*) = significance at 0.05, (**) = significance at 0.01

B. Multiple Regression Analysis

In this research, stepwise multiple regression analysis was employed to create a linear equation. The results from table VI delineate three possible models, and we decided to select model 3 since the value of R² was more than the other two.

TABLE VI: MODELS FROM STEPWISE MULTIPLE REGRESSION ANALYSIS

Model	R	R ²	Adjusted R ²	Standard Error	R ² Change	Sig.
1	.321(1)	0.103	0.101	14.724	0.103	0
2	.372(2)	0.139	0.134	14.445	0.036	0
3	.402(3)	0.162	0.156	14.264	0.023	0.001

(1) variables: Constant and X3, (2) variables: Constant, X3, and X10, (3) variables: Constant, X3, X10, and X2

According to TABLE VI, factors that had a statistically significant impact on an amount of purchase were X3 (purchase intention), X10 (personal income), and X2 (distance from workplace).

The only three factors which affected an amount of purchase were purchase intention (X3), personal income (X10), and distance from workplace (X2). Here, we determined two equations predicting the amount of purchase of retail customers.

$$Y = 11.352 + 4.829 X3 + 1.707 X10 + 1.098 X2 \quad (2)$$

$$Z = 0.311 X3 + 0.161 X10 + 0.156 X2 \quad (3)$$

Equation (2) is the equation before standardization, whereas equation (3) is the equation after standardization. This research shows that purchase intention was the greatest predictor of the amount of purchase, followed by household income, and the distance from workplace.

TABLE VII: CONSTANTS AND COEFFICIENTS DEPRIVED FROM STEPWISE MULTIPLE REGRESSION ANALYSIS

Model	Before Standardization			Standardized Coefficients	Sig.
		Coefficients	Standard error		
3	Constant	11.352	1.672		000.
	X3	4.829	698.	311.	000.
	X10	1.707	484.	161.	000.
	X2	1.098	322.	156.	001.

V. DISCUSSIONS

A. Theoretical Implications

In this research, when considering variables that had a direct effect on the amount of purchase, we found that a far distance from workplace (X2) had a positive effect on the amount of purchase (Y); this result was in contrast to that of Hansen & Solgaard [6] which showed that a far distance had a negative impact on the amount of purchase. However, we scrutinized the components of the amount of purchase (Y) by using regression analysis; then we found that distance from workplace had a positive effect on the amount of purchase per time (e.g. Y1, Y3, and Y5); in contrast, distance from workplace has no relationship with frequency of purchase (e.g. Y2, Y4, and Y6). The following equations explain impacts of distance on the components of purchase (Y).

$$Y1 = 2.544 + .171 X2 \quad (R^2 = 0.056, sig = 0.000) \quad (4)$$

$$Y2 = 2.480 - .035 X2 \quad (R^2 = 0.003, sig = 0.226) \quad (5)$$

$$Y3 = 2.399 + .151 X2 \quad (R^2 = 0.041, sig = 0.000) \quad (6)$$

$$Y4 = 1.991 + .022 X2 \quad (R^2 = 0.002, sig = 0.421) \quad (7)$$

$$Y5 = 1.900 + .151 X2 \quad (R^2 = 0.038, sig = 0.000) \quad (8)$$

$$Y6 = 1.871 + .045 X2 \quad (R^2 = 0.005, sig = 0.142) \quad (9)$$

In the case of purchase intention (X3), this psychological construct was a variable which can be used to project the amount of purchase at modern retailers. According to equation (3), purchase intention provided the greatest coefficient at 0.311. There are a number of theoretical explanations that can describe the antecedents of intention such as The Theory of Reasoned Action and The Theory of Planned Action [10], [25], [26].

In terms of personal income (X10), this socioeconomic factor was a significant indicator depicting the amount of purchase. However, it had less impact on the amount of purchase than purchase intention did.

B. Managerial Implications

The study shows that the impact of purchase intention on the amount of purchase was the most influential factor, so marketing strategies which can increase purchase intention are plausible methods for managers and executives of modern retail firms.

VI. SUGGESTIONS AND FUTURE RESEARCH

Such equations (4 - 9) suggest that future research should be conducted by questioning customers about which store is customer's last visited retail store, not which store is customer's most visited store. Doing so may enable the finding showing the impact of frequency on the amount of purchase.

For future research, structure equation modeling (SEM) is recommended to use to find causal relationships among variables. SEM can provide direct and indirect effects of the structure of relationships. Furthermore, not only the quantitative research approach, but also the qualitative approach is useful especially grounded theory and phenomenology to find out new theoretical models and explanations.

VII. CONCLUSION

The purpose of this research was to investigate what factors affect Thai customers purchasing goods and services from retail stores in Bangkok. Factors correlated with purchase of goods and services from modern retail stores were distance from home, distance from workplace, purchase intention, customer satisfaction, perceived service quality, personal income, and household income. However, when considered with significant factors and multicollinearity, only three factors: distance from workplace (X2), purchase intention (X3), and personal income (X10) could be used to create a predicting equation (see equation (3)). However, this result was in contrast to that of Hansen & Solgaard [6] which showed that a far distance had a negative impact on the amount of purchase. Perhaps, this research questioned customers about which store is customer's last visited retail store, not which store is customer's most visited store. Questioning about the most visited store may nullify the impact of frequency on the amount of purchase. However, when considering the factors in equation (3), we found that purchase intention was the greatest factor; this discovery implies managers and executives of retail firms how important of this psychological factor which intern may sharp the strategies of doing retail businesses. Structure equation modeling (SEM) and qualitative research strategies like grounded theory and phenomenology may be helpful for future research.

APPENDIX

A. The Questionnaire

1. Which modern retail store do you visit most?
(Multiple choices)

The amount of purchase (seven-interval scales)

2. Approximately, how much per time do you buy food products from that store?
 3. Approximately, how many times in each month do you buy food products from that store?
 4. Approximately, how much per time do you buy non-food products from that store?
 5. Approximately, how many times in each month do you buy non-food products from that store?
 6. Approximately, how much per time do you buy products or services from shops inside the store?
 7. Approximately, how many times in each month do you spend to buy products or services per time from shops inside the store?
- Location (seven-interval scales)
8. What is the distance between your home and the store?
 9. What is the distance between your workplace and the store?
- Purchase Intention (seven-semantic differential scales)
10. I intend to buy more than 800 Baht per time in the next following month. (impossibly / definitely)
 11. I intend to visit the store more than 6 times in the next following month. (impossibly / definitely)
 12. I intend to buy more than 800 Baht per time in the next following 3 months. (impossibly / definitely)
 13. I intend to visit the store more than 18 times in the next following 3 months. (impossibly / definitely)
 14. I intend to buy more than 800 Baht per time in the next following 6 months. (impossibly / definitely)
 15. I intend to visit the store more than 36 times in the next following 6 months. (impossibly / definitely)
- Customer Loyalty (seven-semantic differential scales)
16. I try to visit this store when I want to buy goods or services [27]. (strongly agree/ strongly disagree)
 17. This store is the first choice when I want to buy goods or service [27]. (strongly agree/ strongly disagree)
 18. For me, this store is the best store that I should buy goods or services. (strongly agree/ strongly disagree)
 19. I will recommend this store to other people. (strongly agree/ strongly disagree)
- Customer satisfaction (seven-semantic differential scales)
20. From your experience, what is the overall satisfaction that you have gained from this store [28, 29]. (very satisfied/ vary dissatisfied)
 21. In your opinion, what is the level that this store fulfils your expectation [28, 29]? (much lower than expected/ much more than expected)
 22. This store has never disappointed me. (strongly agree/ strongly disagree)
 23. How likely that this store can be an ideal store [28, 29]? (very close to ideal/ far from ideal)
- Perceived quality (seven-semantic differential scales)
24. In my opinion, this store sells good quality products [6]. (strongly agree/ strongly disagree)
 25. In my opinion, this store sells clean food products. (strongly agree/ strongly disagree)
 26. In my opinion, this store sells products which have standards (e.g. ISO, TIS, and Halal). (strongly agree/ strongly disagree)
 27. I think goods sold in this store have higher standards than other stores. (strongly agree/ strongly disagree)
 28. This store sells durable products. (strongly agree/ strongly disagree)
- Perceived price (seven-semantic differential scales)
29. I think the price labels in this store are expensive. (strongly agree/ strongly disagree)
 30. I have received a small discount from this store. (strongly agree/ strongly disagree)
 31. I have received very little money return from the store. (strongly agree/ strongly disagree)
 32. I have received very few gifts/ gift vouchers from this store. (strongly agree/ strongly disagree)
 33. When I consider in details, I found that the average price of products in this store is very expensive. (strongly agree/ strongly disagree)
- Perceived service quality (seven-semantic differential scales)
34. I think that the employees of this store fully service me. (strongly agree/ strongly disagree)
 35. The cashers in this store work very well. (strongly agree/ strongly disagree)
 36. I think that the employees of this store are very friendly [21]. (strongly agree/ strongly disagree)
 37. I think that the employees of store solve problems very quickly. (strongly agree/ strongly disagree)
- Store Assortment (seven-semantic differential scales)
38. I think that this store sells a wide range of products. (strongly agree/ strongly disagree)
 39. I can compare a lot of products in this store. (strongly agree/ strongly disagree)
 40. Only one visit, I can get all products which I want in this store. (strongly agree/ strongly disagree)
 41. This store always sells new products. (strongly agree/ strongly disagree)
- Socioeconomics (seven-interval scales)
42. What is your personal income?
 43. What is your household income?
- Personal information
44. Age
 45. Gender
 46. Occupation

B. The Indicators of the Constructs and Dependent Variable

- The score of Y1= question (2)
 The score of Y2= question (3)
 The score of Y3= question (4)
 The score of Y4= question (5)
 The score of Y5= question (6)
 The score of Y6= question (7)
 The total score of Y = Y1 × Y2 + Y3 × Y4 + Y5 × Y6
 The score of PI1 = question (10) x question (11)
 The score of PI2 = question (12) x question (13)
 The score of PI3 = question (14) x question (15)

- The score of CL1 = question (16)
- The score of CL2 = question (17)
- The score of CL3 = question (18)
- The score of CL4 = question (19)
- The score of CS1 = question (20)
- The score of CS2 = question (21)
- The score of CS3 = question (22)
- The score of CS4 = question (23)
- The score of PQ1 = question (24)
- The score of PQ2 = question (25)
- The score of PQ3 = question (26)
- The score of PQ4 = question (27)
- The score of PQ5 = question (28)
- The score of PP 1 = question (29)
- The score of PP 2 = question (30)
- The score of PP 3 = question (31)
- The score of PP 4 = question (32)
- The score of PP 5 = question (33)
- The score of PSQ 1= question (34)
- The score of PSQ 2= question (35)
- The score of PSQ 3= question (36)
- The score of PSQ 4= question (37)
- The score of SA 1= question (38)
- The score of SA 2= question (39)
- The score of SA 3= question (40)
- The score of SA 4= question (41)

REFERENCES

[1] P. Kotler and K. L. Keller, *Marketing Management*, 12nd ed., Upper Saddle River: Pearson Education, Inc. 2006.

[2] H. H. Johnson and S. M. Kim, "When strategy pales: Lessons from the department store industry," *Business Horizons*, vol. 52, no. 6, pp. 583-593, 2009.

[3] M. Farhangmehr, S. Marques, and J. Silva, "Hypermarkets versus traditional retail stores -- consumers' and retailers' perspectives in Braga: a case study," *Journal of Retailing and Consumer Services*, vol. 8, no. 4, pp. 189-198, 2001.

[4] P. T. L. Popkowski Leszczyc, A. Sinha, and A. Sahgal, "The effect of multi-purpose shopping on pricing and location strategy for grocery stores," *Journal of Retailing*, vol. 80, no. 2, pp. 85-99, 2004.

[5] P. Kotler and G. Armstrong, *Principles of Marketing*, Upper Saddle River, New Jersey: Pearson Education, 2004.

[6] T. Hansen and H. S. Solgaard, "Measuring the Effect of Distance on Consumer Patronage Behavior: a structural equation model and empirical results," *New Perspectives on Retailing and Store Patronage Behavior: A study of the Interface Between Retailers and Consumers* Boston: Kluwer Academic Publishers, 2004.

[7] A. Finn, and J. J. Louviere, "Shopping center image, consideration, and choice: Anchor store contribution," *Journal of Business Research*, vol. 35, no. 3, pp. 241-251, 1996.

[8] J. S. Armstrong, V. G. Morwitz, and V. Kumar, "Sales forecasts for existing consumer products and services: Do purchase intentions contribute to accuracy?," *International Journal of Forecasting*, vol. 16, no. 3, pp. 383-397, 2000.

[9] J. J. Joseph Cronin, M. K. Brandy, and G. T. M. Hult, "Assessing the Effects of Quality, Value, and Customer Satisfaction on Consumer Behavioral Intentions in Service Environments," *Journal of Retailing*, vol. 76, no. 2, pp. 25, 2000.

[10] M. Fishbein and I. Ajzen, *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*, Reading, MA: Addison-Wesley, 1975.

[11] V. G. Morwitz, J. H. Steckel, and A. Gupta, "When do purchase intentions predict sales?," *International Journal of Forecasting*, vol. 23, no. 3, pp. 347-364, 2007.

[12] H. J. R. Juhl, K. Kristensen, and P. Stergaard, "Customer satisfaction in European food retailing," *Journal of Retailing and Consumer Services*, vol. 9, no. 6, pp. 327-334, 2002.

[13] D. W. Wallace, J. L. Giese, and J. L. Johnson, "Customer retailer loyalty in the context of multiple channel strategies," *Journal of Retailing*, vol. 80, no. 4, pp. 249-263, 2004.

[14] V. Kumar and D. Shah, "Building and sustaining profitable customer loyalty for the 21st century," *Journal of Retailing*, vol. 80, no. 4, pp. 317-329, 2004.

[15] M. I. Gomez, E. W. McLaughlin, and D. R. Wittink, "Customer satisfaction and retail sales performance: an empirical investigation," *Journal of Retailing*, vol. 80, no. 4, pp. 265-278, 2004.

[16] M. D. Johnson, A. Gustafsson, T. W. Andreassen *et al.*, "The evolution and future of national customer satisfaction index models," *Journal of Economic Psychology*, vol. 22, no. 2, pp. 217-245, 2001.

[17] W. Ulaga, and S. Chacour, "Measuring Customer-Perceived Value in Business Markets: A Prerequisite for Marketing Strategy Development and Implementation," *Industrial Marketing Management*, vol. 30, no. 6, pp. 525-540, 2001.

[18] J. Sa'nchez, L. s. Callarisa, R. M. Rodriguez *et al.*, "Perceived value of the purchase of a tourism product," *Tourism Management*, vol. 27, no. 3, pp. 394-409, 2006.

[19] M. G. Gallarza and I. Gil Saura, "Value dimensions, perceived value, satisfaction and loyalty: an investigation of university students' travel behaviour," *Tourism Management*, vol. 27, no. 3, pp. 437-452, 2006.

[20] P. Kotler, *Marketing Management*, 7th ed., Upper Saddle River: Pearson Education, Inc. 2003.

[21] T. Hansen, "Intertype competition: specialty food stores competing with supermarkets," *Journal of Retailing and Consumer Services*, vol. 10, no. 1, pp. 35-49, 2003.

[22] L. G. Schiffman and L. L. Kanuk, *Consumer Behavior* 7th ed., Upper Saddle River, New Jersey: Prentice-Hall, Inc. 2000.

[23] M. Figuié and P. Moustier, "Market appeal in an emerging economy: Supermarkets and poor consumers in Vietnam," *Food Policy*, vol. 34, no. 2, pp. 210-217, 2009.

[24] J. F. Hair, W. C. Black, B. J. Babin *et al.*, *Multivariate Data Analysis: A Global Perspective*, 7th ed., Upper Saddle River, New Jersey: Pearson Prentice Hall, 2010.

[25] M. Fishbein, and I. Ajzen, *Predicting And Changing Behavior: The Reasoned Action Approach*, New York: Psychology Press, 2010.

[26] I. Ajzen, "The theory of planned behavior," *Organizational Behavior and Human Decision Processes*, vol. 50, no. 2, pp. 179-211, 1991.

[27] H. H. Chang and S. W. Chen, "The impact of customer interface quality, satisfaction and switching costs on e-loyalty: Internet experience as a moderator," *Computers in Human Behavior*, vol. 24, no. 6, pp. 2927-2944, 2008.

[28] M. D. Johnson, A. Herrmann, and A. Gustafsson, "Comparing customer satisfaction across industries and countries," *Journal of Economic Psychology*, vol. 23, no. 6, pp. 749-769, 2002.

[29] A. Serenko, "Student Satisfaction with Canadian Music Programs: The Application of The American Customer Satisfaction Model in Higher Education," *Assessment and Evaluation in Higher Education*, vol. 35, no. 4, pp. 19, 2010.



Wornchanok Chaiyasoonthorn is a lecturer at Administration and Management Collage, King Mongkut's Institute of Technology Ladkrabang, Thailand. Her research interests include management sciences, marketing management, and technology management.



Watanyoo Suksa-ngiam is a director of Ruam Jit Engineering Company Limited and an independent researcher, Thailand. He is interested in decision sciences and technology adoption.