An Empirical Examination of the Mean-End Chain Model of Perception of e-Service Quality in Thai Telco Service Providers

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Abstract

The importance of service quality to improve customer satisfaction and loyalty in traditional settings has been well established through the use of instruments as SERVQUAL. Using an e-Service quality (e-SQ) was used to evaluate the service quality of telco service providers from the consumer's perspective. Most of the current websites try to satisfy customer by providing interactivity and individualization in order to build up sale, companies must go beyond tracking what the customers did or didn't do online. This study considers, within the context of Thai Telco service provider website, the conceptual of e-service quality, and the dimensions of e-service quality. This study focuses on the impact of user characteristics on e-service quality and customer perceived value. This study also investigates the loyalty behavior determined by customer perceived value and perceived price. So this study contribute to a growing body of e-service quality research by examining whether high service quality ratings lead to positive perceived value and positive loyalty behavior a long with user characteristics, as well as high perceived price leads to loyalty behavior. The results indicated that difference of Internet characteristics determined e-SQ. Perceived value was also directly related to loyalty behavior. Finally, this study discussed the managerial and theoretical implications of these results.

Keyword: e-Service Quality, Internet Characteristics, Perceived value, Perceived price, Loyalty.

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Introduction

The ideally the internet companies is to improve and maintain all service quality attributes that satisfy the existing customers' needs and wants. However, the online companies have limited resources; priorities must be set among alternative service attributes in making investment decisions based on a company's business strategies. If online companies can understand the similarities and differences of key service quality dimensions perceived by Internet purchasers, different service offering strategies can be applied to retain existing Internet customers. With intense competition between websites at both local and global levels, each website needs to leverage its own competitive advantage.

This study considers, within the context of Thai Telco service provider website, the conceptual of e-service quality, and the dimensions of e-service quality. This study focuses on the impact of user characteristics on e-service quality and customer perceived value. This study also investigates the loyalty behavior determined by customer perceived value and perceived price. So this study contribute to a growing body of e-service quality research by examining whether high service quality ratings lead to positive perceived value and positive loyalty behavior a long with

user characteristics, as well as high perceived price leads to loyalty behavior.

Conceptual framework

A framework describing the relationship among perceived e-service quality, perceived value, perceived price and loyalty behavior will be used to structured the empirically test the strength of the proposed relationships (see Figure 1). According to study of Zeithaml, Parasuraman, and Malhotra (2001) identified the criteria customers use to assess electronic service quality (e-SQ). They proposed a model and 11 major dimensions of perceived e-service quality.

Literature Review

User Characteristics.

Gounarir, Spiros., Sergios Dimitriadis and Vlasis Stathakopoulos (2005) review variables that have been suggested as factors influencing consumers' attitude and behavior on the Internet.

Internet familiarity and degree of e-commerce use. Early research on the adoption of computers has shown that the extent of a user's experience with technology influences his/her attitude and behavior towards that technology and more specifically the perceived usefulness of the technology, and intention to use it again. Since the Internet is a comparatively new technology, not all consumers are equally familiar with it; and even when they are, most use it for information seeking rather than for purchasing on-line.

Previous experience with e-commerce. It is well established in the marketing and consumer behaviour literatures that the outcome of previous experience with a product, service or buying process influences attitude and future behaviour. Positive /negative experience of a buying process initiates a learning activity that will lead to adjustment of expectations and consequently impact on quality perceptions. In the context of on-line behaviour, suggested that if the affective reaction of an Internet shopper with a Web site is positive, it will influence his/her evaluation and behaviour towards others web sites s/he will be visiting.

Reasons for e-commerce use. There is an extensive literature on the motives that drive consumers to buy, and on how these motives determine their expectations, in addition to their buying and patronage behaviour. Thus, consumers seeking to purchase these products are also expected to assess the quality of the sites they visit in relevant aspects (e.g., user friendliness, aesthetics).

Excitement with e-commerce. Several authors have underlined the notion that consumers may seek hedonic experience during shopping that this experience may be enjoyed for its own shake and that shopping enjoyment is an important dimension of experiential value. Enjoyment and excitement have been found to influence attitude toward computer technology. Thus, while some consumers are utility-oriented, others may enjoy the use of the on-line shopping option.

Trust in the Company. Trust is a fundamental ingredient of the relationship between a seller and a buyer. The main components of trust include uncertainty as well as the expectation that the other party (the company) will behave with integrity and will fulfill its promises. In the context of the Internet, trust toward on-line companies is often mentioned as a key factor of e-commerce growth, of on-line success and competitiveness. Trust in an on-line transaction would be related to the buying and payment process, the reliability of the

company's web site, privacy and security issues, order fulfillment and after sales service and, of course, the brand name and reputation of the company.

Experience with the Company. The extent to which a customer has bought from the company in the past will reflect his/her familiarity with the company, its web site, its products and services. Frequent buyers will have more information and more experience for evaluating the company's offering, and probably different expectations than those of new customers.

Perceived E-Service Quality. Zeithaml, Parasuraman, and Malhotra (2000) developed the conceptual model for understanding and improving e-service quality which they explored from preliminary research. The model highlights the four e-service quality gaps: Fulfillment Gap, Information Gap, Communication Gap, and Design Gap. They identified the criteria customers use to assess electronic service quality (e-SQ). They proposed a model and 11 major dimensions of perceived e-service quality. For the Web site interface, the opportunity to customize is not automatic because the Web site must first glean customer information and then process this information to provide customization. The two differences described above are key factors in suggesting that service quality research may not be applicable to the e-business environment. With the advent of the Internet, quality is still of major importance but the question is whether the theories and concepts developed in service quality can be applied equally to this business medium, where the main difference is the lack of human interaction.

Perceived Customer Value. This paper utilizes, as a general underlying conceptual model, the Theory of Reasoned Action (TRA) and particularly the TRA as applied to information technology in the Technology Acceptance Model (TAM) (Davis, 1989). The theory of reasoned action states that individuals' behavior can be predicted from their intentions, which can be predicted from their attitudes about the behavior and subjective norms. Davis (1989) applied TRA to a class of behaviors that can be defined as "using computer technologies" (mostly in the work environment), and produced the Technology Acceptance Model (TAM). Davis argues that for the behavior of "using computer technologies", two particular factors are predominant in predicting behavior: perceived ease-of-use and perceived usefulness.

Perceived Price. Price is critical for the success in web-based retail (Chen, Dubinsky 2003). Two strategies to improve perceptions of value were presented; (i) reducing prices while maintaining product quality and (ii) improving product quality while maintaining price. In addition, the perceived value has been regarded as antecedent to a consumers' willingness to buy. For example, Sweeney et al. (1999) suggested that monetary value would have a positive relationship with the perceived likelihood of purchase.

Loyalty Behavior. Loyalty intentions can be viewed as indicators that signal whether customers will remain with or defect from a provider. For ease of exposition, this dependent construct is split broadly into favorable and unfavorable behavioral intentions. Specific indicators of unfavorable behavioral intentions suggested by the preceding discussion include different types of complaining (e.g., complaining to friends or external agencies) and contemplation of switching to competitors.

Hypotheses

The preceding conceptualization suggested that the impacts of user characteristics are different on e-service quality and customer perceived value (H1-H2), and direct relationship between perceived price and perceived value (H3). The study posits the direct relationship among e-service quality, perceived value and loyalty behavior (H4-5). The hypotheses are summarized in Table 1.

Research Design and Operationalization of variables

Data collection procedures. To assess this research model as shown in Figure 1, it employs a survey to collect data from mobile phone users of three major players such as AIS, DTAC and True Move both prepaid and postpaid system. Respondents who have some experience to use at least one time via online at URL www.ais.co.th; www.dtac.co.th; and www.truemove.co.th; including related web such as www.gsm1800.net; www.one-2-call.ais.co.th; www.mobilelife.co.th; www.smartsolutions.ais.co.th; www.mfa.ais.co.th; www.mpay.co.th; www.happy.co.th; www.trueworld.net; www.truecorp.co.th. The questionnaires gathered utilizing a convenience sample by personal interview and e-mail during the Mar-May 2007 period. A sample size of 450 is anticipated at statistically significant levels.

Operationalization of variables and instrumentation. The measurements uses in this study concept involved a combination of scales. The instrumentation of variables is summarized as following. *Internet user characteristics* adapts by, Spiros, Sergios Dimitriadis and Vlasis Stathakopoulos (2005). Seven dimensions of user characteristics assessed using a 7-point scale ranging from “extremely strongly agree” to “extremely strongly disagree”

Perceived e-service quality has adapted from an earlier study conducted service quality by Eleven dimensions of e-service quality will be developed and tested which should result in a fairly robust measure of service quality. Perceived service quality assessed using a 7-point scale ranging from “strongly exceed expectation” to “does not exceed expectation”.*Perceived price* has adapted from. Four dimensions consist of - (1) adequately explaining service charges, (2) acceptable fees, (3) competitive fees and (4) clearly show the service charges on statements. Perceived price assessed using a 7-point scale ranging from “extremely strongly agree” to “extremely strongly disagree” *Perceived value* has adapted by Davis (1989) who applied the Theory of Reasoned Action (TRA) to measure the using computer technologies, two particular factors are predominant in predicting behavior: perceived ease-of-use and perceived usefulness. Perceived value assessed using a 7-point scale ranging from “extremely strongly agree” to “extremely strongly disagree” *Loyalty behavior*. This variable will be measured using four demensions, 7-point scale borrowed from. Loyalty behavior assessed ranging from “extremely strongly agree” to “extremely strongly disagree”

Reliability and Validity. A measurement purification process was undertaken to achieve reliable and valid measures. Coefficient alpha was used as a measure of reliability of each scale (see Table 3). Also, factor analysis was conduced for each multi-item scale. The results of the reliability and validity tests of the measures were given. All variables were shown to have good reliability (range from 0.628

to 0.908) and validity (total variance explained range 58.949% to 67.584%)

Results of finding and recommendation

The profile of the respondents show that about 61.1 per cent of the respondents are female which may suggest that this segment who have some experience to use at least one time via online at URL www.ais.co.th ; www.dtac.co.th; and www.true.co.th. Number of respondent of 252, 144, and 23 were obtained for AIS, DTAC, and True Move respectively.

The result of hypotheses. The five research hypotheses were tested from the data gathered from mobile subscribers utilizing multiple regression analysis in H1-H2, and Person correlation in H3-H4. Table 3 showed the result of hypotheses. Hypothesis 1 showed that Internet user characteristics have significant impact on e-SQ, each dimension of Internet user characteristics significantly impact on e-SQ except two dimensions: Internet familiarity and Previous experiences with e-commerce. This finding was contrary to an earlier study by Gounarir, Spiros., Sergios Dimitriadis and Vlasis Stathakopoulos (2005) found that the difference of Internet characteristics related with e-SQ, in additional each dimension. Mobile users have less experience with e-commerce with others but they can access their mobile operator at several outlets which automate information and easy to understand, they are not necessary familiarity in Internet. However, mobile user call direct to call center to ask how to access or click from public computer everywhere. Therefore, to be effective in increasing consumers' perceptions of quality, both pure and hybrid e-retailers need to invest in building trust to current and potential customers. To this end, they need to pay particular attention to issues of security and after-sales service with regard to on-line transactions. Moreover, efforts should also focus on developing a strong and trustworthy corporate identity, using both electronic and conventional forms of communication. Furthermore, people's excitement with e-shopping has a direct influence on customers' perceptions regarding service quality in all but one dimension (i.e., friendliness) of e-SQ. Apparently, consumers who consider e-shopping as having entertainment–value, perceive such an experience as positive. Hence, to be an effective e-retailer, it is imperative to provide to "electronic" consumers the opportunity to enjoy themselves during their visits. This can be accomplished by focusing on the hedonic elements (e.g., design, stylish appearance) of electronic consumer behavior. Hypothesis 2 showed that Internet user characteristics have no significant impact on perceived price. The previous study by Degeratu, Rangaswamy, and Wu (2000) compared on-line versus off-line product-choice behavior for three grocery product categories. They found that price sensitivity is sometimes lower on-line than in conventional channels, possibly because of differences between Internet users and the general population. In addition, the perceived value has been regarded as antecedent to a consumers' willingness to buy. Mobile users themselves utilized the mobile phone as their alive, they willing to pay and keep communication with others. This research did not consider the impact of customer characteristics that might exert an influence in the current context. Internet user characteristics could play a moderating role in the relationship between e-SQ and perceived value and behavioral outcomes. Meanwhile, Hypothesis 3

showed that Perceived price was not positively related to perceived value. This result supported the previous study by Dodds, Monroe, and Grewal (1991); Chen, and Dubinsky (2003) indicated that price has a negative effect on perceived value and consumers' willingness to buy. Some consumers, however, do not want to take the time to visit a conventional (brick-and-mortar) store. They value the ease of ordering on the Internet and do not mind paying the additional shipping and handling charges. As a result, the Internet was evolving into a convenience channel. The Internet also was a convenience channel used by customers who like relatively stable prices. Hypothesis 4 showed that Perceived e-SQ was positively related to perceived value. The result of hypothesis testing supported the previous study by Woodruff (1997) indicated that customer value was a customer's perceived preference for and evaluation of these product attributes, attribute performance, and consequences arising from use that facilitate (or block) achieving the customer's goal and purposes in use situations. In addition to Schechter (1984) mentioned that the evaluating perceived customer value from the perspective of the consumption experience was also very important. Based on their different business strategies, mobile operators can devote valuable corporate resources to the important service quality attributes uncovered by this study. For instance, to improvement of the level of personalization and access being important factors. To retain online customers, a high priority should be given to service quality dimensions of reliability, promptness and responsiveness. Furthermore, they have to take measures to help potential online shopping customers overcome their foremost concerns: security and trust. Hypothesis 5 showed that Perceived value is positively related to loyalty behavior. Several academician mentioned that loyal customers are important, because they contribute to the profitability of the service provider indicated that perceived value was the consumer's overall assessment of the utility of a product based on perceptions of what were received and what were given. The results of this study encourage customer loyalty managers to include measures of customer satisfaction, trust, perceived value, attitudinal commitment, and purchase loyalty into present customer loyalty valuation techniques. The present study has attempted to show the reliability and validity of the measures and has also provided some useful measures of these constructs. As the concise loyalty-related measures with good reliability and validity are periodically administered to a representative set of consumers, Internet marketers can use these measures to enhance their understanding of customer loyalty and its determinants and to take necessary corrective actions to improve them.

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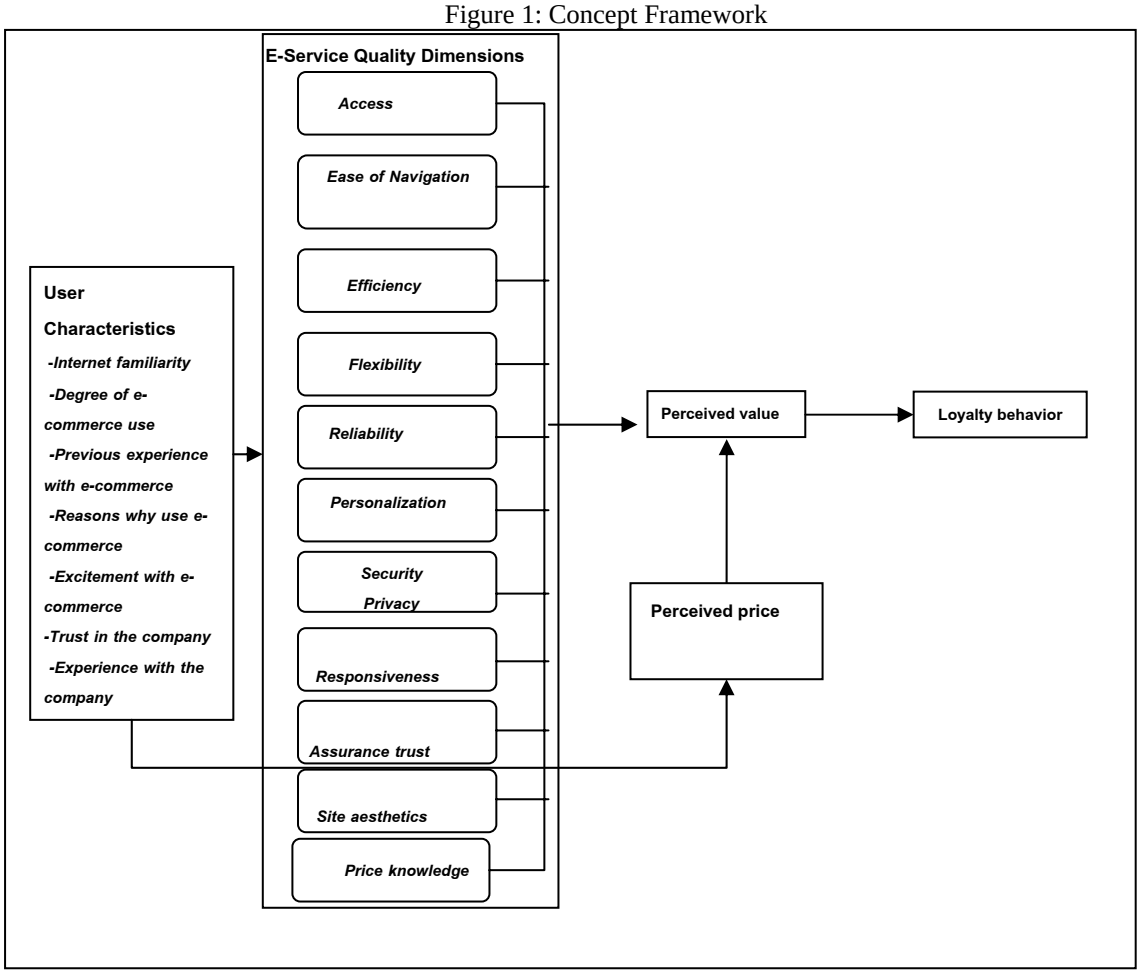
Figure 1: Concept Framework



Source: Gounarir, Spiros., Sergios Dimitriadis and Vlasis Stathakopoulos (2005); Zeithaml, Parasuraman, and Malhotra (2000); Bahia and Natali (2000) and Colgate and Hedge (2001); Davis (1989); Zeithaml, Berry and Parasuraman (1996)

Table 1: Hypotheses

Hypotheses
H1: Internet user characteristics have significant impact on perceived e-SQ.
H2: Internet user characteristics have significant impact on perceived price
H3: Perceived price is positively related to perceived value
H4: Perceived e-SQ is positively related to perceived value
H5: Perceived value is positively related to loyalty behavior

Table 2 Major Players in Mobile users (Million)

Mobile Operator	Prepaid	Postpaid	Total
AIS	14.5	1.9	16.4
DTAC	7.2	1.4	8.6
True Move	3.3	1.1	4.4

Source: Positioning (2006)

Table 3 Measurement of Reliability and EFA

Variables	Dimension	Cronbach Alpha	Standardization Alpha	Total Variance Explained (%)
Internet user characteristics	7	0.908	0.910	61.146
Perceived e-service quality	11	0.965	0.966	58.949
Perceived price	4	0.808	0.809	67.584
Perceived value	2	0.628	0.614	78.894
Loyalty behavior	4	0.874	0.881	67.239

Table 3 Hypotheses result

Hypotheses	Test value	Overall Model	Result
H1: Internet user characteristics have significant impact on perceived e-SQ.		F= 28.67 R-square = .339	Reject
➢ Internet familiarity	.554		Fail to reject
➢ Degree of e-commerce use	2.776*		Reject
➢ Previous experiences with e-commerce	1.180		Fail to reject
➢ Reasons for e-commerce use	2.973*		Reject
➢ Excitement with e-commerce	2.278*		Reject
➢ Trust in the company	2.669*		Reject
➢ Experience with that company	3.993*		Reject
H2: Internet user characteristics have significant impact on perceived price		F= 3.11 R-square = .053	Reject
➢ Internet familiarity	1.235		Fail to reject
➢ Degree of e-commerce use	1.116		Fail to reject
➢ Previous experiences with e-commerce	1.705		Fail to reject
➢ Reasons for e-commerce use	.596		Fail to reject
➢ Excitement with e-commerce	.933		Fail to reject
➢ Trust in the company	.537		Fail to reject
➢ Experience with that company	1.796		Fail to reject
H3: Perceived price is positively related to perceived value	0.57		Fail to reject
H4: Perceived e-SQ is positively related to perceived value	0.085		Reject
H5: Perceived value is positively related to loyalty behavior	0.413		Reject