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Ponirin Ponirin
Southern Cross University

Don R. Scott
Southern Cross University

Tania von der Heidt
Southern Cross University

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P. Ponirin
Southern Cross University
Australia
e-mail: ponirin.10@scu.edu.au

Don Scott
Southern Cross University
Australia
e-mail: don.scott@scu.edu.au
(corresponding author)

Tania von der Heidt
Southern Cross University
Australia
e-mail: tania.vonderheidt@scu.edu.au

Does E-store Service Quality Affect Customer Loyalty?

Abstract

This paper examines the relationship between performance assessed electronic store (e-store) service quality and e-store customer loyalty in an electronic retailing environment.

The research was carried out using a web-based survey method involving 3 e-stores and 324 e-customers. The survey data was then used to test models of e-store service quality and e-store customer loyalty and to assess the relationship between them.

Six determinants of performance based service quality for an e-store were tested for validity and reliability. These determinants were “ease of use”. “empathy”, “merchandise”, “security”, “product delivery”, and “purchase option”. Customer loyalty determinants that were identified were “word-of-mouth communication”, “purchase intention” and “complaining behaviour.” A strong positive association between e-store service quality and e-store customer loyalty was found.

The paper integrates previous literature on service quality and customer loyalty and develops valid and reliable measures of performance based e-store customer service quality and e-store customer loyalty.

Keywords : e-store, e-store service quality, e-store customer loyalty

Introduction

The surge in internet usage - 342% growth in users worldwide from December 2002 to December 2008 (Internet World Stats, 2009) has brought a new era of electronic retailing (e-tailing). E-tailing provides a new opportunity for retail businesses to conduct their business-to-business (B2B) interactions and business-to-consumer (B2C) interactions. E-tailing also poses challenges. One of these is that as more firms change their businesses to incorporate the Internet, the more they will have to compete on-line. As with offline trading, e-businesses need to develop and to keep loyal customers. However, gaining customer loyalty is not an easy activity for firms and it can require a great deal of the firm's resources for this to be achieved. To illustrate this, some companies invest very heavily in loyalty programs for example the Sheraton Hotel group spends between $30 million and $50 million annually for their customer loyalty program - the Sheraton frequent traveller program (Sivadas and Baker-Prewitt, 2000) and Australia's largest retailer, Coles Myer spends 25 cents in every dollar spent by Australian consumers for their loyalty program called FlyBuys™. This loyalty concept involves more than ten different stores under the Coles Myer umbrella and has 2.1 million members (Lindstrom, 2001).

While a loyalty program can seem to be expensive, benefits of loyal customers to firms are numerous. Researchers have found that there are linkages between customer loyalty and organizational profitability (Hallowell, 1996). Loyal customers are less price sensitive and lower costs are incurred by a firm as the expense of pursuing new customers is reduced. Furthermore the longer a firm can keep a customer, the greater the lifetime revenue from that customer and the costs of serving a loyal customer decline while the revenue from the same customer increases (Rust and Zahorik, 1993).

Reichheld and Sasser (1990) and Dawkins and Reichheld, (1990) have argued that firms have an economic impact on their profit or loss due to defecting customers and that a wide range of firms can increase profits by up to 100 percent by retaining just 5 percent more customers. Losing a customer does not only represent the lost value of the long-term sales potential of that customer, but it also represents the additional cost of replacing that customer and researchers have suggested that it can cost between one-fifth and one-tenth as much to retain customers rather than to obtain new ones. (Ahmed and Buttle, 2001; Rosenberg and Czepiel, 1984).

According to Zeithaml, Berry and Parasuraman (1996) customer loyalty depends on the level of customer service quality and they believe that there is a positive correlation between customer service quality and customer loyalty and vice versa. Also Fornell, et al. (1996) and Zeithaml, Berry and Parasuraman (1996) state that overall customer service quality has three antecedents: perceived quality, customer expectation and perceived value. All these determinants play a significant role in building customer service quality. High customer service quality will result in increased loyalty to the firm so that customers will be less prone to overtures from the competition (Fornell, 1992).

However, because of the specialized nature of the e-tailing market that has been identified, there is a need for research to identify any differences between customary types of loyalty and that which occurs in an electronic environment. This study will therefore explore the role of e-store service quality and e-store customer loyalty in electronic retailing and the relationship between them.

The relationship between service quality and loyalty

Service satisfaction and service quality have been found to be vey similar concepts and Bauer, Falk and Hammerschmidt (2000) and Swan (1983) have suggested that the constructs are not discernibly different. However, in assessing the relationships with service quality,

many researchers have chosen to examine service satisfaction and therefore in examining the information that has already been uncovered in regard to influences on customer loyalty, it is necessary to gain an overview of the service satisfaction/customer loyalty research that has already been carried out.

There does not seem to have been any final conclusion as to how satisfaction and loyalty are related to one another. However, Rust and Zahorik (1993) suggest that there is a positive relationship between customer satisfaction and customer loyalty. They also suggest that an improvement in customer satisfaction will improve aggregate customer retention rate, market share and profits. The same finding was also identified by Bloemer and de Ruyter (1998). These researchers found that store satisfaction had a positive relationship with store loyalty, in other words that an increase in store satisfaction led to an increase in store loyalty.

A positive relationship between satisfaction and loyalty was also found by Hallowell (1996), and this author considered that customer satisfaction might be responsible for as much as 37 per cent of the difference in customer loyalty levels. However, the research indicated that price satisfaction did not play a significant role in predicting customer loyalty.

Coyne (1989) has suggested that there are at least two critical thresholds affecting the link between satisfaction and loyalty. On the high threshold side, when satisfaction reached a certain level, loyalty increased dramatically; equally, when satisfaction dropped below its bottom threshold level, loyalty decreased equally dramatically.

Other researchers have however stated that satisfaction has no direct effect on loyalty (for example Andreassen 1994; Andreassen and Lindestad 1998; Sivadas and Baker-Prewitt 2000). Although it is found that satisfaction influences relative attitude, such as the likelihood of repurchasing and the likelihood of recommending, there is no significant direct impact on loyalty according to Sivadas and Baker-Prewitt (2000). Likewise, a study on customer satisfaction and customer loyalty done by Andreasen and Lindestad (1998) also identified that customer satisfaction had no significant impact on customer loyalty, even for customers with a high degree of service expertise.

Apart from being very similar to service quality in terms of its measuring items, satisfaction has also been found to play a mediating role in the link between service quality and service loyalty (Caruana, 2002). In this research it was found that service quality was the most important input into customer satisfaction and that it explained about 53 percent of its variance. The author also suggested that service quality was not the only factor that leads to customer satisfaction. Other elements, such as “transaction satisfaction”, “value”, and “corporate reputation or image” could also make a contribution.

Indeed, a mediating role for customer satisfaction was also found by Fornell, et al. (1996). Their findings were that customer satisfaction is affected by three antecedents namely perceived quality, customer expectations and perceived value. A positive relationship was found in regard to customer satisfaction and customer loyalty, while the relationship between customer satisfaction and customer complaints was negative.

The electronic retail environment

The advent of information technology has advanced the growth of Internet business around the world. This trend has not only increased the number of e-retailers worldwide, but has also increased the amount of research into the electronic environment (for example Jun and Good 2007; Lee and Lin, 2005; Aladwani and Palvia 2002; Yang and Jun 2002; Cho and Park 2001; Jun and Cai 2001; Kardaras and Papathanssiou 2000; Lynch,.Kent and Srinivasan 2001; van Riel, Liljander and Jurriëns 2001; Abels, Whiteand Hahn1997).

Cox and Dale (2001) argue that there are at least two differences between physical service environment and electronic service environment that are key factors in suggesting that service quality research may not be applicable to the e-business environment. Firstly, in an

electronic environment the interaction between a customer and a business mostly uses a computer as the interface. There are almost no human elements as such in a service delivered over the Internet, apart from customer service personnel reached by email or telephone. Secondly, companies are able to customise their service to individuals, particularly when they interact directly with the customer. For a Web based interface, the opportunity to customise the service is not automatic because the Web site must first glean customer information and must then process this information to provide customisation.

From these findings it would seem that while there could be a link between e-store service quality and e-store customer loyalty, should it exist, the drivers and strength of such a relationship in an e-store environment, need to be investigated.

Thus, the aim of this study was to explore consumer behaviour in an e-store environment specifically in a business to consumer (B2C) context and to identify the components of e-store service quality and e-store customer loyalty and the strength of any relationship between them.

The study therefore examined the following three questions:

1. What are the components that represent a valid and reliable measure of e-store service quality?
2. What are the components that represent a valid and reliable measure of e-store customer loyalty?
3. What is the relationship between e-store service quality and e-store customer loyalty?

Research Questions and Hypothesis

In examining the above issues, the following set of research questions and a research hypothesis were identified.

Research question 1: What are the components of a valid and reliable measure of service quality that is applicable to an e-store environment?

Research question 2: What are the components of a valid and reliable measure of e-store loyalty that is applicable to an e-store environment?

Research (null) hypothesis H_o: E-store service quality is not associated with e-store customer loyalty.

Methodology

A correct research design ensures that a study (1) will be relevant to the problem and (2) will use suitable procedures (Churchill 1995). Research designs can be classified into three categories namely (1) exploratory research, (2) descriptive research and (3) causal research (Zikmund 2000). A survey is a method of collecting primary data in which information (facts, opinions, motivations, awareness, and attitudes) is gathered by communicating with a representative sample of people (Malhotra et al. 2001; McDaniel and Gates 2002; Zikmund 2000). Surveys are mostly used because they provide a quick, inexpensive, and accurate means of assessing information about a population (Zikmund, 2000). For the purposes of this research it was therefore decided to use a survey in order to collect the opinions of a large number of e-store respondents. Because the research was specifically focussed on e-store use, an on-line survey was used to focus on e-store customers. The manner in which such customers were accustomed to use the internet meant that there was a good probability of achieving a high response rate.

E-store service quality measures

Some differences have emerged amongst online researchers as regards the applicable dimensions that would measure service quality in an online environment (Sahadev and Purani 2008; Bauer, Falk and Hammerschmidt 2006; Lee and Lin, 2005; Augustyn and Seakhoa-King 2004; Janda Trocchia and Gwinner 2002; Page and Lepkowska-White 2002; Ranganathan and Ganapathy 2002; Yang and Jun 2002; Cho and Park 2001; Jun and Cai 2001; Abels, White, and Hahn 1997). However, there have also been some similarities in dimensions, whether with similar or different wording. (Lee and Lin 2005; Janda, Trocchia and Gwinner 2002; Page and Lepkowska-White 2002; Ranganathan and Ganapathy 2002; Yang and Jun 2002; Cho and Park 2001; Jun and Cai 2001; Abels, White and Hahn 1997).

Janda, Trocchia and Gwinner (2002) stated that deciding what dimensions were the most important to consumers in assessing Internet retail service quality was an obvious question. In a somewhat similar vein Cox and Dale (2001) suggested that most of the dominant service quality research may not be applicable to e-business environments. They considered that the lack of personal interaction and the Web's inability to customise its services to be the two key differences between traditional and e-business environments that would lead to differences in service quality measures. Parasuraman and Grewal (2000) expressed similar reservations as to the appropriateness of existing service quality dimensions for a technology-mediated interaction in view of the perceived meaningful differences that existed between Internet retail shopping and more traditional channels.

Zeithaml, Parasuraman, and Malhotra, (2000) and Parasuraman, Zeithaml, and Malhotra.(2006). (2006) developed an e-service quality measure, which consisted of dimensions that varied from the dimensions of SERVQUAL. In addition, Janda, Trocchia, and Gwinner, (2002) suggested that researchers and practitioners should not assume that service quality dimensions developed for brick-and-mortar store environments will directly correspond to, or fully capture, the elements that should be considered in an Internet retail service quality.

Based on an examination of the views of these researchers it was decided that the proposed determinants that would be used to measure e-store service quality in this research would consist of six dimensions, namely "ease of use", "empathy", "product", "security", "product delivery", and "purchase option". These dimensions differed from the service quality dimensions that had been previously used for a brick-and-mortar retail environment, except for the second dimension namely empathy. However, it should be noted that these concepts also effectively spanned across constructs with different names such as empathy, efficiency, privacy, process reliability and responsiveness, that had been suggested by other researchers.

Different methods have also been proposed for measuring service quality. In the earliest work by Parasuraman, Berry, and Zeithaml (1988) a gap based disconfirmation approach to service quality was suggested. In this system, service quality was measured on the basis of a difference score determined from the difference between respondent perceptions of expectations and performance. However Peter, Churchill, and Brown (1993) and Cronin and Taylor (1992) identified that difference scores exhibit poor statistical properties and it was therefore decided that these would not be used in this research. Cronin and Taylor (1994) also showed that there was little difference to be gained from using both performance and expectation measure and that a satisfactory measurement of service quality could be obtained by using purely performance related scores. They therefore proposed a SERVPERF measure of quality. In this research it was decided to use only performance scores as a measure of e-store service quality in order to avoid any possible problems that might arise from the use of difference scores.

Because the e-store environment differs from the environments previously studied in service quality, the survey questions that had been used in such studies were deemed to be inappropriate for use in this research and it was necessary to develop a new set of questions that specifically addressed performance issues to be encountered in an e-store environment. In developing these questions, the six dimensions that had been identified from the literature as being appropriate for this study were used to direct the nature of the e-store service quality issues that needed to be canvassed.

E-store customer loyalty measures

Although at the end of an on-line transaction the consumer may obtain a tangible product, the benefits to the consumer are not in the purchased goods, which could have been obtained through alternative channels (Kolesar and Galbraith, 2000). Instead, the unique benefits to the consumer are in the performance of the on-line shopping transaction itself such as saved time, increased convenience and reduced risk of dissatisfaction (Wolfinbarger and Gilly, 2001).

Park and Kim (2003) found that a consumer's commitment to an e-store is highly related to information satisfaction and relational benefit. At the same time, they found that information satisfaction and relational benefit are significantly affected by product and service information quality, user interface quality, and security perception. This implies that information about an on-line store is an important factor that affects each customer's site loyalty and purchase behaviour.

Lynch, Kent and Srinivasan (2001) found that trust had a significant role in affecting customers' purchase behaviour. Using a survey of 12 countries, which were categorised into 3 regions, North America, Latin America and Western Europe, they discovered that trust had a significant positive impact on brand loyalty in all regions. These results highlighted the fact that a Website's trustworthiness is crucial in encouraging consumers to deal with an e-shop and to repurchase from that Website. Meanwhile, the impact of the other two site quality determinants namely "affects" and "site quality", to "loyalty" and "purchase intention", varied in accordance with the particular product and world region.

Another finding shows that customer loyalty in an electronic environment consists of three determinants namely "positive word-of-mouth comments", "likelihood of future purchase" and "likelihood of complaining about the on-line experience" (Janda, Trocchia and Gwinner (2002).

Based on the finding of customer loyalty in an electronic service environment and other findings related to customer loyalty in a brick-and-mortar environment, three determinants of customer loyalty were used in this research, namely "word-of-mouth communication", "future purchase intention" and "complaining behaviour."

Two of these determinants were also used in previous work done by Janda,Trocchia and Gwinner (2002) and Lynch, Kent,and Srinivasan (2001) namely "word-of-mouth communication" and "future purchase intention".

Final survey measures

The proposed dimensions of e-store service quality and e-store customer loyalty were tested in a pilot study. A pilot test of the proposed survey questionnaire was carried out by addressing the members of three mailing lists that were closely connected to management, information technology and an Internet café and asking respondents to complete the survey and to highlight any difficulties that they had encountered. 45 Responses were received, and this data was used to assess the questionnaire items for reliability, using Cronbach α. The pilot test resulted in the wording of some items being clarified in order to increase the ease of answering the survey. The final service quality related survey items are shown in Table I.

These items were incorporated into an electronic questionnaire where respondents were requested to indicate on a seven point scale numbered from 1= strongly dissatisfied to 7= strongly satisfied, the level of satisfaction that they attached to each item in regard to e-store service quality delivery.

Table I. E-store service quality measures.

Ease of use	P1	Ease of navigation between the pages of the e-store.
	P2	The e- store has a user-friendly appearance
	P3	The e-store website, has a great deal of visual attractiveness.
Empathy	P4	Availability of options to communicate with the e- store.
	P5	Availability of options to interact with the e- store.
	P6	Individualised attention, that was provided by the e-store.
Merchandise	P7	The availability of products that are offered by the e- store.
	P8	Completeness of the range of products that are offered by the e- store.
	P9	Newness of products that are provided by the e- store.
Security	P10	The e- store is trustworthy.
	P11	The e- store provides protection of customer privacy.
	P12	The ability of the e- store in keeping its commitments.
	P13	The e- store provides a fully Internet secure transaction method.
Product delivery	P14	Lower cost for product delivery.
	P15	The timeliness in delivering ordered products.
	P16	The e- store offers rapid delivery
Purchase Option	P17	Online order processing procedure of the e- store's transaction.
	P18	The e- store has a range of payment method options.
	P19	The e- store accepts a full range of credit cards.

The survey items relating to e-store customer loyalty are shown in Table II. Respondents were required to indicate their level of agreement or disagreement with the different statements on a seven point scale where 1= strong disagreement and 7 = strong agreement.

Table II E-store customer loyalty measures.

Word of mouth	Loy1	I will say positive things about this e-store.
	Loy2	I will recommend this e- store to someone who seeks my advice.
	Loy3	I will encourage friends and relatives to do business with this e-store.
Future Purchase Intention	Loy4	I consider this e- store my first choice for buying products and services.
	Loy5	I will do more business with this e- store in the next few years.
	Loy6	I will do less business with this e- store in the next few years.
Complaining behaviour	Loy7	I will complain to other customers, if I experience a problem with this e- store services.
	Loy8	I will complain to an external agency, if I experience a problem with this e- store services.
	Loy9	I will complain to the e- store employees, if I experience a problem with this e- store services

Target population

Much of the service quality research has been carried out in Sweden or in the USA and has related to its use in developed economies. The research in Western countries with developed democracies and high levels of technology need not reflect the occurrences in all economies. For instance, at 41.2% in December 2008 (Internet World Stats, 2009), Asian internet users represent the largest geographical segment of users worldwide. Yet, the internet penetration rate as a percentage of the population in Asia (17.4%) is less than half that of Europe (48.9%) and less than a quarter that of North America (60.4%) (Internet World Stats, 2009). It was therefore decided to carry out this research in a developing Asian economy.

Indonesia represents a developing Asian country that has the third highest population in the world, where there is no censorship and where there has been a rapid growth in internet use. E-tailing is a new business opportunity that started in Indonesia during the 1990's and grew rapidly thereafter. In 1995 the number of Indonesian firms that opened web sites on the Internet and used a co dot id (co.id) domain names was only 53 companies. This number grew to around 1,817 in year 2001 (the numbers exclude firms that use a .com domain name). Based on a survey done by i2bc.org (2001), about 88.4% of 1,500 Indonesian respondents reported that they could carry out transactions over the Internet and 16% of these respondents always did their transactions online. It was therefore decided to conduct the research in Indonesia.

The population for the study was defined as every individual who had carried out an electronic transaction via the Internet to purchase goods from an Indonesian e-retailer at least once in the period of the last 12 months in 2001/2002. The sample frame was made up of the customer lists of large e-retailers in Indonesia who agreed to participate in the study and to provide a complete list of their customers and their e-mail addresses in exchange for receiving a report with aggregate and hence anonymous results.

A systematic sampling technique was used because of its flexibility and the fact that it is more representative and reliable than simple random sampling (Malhotra, et al. 2001; Zikmund, 2000).

Because there is often a lower response rate for Web based surveys than for other survey methods (Brawner, et al. 2001; Hewson, et al. 2003; Malhotra, 1999; Ranchhod and Zhou, 2001; Zikmund, 2000) and because multiple responses may be received and need to be eliminated (Brawner, et al. 2001; Hewson, et al. 2003; Mann and Stewart, 2000; McDaniel and Gates, 2002; Ranchhod and Zhou, 2001), it was decided to use a sample size of 1,000 online customers drawn from the sampling frame with the intention of obtaining a final response rate of between 300 and 450 respondents. To achieve this, every 5th individual from each list was selected until the required sample size of 1,000 respondents was obtained. This number was expected to provide sufficient responses for analysis using the AMOS program which employs a method of analysis that ideally requires a number of cases of between 100-200 but not exceeding 500 (Hair, et al.1995; Tabachnick and Fidell, 1996).

The survey questionnaire was developed in English and then translated into Indonesian before being back-translated into English to check for any variations. The survey was then mounted on a Website in both English and Indonesian.

The selected potential respondents were emailed by the e-retailers to advise them of the study and to invite the targeted respondents to participate in the survey. The email included a link to the survey Web site, so that the customers could "click" the computer mouse to the link, which would lead them directly to the survey Web site. This procedure resulted in a final sample of 344 responses of which 15 were incomplete and 5 were multiple responses. These responses were therefore eliminated to produce a final sample of 324 responses or a response rate of 32.4 percent.

Findings

E-store service quality

The assessment of the convergent validity and reliability of the e-store service quality measurement models was carried out according to the structural approach to multivariate model building suggested by Hair, et al. (2006) and Tabachnick and Fidel (1996). The AMOS 4.01 program (Arbuckle, 1999) was used for this purpose. The fit indices chosen were the Tucker-Lewis Index (TLI), the Comparative Fit Index (CFI), the Root Mean Square Error of Approximation (RMSEA) and the Standardised Root Mean Square Residual (SRMR).

The measurement model analyses were carried out on the set of observed variables from the survey data.

Hair, et al (2006) suggest that the best measure of convergent validity is variance extracted (VE) and this was used to assess convergent validity. Construct reliability (CR) was assessed from the construct loadings and error variances (Hair, et al. 2006, p. 777). The outcome of these tests are shown in Table III.

Table III. Parameter estimates for service quality dimensions

Relationship	Standardized estimates	CFI	TLI	RMSEA	SRMR	Variance Extracted	Reliability
P1 ← Ease of use	0.82	1.00	1.00	0.00	0.00	0.66	0.85
P2 ← Ease of use	0.90						
P3 ← Ease of use	0.70						
P4 ← Empathy	0.92	1.00	1.00	0.00	0.01	0.69	0.87
P5 ← Empathy	0.89						
P6 ← Empathy	0.66						
P7 ← Merchandise	0.83	1.00	1.00	0.00	0.01	0.69	0.87
P8 ← Merchandise	0.90						
P9 ← Merchandise	0.74						
P10 ← Security	0.89	0.99	0.98	0.06	0.02	0.76	0.93
P11 ← Security	0.85						
P12 ← Security	0.87						
P13 ← Security	0.87						
P14 ← Product delivery	0.66	1.00	1.00	0.00	0.00	0.50	0.75
P15 ← Product delivery	0.76						
P16 ← Product delivery	0.69						
P17 ← Purchase option	0.91	1.00	1.00	0.04	0.00	0.90	0.97
P18 ← Purchase option	0.99						
P19 ← Purchase option	0.95						

Once it had been determined that all of the e-store service quality measurement models exhibited acceptable convergent validity and reliability a second order model of e-store service quality, was tested.

The goodness-of-fit measures of TLI and CFI were found to be 0.97 and 0.98 respectively; the SRMR was 0.06 and the RMSEA 0.05. These results indicated a good fit and the model is shown in Figure I.

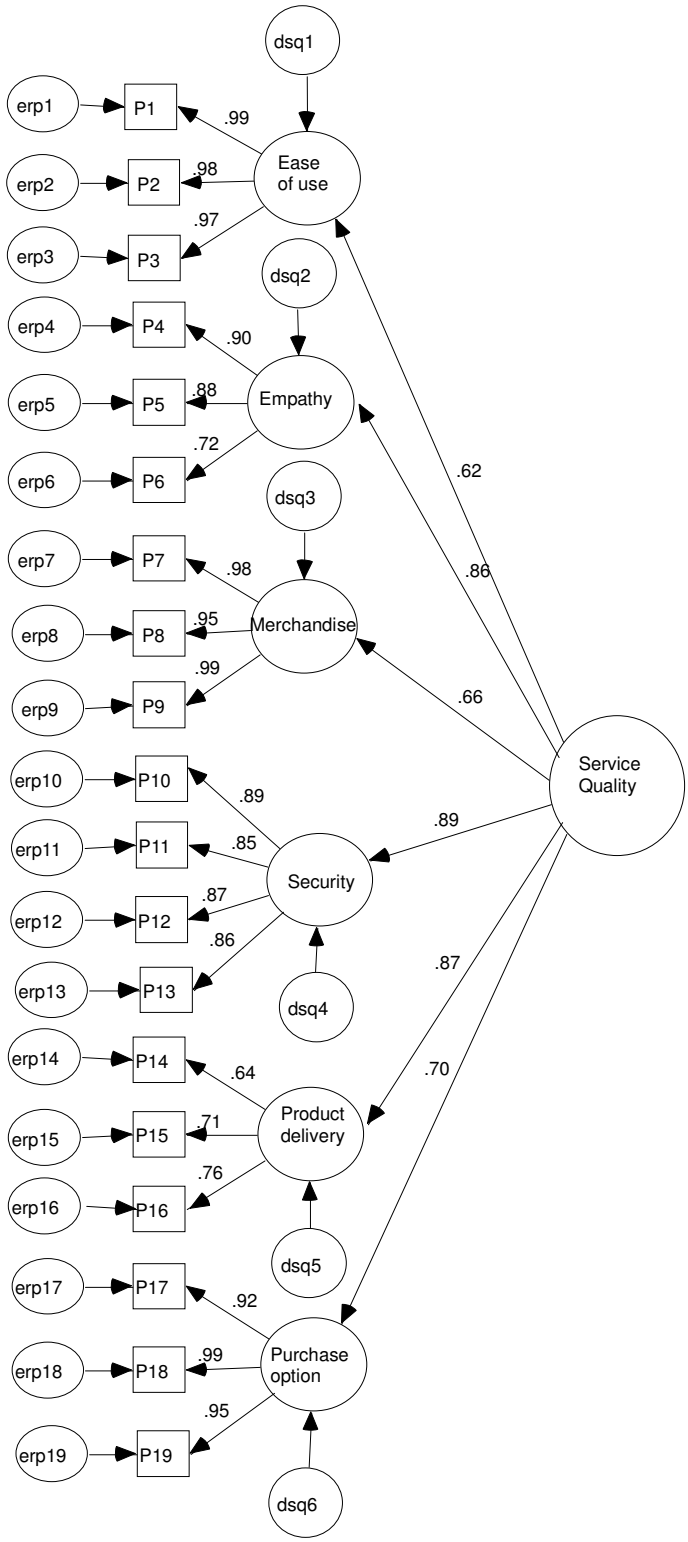

Figure 1. The second order service quality model

In summary, research question 1 that questioned what items made up a valid and reliable measure of e-store service quality was answered in terms of measured service quality being a function of ease of use, empathy, merchandise, security, product delivery, and purchase option.

E-store customer loyalty

The first-order analyses were carried out on the set of observed variables from the survey data. The parameter estimates indicated that all measurement model loadings lay between 0.500 and 0.941. According to Hair, et al.(1995), the acceptable minimum loading for an item to be accepted as a member of construct is 0.5. All items were therefore considered acceptable. The goodness-of-fit measures for all proposed dimensions also indicated a good fit with TLI = 0.99, CFI= 1.00, RMSEA = 0.06 and SRMR = 0.03.

However, the variance extracted level was marginal in the case of complaining behaviour and low in the case of future purchase intention. A VE value greater than 0.5 is suggested as a measure of convergent validity, since at this level the amount of explanation of variance by the model is greater than the level of error variance. This condition was not met in the case of future purchase intentions, however, since the model fitted very well and future purchase intention would seem to represent a very important measure of customer loyalty it was decided to retain this construct in the second order e-store customer loyalty measure.

Table IV. Parameter estimates for e-store customer loyalty

Relationship	Standardized estimates	Variance Extracted	Reliability
LOY1 ← Word of Mouth	0.79		
LOY2 ← Word of Mouth	0.77	0.54	0.78
LOY3 ← Word of Mouth	0.64		
LOY4 ← Future Purchase Intention	0.44		
LOY5 ← Future Purchase Intention	0.56	0.37	0.62
LOY6 ← Future Purchase Intention	0.73		
LOY7 ← Complaining Behaviour	0.55		
LOY8 ← Complaining Behaviour	0.94	0.48	0.72
LOY9 ← Complaining Behaviour	0.50		

The e-store customer loyalty dimensions were then tested in the form of a second order model of e-store customer loyalty the model fitted the data well with TLI=0.99, CFI = 0.99, RMSEA = 0.02 and SRMR = 0.05. These goodness-of-fit indices indicated that all the measurement models fitted satisfactorily and represented a second-order model of e-store customer loyalty as shown in Figure 2

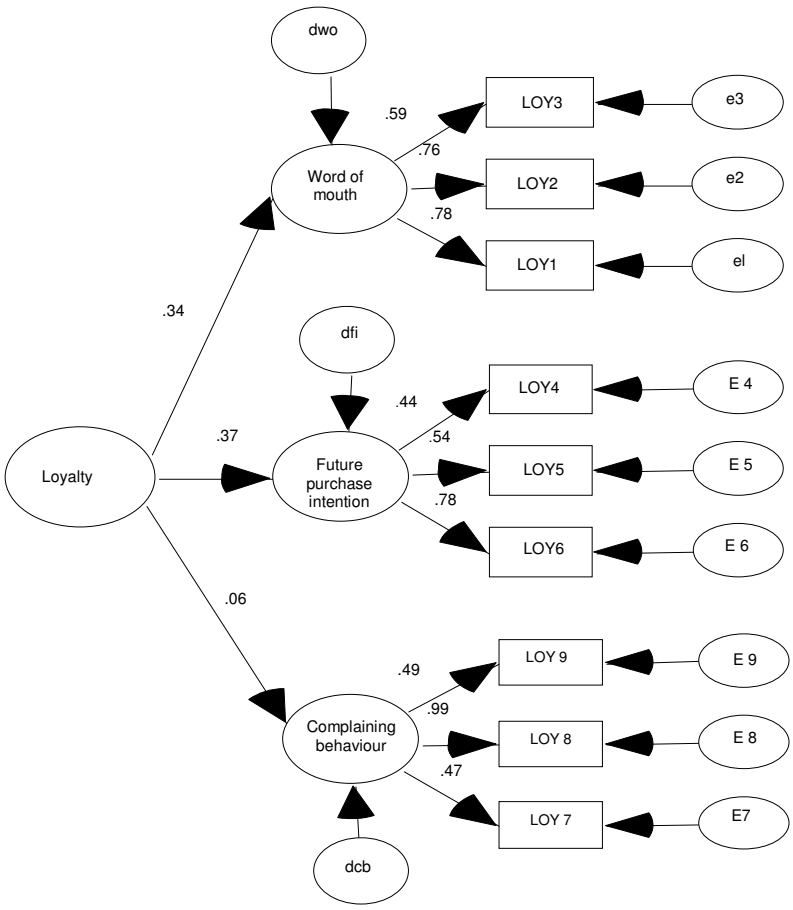

Figure 2 A second order model of customer loyalty

The results from this section of the research addressed research question 2 which queried what items made up a valid and reliable measure of customer loyalty in an e-store environment. The dimensions of such a measure of e-store customer loyalty were shown to be word-of-mouth communication (WOM), future purchase intention (FPI), and complaining behaviour (CB).

Testing the relationship between service quality and customer loyalty

The model of the relationship between e-store service quality and e-store customer loyalty is shown in Figure 3. This model indicated that e-store service quality has a positive influence on e-store customer loyalty. The TLI (0.97) and CFI (0.97) indicated that the model was a good fitting model and the SRMR (0.05) and RMSEA (0.04) values also indicated that the overall model was acceptable. The model indicated a significant positive standardised relationship of 0.71, between e-store service quality and e-store customer loyalty. The null hypothesis H_o, that overall e-store service quality is not associated with overall e-store customer loyalty, was therefore rejected.

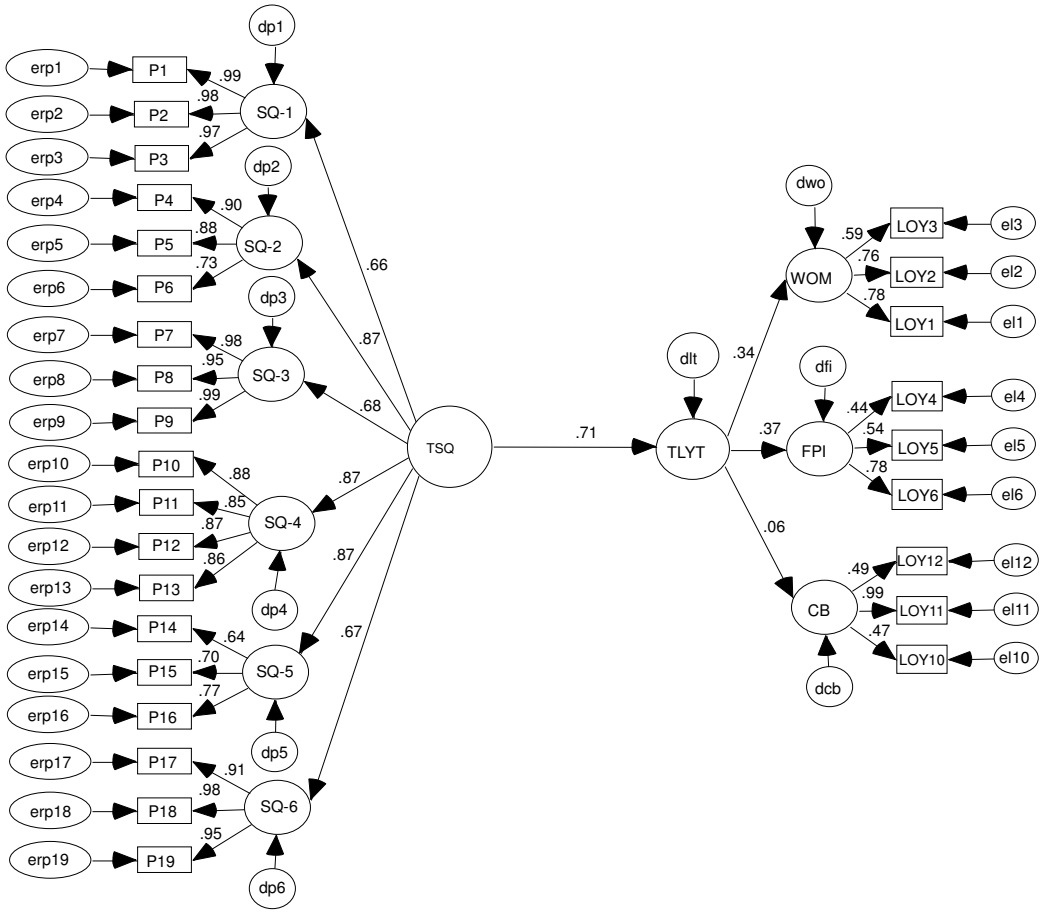

Figure 3. The model of the relationship between service quality and customer loyalty

Conclusions and Implications

The findings of the study provide various implications for service quality and customer loyalty in an on-line business environment particularly in an e-retailing context. The following are the conclusions and implications for e-store service quality and e-store customer loyalty theories:

1. The study determined the nature and number of dimensions of e-store service quality that represented valid and reliable measures of this construct in on-line retailing. This determination addressed research question 1. Six determinants of on-line service quality, namely, “ease of use”, “empathy”, “product”, “security”, “product delivery”, and “purchase option” were identified for use.
2. The study determined the nature and number of dimensions of e-store customer loyalty that represented valid and reliable measures of this construct in on-line retailing. This determination addressed research question 2. Three determinants of on-line customer loyalty were identified for use, namely, “word-of-mouth communication”, “future purchase intention” and “complaining behaviour”.
3. The study has supported the existence of a positive relationship between e-store service quality and e-store customer loyalty. Hypothesis Ho, was therefore rejected.

Loyal customers are of great importance to e-retail businesses. Firstly, they are customers who believe in the business with which they deal and, hence, who can be

disseminators of much word of mouth information, a very economical method of advertising. Secondly, generating new customers is expensive and the greater the number of customers that a retail business can retain the lesser the costs of customer creation.

In an electronic environment, switching of preferred suppliers by consumers is far easier than might be the case in a non-electronic environment since it can easily be accomplished by rapid internet searches for alternate suppliers and involves no possible confrontations between customer and retailer. The retention and development of loyal customers is therefore of great importance for e-stores. The 50% level of explanation of e-store customer loyalty by e-store service quality identified in this research, signals the high degree of importance that also needs to be accorded to e-store service quality by electronic retailers if they are to be successful in developing loyal customers.

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