

The Effects of Service Innovation and Service Quality on Customer's Loyalty in Small Service Enterprise: A Case Study on Car Care Business in Bangkok.

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— *Review of* —
**Integrative
 Business &
 Economics**
 — *Research* —

ABSTRACT

This study examines the effects of service innovation and service quality in enhancing the loyalty of customers in small service enterprise by using case study of car care business in Bangkok. By applying American Customer Satisfaction Index (ACSI) model, theoretical framework is developed to examine the causal relationships among service innovation, service quality, perceived value, customer satisfaction and loyalty. Data were collected by questionnaire survey of car care customers in Bangkok and analyzed by using Structural Equation Model (SEM). The findings of this study support and confirm the framework. Accordingly, this implies that car care service providers should improve their service quality through the invention of service innovation in order to enhance customer loyalty, which can help to build up their sustainable competitive advantage to compete in today high competitive and aggressive market.

Keywords: Service innovation, Service quality, Customer satisfaction, Customer's loyalty, SERVPERF, The American Customer Satisfaction Index (ACSI), Structural Equation Model (SEM).

I. INTRODUCTION

The concept of service innovation is becoming more captivated when the world economic and the wealth of many countries are from the service sector. During the last decade, it is accepted that the world economic has turned to be the service based sector. It was found that the main economic value and employment rate are from the service sector Bessant, J. and J. Tidd, (2009). Furthermore, in every sectors of business both manufacturing and service sections now start to focus on the fresh and innovative service over the competitors to meet the customers' satisfaction which is always beyond their expectations Ida Gremyr et al. (2010) and Wayne A. Neu and Stephen W. Brown (2005).

Service innovation are widely studied and developed to be a component of administrative strategies for the nations, organizations and large companies due to the potential in operation and competitive business effectively Bessant, J. and J. Tidd, (2009). As a result, customers are satisfied, become repeating guests or recommend the

service to others. Finally, this will bring an income and value added to the organization as well. J. J. Francis (2011) and T. Dotzel et al. (2013).

In the meantime, studies on the impact of service innovation on the operation i.e.; service quality, value, satisfaction, income, etc. of small enterprise has been less concerned and not well planned. In spite of this is a high valued market and be a main component of the developing countries' economy. Specifically, small enterprise in Thailand play an important role in GDP of the country than the medium one. Office of the National Economics and Social Development Board, Thailand (2013).

The purpose of this research is to study on the effects and relationships between service innovation and service quality available to small service enterprises focusing on customer satisfaction and customer loyalty to service providers. Car care business will be used as case studies because the current competition is more intense. With many car care services in the market, this allows customers the opportunity to choose a service replacement easily due to low switching cost. Service providers also have to compete with customer needs and high expectations. Moreover, the economic impact on the increasing cost of service structures (labor, equipment, rental, etc.), allowing operators to increase prices for service. This has a direct impact on the ability to compete. Especially in the middle and lower market, which mainly focus on price as the main competitive strategy. Therefore, to survive under high competition and continue sustainable growth in the future, the operator needs to focus on creating competitive advantage in other areas apart from the price only. For example; to improve quality of service, to create the brand image, to create and develop the new knowledge and to bring about the innovative services that can create a competitive advantage in the market.

II. LITERATER REVIEW

1) Service Innovation

The word "innovation" has been widely studied and discussed, but the definition or clear meaning including the understanding of the innovation is still different according to perspective, basic knowledge and academic backgrounds of each person S. Gopalakrishnan and P. Bierly (2011). However, if we consider from the core of definitions, we will find out that there are three main components of innovation.

1.1 Newness is a new thing that has been developed. It could be a product, service, or process. It could either has been developed from the original one or created for a brand new one. A. Schilling and A. Werr (20019); F. Gallouj and M. Savona (2008) and H. Liisa (1990).

1.2 Economic Benefits is the innovation that can increase value of the new developed things. The benefits could be either money or non-monetary WANG Ke-yi and LIU Lin-lin (2010); J. R. Bryson (2004) and T. Dotzel et al. (2013).

1.3 Knowledge and Creativity Idea what is considered to be innovative must be from the use of knowledge and creativity as a basic for the development of emerging. Not due to imitation or repetition, etc. A. Schilling and A. Werr (20019); P. Windrum and M. García-Goñi (2008) and T. Mechanism (2003).

Considering the viewpoint of entrepreneurs, innovation means products or new services derived from the integration of knowledge, creativity, skill and experience in technology or management in order to meet the market demand, cause investment and generate income for the organization. (Data: National Innovation Agency, 2007)

Since car care business is a service enterprise, all about technological innovation, product and service process are used together. Main focus is on increasing service efficiency to create a competitive advantage in order to meet customer needs and satisfaction. The definition of a service innovation in this research is to provide a new form of service which is different from most competitors in its class recognized by clients such as attractive and reliable shop decoration, professional staff and introduction of new technologies.

2) Service Quality

Service Quality is the difference between a service from customer expectation and service of customer perception. There are four factors that cause the expectations of the clients including; Word of Communications, Personal Needs, Past Experience and External Communications both directly and indirectly. A. Parasuraman et al. (1994) and A. Parasuraman et al. (2013). When the service has been delivered from service providers, this will then caused a comparison to the quality of service received and the quality of service expected. If it is equal to or greater than expected, clients will be satisfied and return. In contrast, if the service quality is below expectation, they will be dissatisfied and not come back again. Josée Bloemer et al. (1999) and M. M. Akbar and N. Parvez (2009).

SERVQUAL is a theory of measuring service quality developed by Parasuraman et al. (1988). It has been accepted as the most commonly applied rater by measure the expectations and perceptions of customers about service quality in five dimensions including; Tangibles, Reliability, Responsiveness, Assurance, and Empathy. Although SERVQUAL is popular and mainly used for evaluate service quality, it also has some

drawbacks. Some wordings that mean the same to make the score inflated expectations, the points are concentrated at the highest levels of quality of service metrics. This makes it becoming difficult to rank the significant factors in the delivery of quality services according to consumer's perception. In addition, most of people who use the service always expect for valued service, so that, the researcher will not use the SERVQUAL rater to evaluate service quality of car care business in this study. But the researcher will use SERVPERF developed by Cronin and Taylor (1992), which is similar to the SERVQUAL. We will measure only from the perceived value, not in terms of expectations K. M. Elliott (1994) and J. J. Cronin and S. A. Taylor (2004).

3) Customer Satisfaction

Any business operations all have similar goal in terms of high sales volume with lower or reasonable cost. The ability to meet customer needs and satisfaction is considered important and be one of keys success for business to overcome the competitors. The development on appearance and quality of products and services are required among the high competitiveness of rivals and aggressive price war. Customers then have more options to compare. For this reason, if the company can satisfy customer needs, they will retain existing customers. And at the same time, they are able to expand the target of new customers by word of mouth or recommendations.

University of Michigan, USA has developed The American Customer Satisfaction Index Model: ACSI in order to gain ACSI index. It is new a measurement system that is based on the clients. It is used to evaluate and improve the effectiveness and efficiency of the economic composition, industry sector and national economy. ACSI's annual assessment is used to estimate the customer level of satisfaction, evaluate overall presentation of the organization to the customer. A variety of indicators are applied to measure the total satisfaction of its customers. Those indicators will be variables that affect them in the future. While those variables are easy to read and can be used as a central index to compare customer satisfaction of other company. ACSI is not only used to measure consumer experience but also be used as a part of relationship system between causes and results, which describes about brand loyalty in the end. C. Fornell et al. (2011).

4) Customer Loyalty

In terms of marketing, loyalty means brand loyalty or customer loyalty considered important to all companies. The more customers are loyal to the brand, the more brand value gain. When customers are loyal to the brand, it also represents an opportunity to

strengthen the branding by making revenue and lessen the cost of management. This will create a chance to make greater profit and expand the market too.

According to the marketing writings, customer loyalty has been defined in two different types. Jacob Jacoby and David B. Kyner, (1993).

1. Attitudinal loyalty such as satisfaction, perception of good relationships, repurchase intention.
2. Behavior loyalty can be evaluated in the form of repurchase, recommend and enlarge the scope of the relationship such as trying to buy more.

Then, The measurement of customer loyalty can be measured by four aspects A. Parasuraman et al. (1994) and A. Parasuraman et al. (2013): (1) Word of mouth communications, (2) Repurchase intention, (3) Price sensitivity and (4) Complaining behavior. But, in this study will measure behavioral intention of customer by considering from only three dimensions including; Word of mouth communications, Repurchase intention and Price sensitivity. Complaining behavior is excluded because the questionnaire is unable to reflect actual behavior Josée Bloemer et al. (1999).

III. METHODOLOGY

This research used quantitative analysis to determine the effects of service innovation and service quality in enhancing the loyalty of customers. The research framework as figure 1:

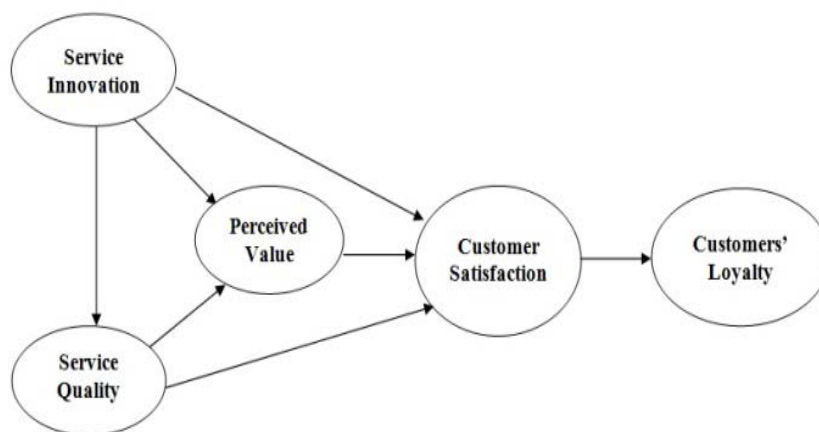


Fig. 1 Research framework

Figure 1, Research framework for this study is applying American Customer Satisfaction Index (ACSI) model, theoretical framework is developed to examine the causal relationships among service innovation, service quality, perceived value,

customer satisfaction and loyalty C. Fornell et al. (2011).

1) Sample Selection:

Purposive Sampling is applied to this study. The questionnaires will be given to only the customers of car care business in Bangkok focusing on middle-market entrepreneurs particularly. (Wash and vacuum service 120 to 200 baht, wash and wax service 300 - 400 baht) total 230 observations.

2) Instrument development:

The questionnaire is based on constructs validated in prior research, standardized and adapted to the content of this study. The constructs include, service innovation, and service quality, perceived value, customer satisfaction, and customer's loyalty. All questionnaire items were measured using a 5-point Likert scale ranging from "strongly disagree" to "strong agree". The questionnaire was tested for clarity and conciseness by 30 car care's customers and revision was made according to comments and suggestion data analysis.

3) Data analysis:

This study, authors process the data using statistical software package STATA by explaining the nature of the data two parts: Descriptive statistic consists of a frequency distribution, mean, percentage, standard deviation, etc., and Inferential statistic to describe the relationship of various factors using structural equation modeling analysis (Structural Equation Modeling: SEM)

$$Y = \beta_0 + \beta_1 SI + \beta_2 SQ + \beta_3 PV + \beta_4 CS + \varepsilon$$

Where

Y = Customer Loyalty

SI = Service Innovation

SQ = Service Quality

PV = Perceived Value

CS = Customer Satisfaction

A significant level of 0.05 was set for statistical test statistic calculation.

IV. RESULTS

Table 1 illustrates the relevant overall fit indices for constructs of service innovation, service quality, perceived value, customer satisfaction, and customer's loyalty. Although there are some indices values below average rate (RMSEA 0.06, CFI \geq 0.95, SRMR \leq 0.05) T. A. Industry (2010), the coefficient of determination: CD is

as high as 0.936, indicating that the hypothesis of a causal model relates with the empirical data well.

Fit statistic	Value	Description
Likelihood ratio		
chi2_ms(1318)	4527.27	Model vs. Saturated
p > chi2	0	
Population error		
RMSEA	0.104	Root mean squared error of approximation
Information criteria		
AIC	17193	Akaike's information criterion
BIC	17761.5	Bayesian information criterion
Baseline comparison		
CFI	0.687	Comparative fit index
TLI	0.673	Tucker-Lewis index
Fit statistic	Value	Description
Size of residuals		
SRMR	0.079	Standardized root mean squared residual
CD	0.936	Coefficient of determination

Table 1 The goodness of fit statistics

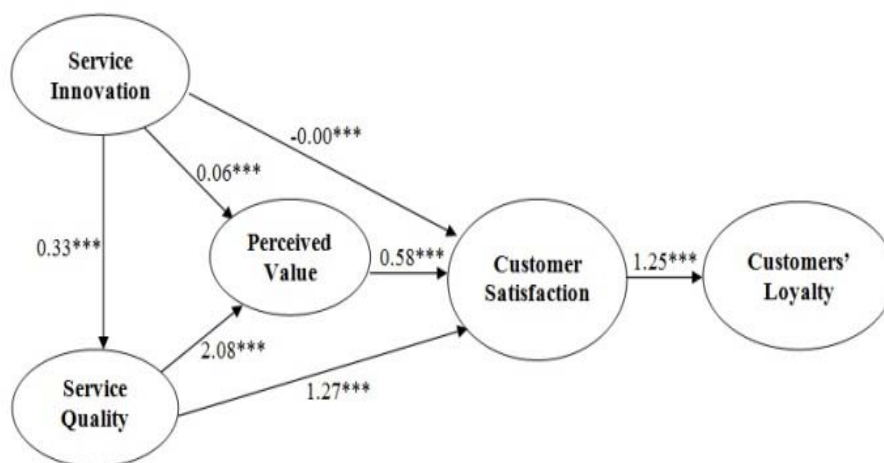


Fig. 2 Structural Model (result)

As shown in Figure 2, the standardized regression weights (r) and p-value in the structural model are presented. All hypotheses are supported by the empirical data shown: service innovation is effect on service quality (r = 0.33, p <0.001), service innovation is effect on perceived value (r = 0.06, p <0.001), service innovation is effect

on customer satisfaction ($r = -0.00$, $p < 0.001$), service quality is effect on perceived value ($r = 2.08$, $p < 0.001$), service quality is effect on customer satisfaction ($r = 1.27$, $p < 0.001$), perceived value is effect on customer satisfaction ($r = 0.58$, $p < 0.001$), and customer satisfaction is effect on customer's loyalty ($r = 1.25$, $p < 0.001$).

V. CONCLUSION AND DISCUSSION

Based on the path analysis shown above, there are six positive relationships indicating and only one negative indicating. Its show that service innovation, service quality, perceived value, and customer satisfaction have a direct impact on customer's loyalty accordant with ACSI model. All customer satisfaction has a direct impact on customer's loyalty. For example, when the customers will be satisfied with service quality of that car care business, they will have a loyalty to that enterprise. This may cause word of mouth, repurchase and still use the service despite the price is slightly adjusted. Service quality and perceived value has a direct effect on customer satisfaction. Customers will be satisfied with the service quality and values meet expectation. To consider with standardized regression weights (r), we found that service quality has an impact on customer satisfaction more than service innovation and perceived value. Service innovation and service quality have direct effect on perceived value. This means customer can feel the value of quality service and service innovation from the provider. While service innovation has a direct effect on service quality when the innovation was applied to enhance the quality of service.

According to the study , it shows that apart from maintaining service standard or improve quality of service, bringing innovation to the service is another strategy that can help car care business enterprise generate more profits and continue business sustainably under the intense competition at present.

Even if service innovation has an effect on customer satisfaction which is related with the research of Thomas Dotzel, Venkatesh Shankar, and Leonard L. Berry., standardized regression weight (r) is still low. This may cause from the unacknowledged of service innovation for car care business among customers. It sometimes becomes difficult to distinguish between innovation and quality service apparently. Moreover, the number of sample size only 230 observations might be not enough comparing to the complicated ASCI model applied to this study.

ACKNOWLEDGMENTS

I am greatly grateful to Assoc.Prof. Dr. Tatre Jantarakolica, Dr. Kobkul Jantarakolica, and Lecturer Jutamas Wongkantarakorn for their kind support and guidance to complete my paper. Moreover, I would like to thank you all of the respondents for the kindly cooperation in answering all questions.

REFERENCES

- [1] A. Parasuraman, V. A. Zeithaml, and L. L. Berry, "Model Service Its Quality and Implications for Future", *Journal of Marketing*, vol. 49, no. 4, pp. 41–50, 2013.
- [2] A. Parasuraman, V. A. Zeithaml, and L. L. Berry, "Reassessment of expectations as a comparison standard in measuring service quality: implications for future research",

- Journal of Marketing, vol. 58, pp. 111-24, 1994.
- [3] A. Schilling and A. Werr, managing and organizing for innovation in service firms A literature review with annotated bibliography. 2009.
- [4] Bessant, J. and J. Tidd, "Managing Innovation: Integrating Technological, Market and Organizational Change", 4th (ed), West Sussex : John Wiley & Sons Ltd.. 2009.
- [5] C. Fornell, M. D. Johnson, E. W. Anderson, J. Cha, C. Fornell, M. D. Johnson, E. W. Anderson, J. Cha, and B. E. Bryant, "The American Customer Satisfaction Index Nature , Purpose , and Findings", vol. 60, no. 4, pp. 7–18, 2011.
- [6] WANG Ke-yi and LIU Lin-lin, "An Empirical Study of Service Innovation's Effect on Customers' Re-purchase Intention in Telecommunication Industry", Canadian Social Science vol. 6, no. 5, pp. 190–199, 2010.
- [7] F. Gallouj and M. Savona, "Innovation in services: a review of the debate and a research agenda", *J. Evol. Econ.*, vol. 19, no. 2, pp. 149–172, Sep. 2008.
- [8] H. Liisa, "Innovativeness and its Indicators in Small- and Medium-sized Industrial Enterprises", *International Small Business Journal*, vol. 9, no. 1, pp. 64-79, 1990.
- [9] Ida Gremyr, Nina Löfberg, Lars Witell, "Service innovations in manufacturing firms", *Managing Service Quality*, Vol. 20 Iss: 2, pp.161 – 175, 2010.
- [10] J. J. Francis, "Impact of Technology on Productivity and Service Quality among Indian Airline Services", *International Journal of Management*, vol. 6502, pp. 33–43, 2011.
- [11] J. J. Cronin and S. A. Taylor, "SERVPERF Versus SERVQUAL: Reconciling Performance-Based and Measurement of Service Quality", pp. 125–132, 1994.
- [12] J. R. Bryson, "Understanding the Relationship between Services and Innovation The RESER Review of the European Service Literature on Innovation, 2002", vol. 24, no. 1, pp. 205–223, 2004.
- [13] Josée Bloemer, Ko de Ruyter, Martin Wetzels, "Linking perceived service quality and service loyalty: a multi-dimensional perspective", *European Journal of Marketing*, Vol. 33 Iss: 11/12, pp.1082 – 1106, 1999.
- [14] Jacob Jacoby and David B. Kyner, "Brand Loyalty vs. Repeat Purchasing Behavior", *Journal of Marketing Research*, Vol. 10, No. 1, pp. 1- 9, 1973.
- [15] K. M. Elliott, "SERVPERF VERSUS SERVQUAL: A MARKETING MANAGEMENT DILEMMA WHEN ASSESSING SERVICE QUALITY", pp. 56–62, 1994.
- [16] M. M. Akbar and N. Parvez, "IMPACT OF SERVICE QUALITY, TRUST, AND CUSTOMER SATISFACTION ON CUSTOMERS", vol. 29, no. 1, pp. 24–38, 2009.

- [17] P. Windrum and M. García-Goñi, “A neo-Schumpeterian model of health services innovation”, *Res. Policy*, vol. 37, no. 4, pp. 649–672, May 2008.
- [18] S. Gopalakrishnan and P. Bierly, “Organizational Innovation and Strategic Choices: A Knowledge-Based View”, *ACAD MANAGE PROC*, pp. 422–426, 2011.
- [19] T. A. Industry, “An Empirical Model of the Relationship between Manufacturing Capabilities: Evidence from the Thai Automotive Industry”, vol. 50, no. 2, 2010.
- [20] T. Dotzel, V. Shankar, and L. L. Berry, “Service Innovativeness and Firm Value”, vol. L, no. April, pp. 259–276, 2013.
- [21] T. Mechanism, “Diffusion of Innovations, by Everett Rogers (1995)”, no. 1995, pp. 1–5, 2003.
- [22] Wayne A. Neu, Stephen W. Brown, “Forming Successful Business-to-Business Services in Goods-Dominant Firms”, *Journal of Service Research*, Vol. 8, pp.13- 17, 2005.
- [23] Report of small and medium-sized enterprises. Year 2556, Office of the National Economics and Social Development Board, Thailand.