

Customer Loyalty in Web-based Retailing

**A thesis submitted in fulfilment of the requirements for
the degree of
Doctor of Philosophy**

**Khanh Van La
B.A., M.Bus.**

**School of Management
RMIT University
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Declaration

I certify that, except where due acknowledgement has been made, the work is that of the author alone; the work has not been submitted previously, in whole or in part, to qualify for any other academic award; the content of the thesis is the result of work which has been carried out since the official commencement date of the approved research program; and, any editorial work, paid or unpaid, carried out by a third party is acknowledged.

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Abstract

E-commerce is increasingly recognised as an integrated, rather than independent, part of the retail industry. As online competition grows and online marketing activities intensify, the importance of customer loyalty in e-retailing has also taken central stage in marketing research.

This study explores the nature and characteristics of e-loyalty and its direct and indirect antecedents. Drawing from the literature on customer loyalty in the traditional, offline business context, it contends that e-loyalty is determined primarily by the quality of the relationship between an Internet retailer and its customers, and the customers' overall satisfaction with the retailer. Relationship quality, in turn, is influenced by the levels of perceived safety, trust and commitment that customers have in relation to their retailer, while service quality, Web site quality and value perception contribute to overall customer satisfaction in this context. Thus, relationship quality and overall satisfaction mediate the relationship between e-loyalty and its indirect predictors.

To test these relationships, over 500 customers of four Australian Internet retailers were surveyed online. The questionnaire contains 92 indicators that have been either employed in prior research, or newly developed based on existing theory. These indicators were first factor analysed to determine the underlying dimensions of the research constructs. The relationships between these constructs were subsequently tested using structural equation modelling (SEM).

In general, most hypothesised relationships were well supported, suggesting a consistency in the relationships between these constructs across online and offline settings. To this extent, the results indicate that existing offline marketing theories can provide a platform to create a body of knowledge pertinent to Web-based marketing.

The results of the analysis, however, also show that not all hypothesised relationships could be upheld. Also, the findings indicate that the dimensionality of some constructs differs, to varying degrees, from what is reported in prior studies. These suggest that online consumer perception and behaviour are likely to differ, in some way, from those in the offline context, signalling a need for more context-specific research into this domain.

On the whole, the study confirms the existence and benefits of customer loyalty in online retailing. In addition, it identifies four underlying dimensions of e-loyalty. Dimension 1 comprises behaviours commonly cited as the most prominent and beneficial indicators of customer loyalty (such as repurchase behaviour and word-of-mouth communication). Dimension 2 reflects the level of attachment that loyal customers feel towards their retailers. Dimension 3 indicates customer willingness to adjust their consumption patterns in favour of the retailer's range of offerings. The last dimension is related to customer willingness to move beyond a pure buyer-seller relationship, and to engage in partner-like behaviours (e.g., tolerating mistakes and providing feedback).

With regard to relationships between the research constructs, the SEM results confirm that service quality, web site quality, and value perception are major predictors of overall satisfaction, while trust and commitment, but not safety perception, are antecedents of relationship quality. E-loyalty is not found to be significantly affected by overall satisfaction, whereas relationship quality only has a slightly noticeable impact on this construct. The findings thus fail to support the notion that customer satisfaction and relationship quality are two major antecedents of e-loyalty. The results also do not support the speculation that satisfaction and relationship quality are the main mediators of the relationship between e-loyalty and its primary antecedents. On the contrary, e-loyalty is found to be influenced directly by customer commitment, value perception and service quality, and indirectly by Web site quality, safety perception and trust.

With online shopping growing in popularity, insights into the dimensionality of e-loyalty, as well as the factors that engender e-loyalty, can provide a useful framework on which appropriate marketing strategies could be developed to enhance the loyalty of online shoppers. To this extent, findings from this research are meaningful not only for marketing academics but, also, for Internet retailers.

Chapter 1 - The Research Context

1.1. Introduction

This chapter outlines the case for this research project. In particular, it discusses the significance of e-commerce as an emerging retail channel and, subsequently, identifies and analyses some of the major challenges currently facing Web-based retailers. The implications of such challenges for academic research are also considered. The focus and significance of this study are then presented. The chapter concludes with the specific objectives of this study, and a brief description of the approach taken to achieve these objectives.

1.2. An overview of Web-based retailing

1.2.1. The emergence of the Internet as a retail channel

Internet commerce has been hailed as “the new locus of value creation” (Rayport and Sviokla, 1995, p. 75). For consumers, the Web-based market presents an opportunity to obtain and collate a large amount of market information at minimum costs (Parasuraman and Zinkhan, 2002), effectively providing them with a new set of tools to make better decisions with less effort (Reibstein, 2002). Berry (1996) observes that consumers increasingly perceive a higher level of stress and lack of time in their daily lives, which results in a negative effect on their energy levels and an increasing reluctance to expend time and efforts to visit shopping malls. Consequently, there is a negative change in consumers’ shopping patterns, not only in terms of shopping frequency but, also, in the number of stores that are visited and the amount of time that is spent in each store (Berry, 1996). Online shopping has thus been widely promoted as a convenient way of shopping for the time- and energy-poor consumers (Szymanski and Hise, 2000), and has become one of the fastest growing Internet applications, with over half of Internet users reporting

shopping as one of their primary uses of the Internet (Donthu and Garcia, 1999; Forsythe and Shi, 2003).

Research by Ernst & Young (2001) indicates that selling online has become a business imperative and is no longer an option for firms in many areas of the retail sector. Many retailers focus their operation solely on the Internet, while others offer their Web sites to customers as an alternative to their physical stores (Rayport and Sviokla, 1994). The Boston Consulting Group (BCG, 2002) reports that multi-channel retailers account for approximately two thirds of online retailing and are continuing to gain more market share over pure Web-based retailers. In addition to online sales, an Internet presence also helps retailers achieve two other strategic objectives that aim to increase shareholders' value, namely communication and customer service (Griffith and Krampf, 1998). Yang *et al.* (2003) assert that the Internet can potentially enhance the quality of service and can contribute to the creation of higher standards in the retail sector. Feinberg and Kadam (2002) conclude that e-retailing will continue to grow and assume an important position in the retail industry.

1.2.2. The challenges in online retailing

While Web-based enterprises often enjoy numerous operational advantages over their offline counterparts (Colby and Parasuraman, 2003; Moncrief and Cravens, 1999; Richter, 1999; Wymbs, 2000), online retailing is not without challenges and the sector in aggregate is still yet to be profitable (BCG, 2002). Similar to store-based retailers, Internet retailers aim to attract shoppers and encourage them to buy through their Web sites (Griffith and Krampf, 1998). Hence, customer acceptance of electronic services is critical to realising the potential of the market-space (de Ruyter *et al.*, 2001). In this respect, the challenges come not only from e-retailers' weaknesses (such as inadequate customer service), but also from consumers themselves. For some consumers, online transactions may seem

complex and intimidating (Zeithaml *et al.*, 2002). In many cases, Web shopping is not favoured because people do not like computers or electronics in general (Åberg and Shahmehri, 2000). Also, Internet shopping presents consumers with new security and privacy issues, such as credit card fraud and the use of personal information for marketing purposes (Long and McMellon, 2004). The risks associated with online shopping can contribute to consumers' reluctance to buy online (Forsythe and Shi, 2003). As a consequence, many consumers are slow to reap the benefits of online shopping, while some may never become comfortable with the technology (LaMonica, 1999).

Another difficulty is to convert Internet users from “monitor shoppers” to actual buyers by encouraging them to modify their shopping habits in favour of Internet shopping (Kolesar and Galbraith, 2000). Indeed, a significant proportion of Internet users gather shopping information on the Internet, but have yet to make online purchases (Forsythe and Shi, 2003). One industry study (McIntosh, 2001) indicates that the underlying reasons for online shoppers to visit particular Web sites remain debatable, with retailers mentioning factors such as convenience, familiarity, trust and customer service as key drivers, while consumers listing attributes such as selection and prices as most important. Thus, a lack of understanding of consumer perceptions and expectations may hinder retailers' efforts to encourage online purchasing behaviour. All in all, electronic retailers are still unable to tap into the full potential of the Internet market, with less than 2% of site visitors converted into customers and more than half of online shopping carts abandoned by customers who are, for various reasons, uncomfortable with the buying process (Seiders *et al.*, 2000).

Customer retention is yet another significant issue in online retailing. A study by Reibstein (2002) shows that factors that attract consumers to a retail Web site are not necessarily the same as those important to retaining them. In this regard, Internet retailers also seem to have not invested sufficient resources in retaining their customers. Reichheld *et al.* (2000),

for example, found that less than 20% of Web-based companies systematically manage their customer retention. Likewise, although service quality remains a key determinant of repeat patronage and loyalty in a technology-enabled market, poor customer service is still a major issue on the Web (Zeithaml, 2002), responsible for the greatest majority of complaints against Internet retailers (Bellman, 2001). This shortfall is further compounded because consumers, according to Zeithaml *et al.* (2002), generally do not have well-formed expectations with online service quality as they do in traditional service encounters. This makes it more difficult for online service providers to design, market and deliver quality service. Moreover, the absence of direct personal interactions between customers and service providers in online shopping poses a new hurdle to the establishment and enhancement of long-term customer relationships and loyalty (Bhatty *et al.*, 2001; Walker and Francis, 2002). Hence, Kolesar and Galbraith (2000) conclude that a major challenge remains for e-retailers to understand and manage customer perceptions and behaviour, and to develop satisfactory customer relationships and loyalty.

In summary, the Web-based market presents retail firms with not only new opportunities but, also, potential pitfalls which may prove to be critical to the survival of Web-based enterprises. Indeed, the dot.com crash a few years ago caused devastating financial losses to many e-businesses and their stakeholders (Lovelock, 2001; Mahajan *et al.*, 2002), to the tune of billions of dollars in some markets (see, for example, Pandya and Dholakia, 2005). This is evidence of the need for more context-specific research into this domain.

1.3. The research opportunity

The rapid rise and fall of numerous e-businesses in recent years suggests a strong need for improved managerial knowledge specifically applicable to Web-based business management (Lovelock, 2001; Mahajan *et al.*, 2002). Industry research indicates that weaknesses in planning, control and implementation of strategies, as well as a lack of

understanding of consumer behaviour are the main reasons behind the failure of several dot.com ventures (Lovelock, 2001). Parasuraman and Zinkhan (2002) identify a number of significant knowledge gaps between Internet-based marketing theory and practice. Hence, from an academic point of view, opportunities exist to re-assess and augment existing marketing theories in order to contribute to the development of a useful body of knowledge pertinent to technology-enabled services marketing and management (Bitner *et al.*, 2000; Grönroos *et al.*, 2000; Meuter *et al.*, 2000; Parasuraman and Grewal, 2000; Walker and Francis, 2002; Zeithaml, 2002).

Although the emerging Web-based market differs from the traditional market in many aspects, Reichheld *et al.* (2000) contend that many fundamentals of business success still hold true in the new market-space. In particular, the importance of customer loyalty has been widely recognised not only in the conventional marketplace but, also, in the emerging Web-based market-space (Lynch *et al.*, 2001; Reichheld *et al.*, 2000; Srinivasan *et al.*, 2002).

Indeed, as low market entry costs encourage a large number of Web-only retailers entering the market-space, the costs of online customer acquisition increase rapidly (Reichheld *et al.*, 2000). While online customer acquisition is difficult and expensive, the retention of these customers is equally challenging because online shoppers can easily compare and evaluate competing offers, and because switching costs are low (Long and McMellon, 2004; Riel *et al.*, 2001). It has thus become imperative for Web-based companies to protect their customer base against increasing competition. Customer loyalty is considered to be an important determinant of customer retention (Gerpott *et al.*, 2001). Many authors (Reichheld *et al.*, 2000; Reichheld and Scheffer, 2000) conclude that the economics of e-commerce greatly increase the value of customer loyalty, making it a necessity for long-term business survival.

Yet little is presently known about how customer loyalty is developed in an Internet-based service context (Riel *et al.*, 2001). This lack of knowledge is potentially disadvantageous to businesses operating in the Internet market-space. For example, an industry study shows that, on average, Web-based businesses must retain their customers two to three years before they can recover the costs of acquisition, and that as many as 50% of customers in some cases defect within three years (Reichheld and Schefter, 2000).

This represents an important gap in current marketing theory and practice. This study aims to fill this void by exploring the attributes of e-loyalty, and how e-loyalty can be developed in online retailing. The expected research outcomes thus hold the potential to make an important contribution to the literature on Web-based marketing and, hence, to the development of the marketing discipline.

1.4. Research focus and objectives

This study examines the concept of e-loyalty. In particular, it aims to explore the nature of e-loyalty, and how this construct manifests itself within a Web-based retail setting. The study also seeks to identify the antecedents of e-loyalty, and assesses the relationships between these factors, and the ways in which they contribute to the development of e-loyalty. Its specific objectives are:

- (1) To inquire into the nature and dimensionality of e-loyalty in Web-based retailing.

This involves identifying the types of behaviours that loyal consumers are likely to exhibit in their relationship with an e-retailer, and investigating the driving forces behind such behaviours.

- (2) To identify the primary and secondary antecedents of e-loyalty and their manifestations in this context. This involves identifying factors that are most likely to have a significant direct or indirect influence on customer loyalty in online retailing, and exploring the main attributes of these factors.

- (3) To develop and test a conceptual model concerning the relationships between e-loyalty and its antecedents. This aims to empirically assess the relationships between e-loyalty and its antecedents, as well as the relationships between these antecedents.

1.5. Thesis organisation

This thesis consists of eight chapters which cover the two main stages of the study. Stage one, which comprises the next three chapters, aims to build the conceptual framework for the study. In this stage, a review of the relevant literature was undertaken to provide insights into the nature and characteristics of customer loyalty and the factors that can potentially contribute to the development of customer loyalty in online retailing. This served as a basis to develop a conceptual model concerning the relationships between e-loyalty and its antecedents. Since the literature review involved a substantial number of prior studies that were originally conducted in the offline context, the next stage of the study aims to test the proposed model in an online retail setting.

Thus, Stage Two involved an empirical investigation of the dimensionality of the research constructs. The findings were then used, in conjunction with the proposed conceptual model, to develop a structural model which was tested using a sample of 551 online shoppers. This process is presented in three chapters. Specifically, Chapter 5 describes the methodological framework developed for the study. Chapter 6 is concerned with the data analysis. In Chapter 7, results of the statistical analyses are interpreted.

Finally, Chapter 8 discusses the implications that the research findings have for marketing theory and practice. Limitations of the study are also considered in this chapter, as are directions for further research.

Chapter 2 - Customer Loyalty: Nature, Characteristics, and Antecedents

2.1. Introduction

This chapter reviews the literature on customer loyalty. The first section is concerned with the nature and characteristics of customer loyalty, particularly its importance in both online and offline markets. Also discussed in this section are the ways in which loyalty, as a research construct, has been conceptualised and operationalised in prior studies. The second part of the chapter centres on two major antecedents of loyalty, namely, customer satisfaction and relationship quality. The focus of this section is on how each of these constructs influences loyalty. On this basis, a number of hypotheses on the relationships between these constructs are formulated.

2.2. The Nature and Characteristics of Customer Loyalty

2.2.1. The significance of customer loyalty: from store-based to Web-based markets

Customer loyalty has been well established as a key to profitability and long-term sustainability (Keating *et al.*, 2003; Reichheld, 1996; Reichheld and Aspinall, 1993; Srinivasan *et al.*, 2002). Reichheld *et al.* (2000) maintain that, while it is important for a commercial enterprise to attract a large clientele, a sizeable customer-base by itself does not offer any assurance of long-term profitability unless the firm can earn loyalty from its customers. Consistent with this view, Kandampully (1998) argues that the ability of a service organization to create, maintain and expand a large and loyal customer base over a long-time horizon is critical to achieve and sustain a winning position in the marketplace. Similarly, Cox and Dale (2001) point out that, in any business sector, customer loyalty is a major competitive advantage.

One study in the retail industry (Bhatty *et al.*, 2001) indicates that most consumers can identify at least one business that they consider themselves loyal to, which implies that it

is possible for firms to earn customer loyalty and that many consumers are loyalty-prone. In an increasingly turbulent and competitive marketplace, the benefits of customer loyalty are paramount to business firms. The revenues generated from return customers increase, not only with repeat patronage but, also, from the increments in each subsequent purchase (Buttle, 1996). Therefore, argues Keaveney (1995), losing a regular customer is a loss from the higher margin part of an organisation's customer-base. In addition, Reichheld and Sasser (1990) indicate that it is five times more expensive to win a new customer than it is to retain an existing one. Retaining existing customers helps a firm reduce a large portion of marketing expenses and other associated costs that would otherwise have to be spent in order to attract and set up new customers (Bowen and Shoemaker, 1998; Egan, 2000; Keaveney, 1995; Tepeci, 1999).

Thus, business organisations can improve profitability by lowering their customer defection (Zeithaml *et al.*, 1996). Bowen and Shoemaker (1998) assert that even a minor increase in customer loyalty can lead to a major boost in profitability. For example, in a study on nine service corporations, Reichheld and Sasser (1990) found that a 5% increase in customer retention could result in a 25% to 85% increase in profits. In particular, research by British Airways shows that the company's return on investment in customer retention is 200% (Weiser, 1995).

The importance of customer loyalty has been widely recognised not only in traditional marketplaces but, also, in the Web-based market-space (Lynch *et al.*, 2001; Reichheld *et al.*, 2000; Srinivasan *et al.*, 2002). Reichheld and Schefter (2000) observe that the economics of e-commerce greatly increase the value of customer loyalty, making it a necessity for long-term business survival. Reibstein (2002) cites data from customers of BizRate.com which indicate a positive relationship between frequency of purchase and the number of items purchased per order. In particular, online apparel consumers have been

found to double their spending with their e-retailers two years into the relationship as compared to the outset of the relationship (Reichheld *et al.*, 2000). As the number of businesses entering the market-space grows quickly, it has become imperative for Web-based companies to protect their customer base against competitors. Customer loyalty is considered to be an important determinant of customer retention (Gerpott *et al.*, 2001). Hence, Reichheld *et al.* (2000) conclude that the survival of an online business, no matter how well-designed, is greatly dependent on the loyalty of its customers.

2.2.2. Conceptualising customer loyalty

A thorough examination of the literature on customer loyalty reveals several differences in the conceptualisation of this construct. For example, Shankar *et al.* (2003) view loyalty purely as an attitude, whereas Hofmeyr and Rice (2000, p. 107) consider loyalty to be “the behavioural propensity to buy a brand repeatedly”. On a different note, Heskett (2002) suggests that loyalty exists when a customer dedicates an increasing “share of wallet” to repurchase from a firm. Knox and Walker (2001), however, argue that repurchase behaviour is a behavioural construct that refers to the extent to which consumers repeatedly purchase from a firm, while loyalty is a more complex concept that involves both psychological and behavioural components. Consistent with this view, many attitude-based definitions of loyalty have been proposed that also include a behavioural element. For example, Srinivasan *et al.* (2002, p. 42) define e-loyalty as “a customer’s favorable attitude toward the e-retailer that results in repeat buying behaviour”.

Thus, consumers can generally be considered to be loyal when they hold favorable attitudes toward a firm or its products or services, and when they repeatedly purchase from the firm (Amine, 1998; Wong and Sohal, 2003). On the other hand, Jones and Sasser (1995, p. 94) consider customer loyalty to be “the feelings of attachment to or affection for a company’s people, products or services”. They further suggest that these feelings

manifest themselves through many forms of consumer behaviour that will eventually reflect on the bottom line of business organisations. Hence, customer loyalty is reflected through numerous behavioural outcomes, not only repurchase behaviour.

2.2.3. Operationalising customer loyalty

2.2.3.1. Purchasing behaviour vs. loyalty

While repurchase behaviour is generally considered to be the most important manifestation of customer loyalty (Bowen and Shoemaker, 1998; Caruana, 2002; Hennig-Thurau *et al.*, 2002; Storbacka *et al.*, 1994), it has also been argued that repurchase behaviour is not necessarily evidence of true loyalty because consumers may repeatedly buy from a firm for reasons that are independent of factors important to inducing loyalty (Amine, 1998; Bhatti *et al.*, 2001; Walker and Francis, 2002). Some researchers (Heskett, 2002; Pritchard *et al.*, 1999; Sivadas and Baker-Prewitt, 2000) suggest that proportion of business is a reliable indicator of loyal behaviour, arguing that consumers tend to dedicate a significant proportion of their business to firms that they are loyal to.

On the other hand, Jacoby and Chestnut (1978) maintain that true customer loyalty is “intentional loyalty” (p. 19). Accordingly, Amine (1998) notes that customers who are spuriously loyal to a firm frequently repurchase but do not hold a strong attitudinal commitment towards the firm. Such purchasing behaviours are not evidence of true loyalty. Indeed, empirical work by Baloglu (2002) in the casino industry shows that spuriously loyal customers may provide a firm with a higher proportion of their total number of visits, compared to truly loyal customers who tend to spend more time per visit than the spuriously loyal ones. Because repurchase patterns of spuriously loyal customers are driven by elements such as economic incentives, convenience, or a lack of alternatives, they are highly susceptible to competitors’ enticements (Baloglu, 2002). Such seemingly loyal customers are likely to switch when opportunities arise (Egan, 2000). Therefore,

relying solely on proportion of purchase to assess behavioural loyalty may prove to be misleading.

On the contrary, customers with latent loyalty exhibit a high level of attitudinal commitment but a low level of patronage, due to barriers such as a firm's prices, accessibility, or distribution strategies (Baloglu, 2002). Thus, the benefits that these customers bring to the firm may not be in terms of sale volume but, rather, in other forms of loyal behaviour such as word-of-mouth recommendations. For example, White and Schneider (2000) found that 17% of their respondents were willing to recommend their firms to others, but did not purchase from these firms automatically or exclusively. Therefore, measuring repurchase behaviour alone does not enable an accurate assessment of customer loyalty (Amine, 1998).

2.2.3.2. A multi-dimensional approach to assessing customer loyalty

In a conceptual model presented by Amine (1998), loyalty is represented by repurchase behaviour, while other loyalty-related behaviours (such as word-of-mouth communication) are considered to be consequences of loyalty. Correspondingly, Baldinger and Robinson (1996) propose a classification of loyal consumers according to their behaviour, using likelihood of repurchase as the primary criterion.

On the contrary, Zeithaml *et al.* (1996) found that these behaviours are indicators of the same construct. Hence, they conclude that loyalty may manifest itself in multiple ways. This view is shared by Bhatti *et al.* (2001), who suggest that loyal behaviour needs to be assessed based on a multi-dimensional scale, rather than solely on repurchase patterns. Likewise, Bowen and Shoemaker (1998) contend that customer loyalty is a measure of both customer likelihood of return and their willingness to perform partner-like activities such as recommending the firm to their friends.

Numerous studies (Amine, 1998; Baloglu, 2002; Bhatti *et al.*, 2001; Curasi and Kennedy, 2002; Lynch *et al.*, 2001; Oliver, 1999; Zeithaml *et al.*, 1996) show that true customer loyalty manifests itself in many forms including high levels of repeat patronage, consumption of a wider range of a firm's products/services, willingness to forgive occasional mistakes, making positive comments and word-of-mouth recommendations, giving preference to a firm over its competitors, and resistance to enticement attempts from competitors. As an example, one industry study (Bhatti *et al.*, 2001) indicates that retail shoppers who consider themselves loyal to a retailer are also likely to exhibit behaviours that are highly beneficial to the firm, such as word-of-mouth recommendation (74%), consumption of a wide range of the firm's products/services (63%), forgiving occasional mistakes (63%), giving priority to the firm over its competitors (88%), and unwillingness to shop at the firm's competitors (43%). Another study in the luxury hotel industry found that each loyal customer relays positive comments about their hotels to an average of twelve people (Bowen and Shoemaker, 1998). Moreover, since loyal customers usually perceive certain values in the firm that they cannot find elsewhere, they tend to be less price-sensitive and, as a consequence, less likely to switch on the basis of price (Tepeci, 1999).

Thus, customer loyalty manifests itself through a range of consumer behaviours that benefit business organisations in different ways. Some of these outcomes (such as repurchase behaviour and lowered price sensitivity) bring immediate financial benefits to the firms, while others may offer long-term, non-monetary advantages that will eventually affect the firms' bottom lines.

Indeed, one of the most important benefits that loyal customers bring to their firms is the willingness to help attract new customers. Hennig-Thurau *et al.* (2002) reason that, in order to achieve long-term economic success, business firms must focus not only on

retaining their existing customers but, also, on attracting new customers because some customers will inevitably defect and therefore need to be replaced. Since loyal customers often are active advocates of a firm, their word-of-mouth referrals prove to be one of the most effective forms of publicity (Heskett, 2002; Reichheld and Schefter, 2000).

In many cases, loyal customers have also been found to actively participate in a firm's advisory boards, thus providing the firm with a unique opportunity to gain customer information to help guide their business, at the same time reducing market research expenses (Bowen and Shoemaker, 1998). Kandampully (1998) asserts that true customer loyalty reflects not only in repeat patronage but, also, in a willingness to voice dissatisfaction and to allow a firm time to improve its shortcomings, as opposed to exiting. Customer complaints are also considered a source of useful information for firms to identify the causes of customer dissatisfaction (Nyer, 2000), and can also provide firms with insights into the root causes of operational failures (Tax and Brown, 1998). Therefore, customer complaints can help identify and rectify a firm's weaknesses and to improve its performance (Yang *et al.*, 2003).

Heskett (2002) concludes that the willingness of loyal customers to provide word-of-mouth recommendations to prospective customers, and to suggest ways of improving a firm's products or services can be even more beneficial to the firm than their purchasing behaviour. For example, a loyal customer who is willing to help promote or provide ideas for improving a firm's offerings can generate a lifetime value equivalent to that of as many as 100 regular customers who do not undertake such activities (Heskett, 2002). It is these loyal behaviors that contribute most to a firm's financial sustainability (Oliver, 1999).

In summary, while loyal customers frequently purchase from their firms, repurchase behaviour by itself does not provide sufficient evidence of customer loyalty. Therefore, in

order to achieve a reliable assessment of customer loyalty, it is necessary to also consider other aspects of consumer behaviour that may be less prominent but nonetheless are important indicators of true customer loyalty.

2.3. Antecedents of Customer Loyalty

Prior research has shown that customer loyalty is influenced by numerous factors such as service quality (Olsen, 2002), perceived value (Parasuraman and Grewal, 2000), trust (Reichheld and Schefter, 2000), and commitment (Baldinger and Rubinson, 1996; Pritchard *et al.*, 1999). However, it has also been found that the relationships between these factors and loyalty are likely to be mediated by other constructs including overall satisfaction (Caruana, 2002) and relationship quality (Bhatty *et al.*, 2001). For example, a study by Hennig-Thurau *et al.* (2002) found a strong direct relationship between satisfaction and loyalty, while research by Caruana (2002) indicates that service quality indirectly contributes to customer loyalty through satisfaction. Other studies (Bloemer and de Ruyter, 1999; Hennig-Thurau *et al.*, 2002) confirm that satisfaction and relationship quality are critical determinants of customer loyalty.

2.3.1. Customer Satisfaction

2.3.1.1. Satisfaction as an antecedent of loyalty

Research by Bolton *et al.* (2000) shows that repurchase intention is a good indicator of repurchase behaviour. In order for a buyer to consider repurchasing from a seller, the previous transactions should at least be satisfactory from the buyer's perspective. Although customer satisfaction does not guarantee repeat business, dissatisfied customers are most likely not to return. Customer satisfaction, hence, is often viewed as a criterion for repurchase behaviour (Dube *et al.*, 1994). Many organizations rely on customer satisfaction to form an exit barrier (Gundersen *et al.*, 1996) because, as high customer satisfaction leads to high customer expectations, consumers are less likely to switch to

companies that do not compete on the basis of customer satisfaction. Moreover, customers who are satisfied with their firms are more likely to continue doing business with those firms, rather than to accept the risks associated with switching to an unfamiliar company or a familiar company that has previously failed to meet their expectations (Selles, 1998). To this end, satisfaction can be considered as a necessary condition for repurchase behaviour which, in turn, is often regarded as one of the most important indicators of customer loyalty.

Customer satisfaction has also been found to be related to numerous consumer behaviours including word-of-mouth communications, feedback to the firm and repurchase intentions (Sivadas and Baker-Prewitt, 2000; Söderlund, 1998), all of which are often considered to be indicative of customer loyalty. Bloemer and de Ruyter (1999) conclude that overall satisfaction is one of the most critical drivers of customer loyalty. Indeed, findings from a study by Hennig-Thurau *et al.* (2002) confirm that satisfaction has a strong direct effect on customer loyalty.

Jones and Suh (2000) identify transaction-specific satisfaction as a buyer's level of satisfaction with a particular business event/transaction, while overall satisfaction is the degree of satisfaction that is based on a universal evaluation and perception of an organisation as a whole. Overall satisfaction has been defined as "customers' cognitive and affective evaluation based on the personal experience across all service episodes within the relationship" (Storbacka *et al.*, 1994, p. 25). Thus, overall satisfaction is accumulated from transactional evaluations and is updated after each specific transaction, resulting in a general perception of the company (Garbarino and Johnson, 1999; Jones and Suh, 2000). Research shows that transaction-specific satisfaction affects repurchase behaviors only when overall satisfaction is low and does not have any direct impact on such behaviors when overall satisfaction is high (Jones and Suh, 2000). Therefore, overall

satisfaction is more predictive of customer future intentions than transaction-specific satisfaction (Garbarino and Johnson, 1999; Jones and Suh, 2000).

The potential of overall satisfaction to favorably “lock in” customers has been empirically tested (Selles, 1998). For example, research by Keaveney (1995) indicates that consumers can abandon a service provider for numerous reasons including pricing, inconvenience, core service failures, service encounter failures, service recovery failures, competition, and ethical problems. Most of these are related to customer dissatisfaction with service quality or other aspects of a service offer. Hence, Keaveney (1995) concludes that service quality and overall satisfaction increase the likelihood of customer return.

Bhatty *et al.* (2001), on the other hand, find that the most frequently cited reasons for defection are relationship-related issues, such as poor staff attitude, lack of integrity and failing to make customers feel valued. Conversely, companies that perform well on these aspects are likely to enjoy strong customer relationships and loyalty. Hence, these authors conclude that overall satisfaction is a necessary, but not sufficient, condition for loyalty and that retailers also need to invest in those aspects of the business that can help enhance customer relationships.

2.3.1.2. Satisfaction as a necessary condition for loyalty

Indeed, while customer satisfaction is clearly an important determinant of loyalty, research repeatedly shows that satisfied customers are not necessarily loyal (Bowen and Shoemaker, 1998; Oliver, 1999; Shoemaker and Lewis, 1999). For example, approximately 13 per cent of British Airways’ totally satisfied customers do not intend to continue to use the airline in the future, their reasons ranging from change of jobs to the draw of another airline’s reward program (Weiser, 1995). Similarly, Reichheld and Aspinall (1993) found that 90% of customers who switched banks were satisfied with their primary banks. According to Bowen and Shoemaker (1998), this is because customer

satisfaction is a measure of how well customer expectations are met by a firm while loyalty is a function of both their likelihood of return and emotional attachment toward the firm. Indeed, Yen and Gwinner (2003) found inconclusive evidence of a statistically significant causal relationship between satisfaction and loyalty, although they did find a strong correlation between these two constructs. Similarly, Sivadas and Baker-Prewitt (2000) failed to identify a direct effect of satisfaction on loyalty.

Some authors (for example, Bowen and Shoemaker, 1998; Oliver, 1999) reason that, in many cases, the very nature of a firm's product or service category means that it is more feasible for the firm to achieve a high level of customer satisfaction, rather than loyalty. Thus, some industries, such as hotels and airlines, generally achieve high satisfaction ratings, but not necessarily high customer loyalty.

Further, the relationship between satisfaction and loyalty has been found to be non-linear, that is, loyalty will increase rapidly above a certain level of satisfaction but will remain relatively independent of satisfaction below that level (Bloemer and de Ruyter, 1999). Correspondingly, Söderlund (1998) postulates that the relationship between customer satisfaction and loyalty is contingent on the level of satisfaction. As an example, Jones and Sasser (1995) cite a study by Xerox Corporation which shows that repurchase behaviors are six times more likely to come from "totally satisfied" customers than from "just-satisfied" customers.

In summary, the relationship between satisfaction and loyalty is not straightforward, but likely to be affected by many other factors. Oliver (1999) suggests that customer satisfaction may not be a reliable predictor of loyalty because loyalty is also influenced by non-satisfaction attributes, such as personal bonding and the strength of the relationship between a firm and its customers.

2.3.2. Relationship Quality

2.3.2.1. The importance of long-term customer relationships

Kandampully (1998) argues that customer loyalty is time-specific and thus non-permanent. Therefore, business organizations need to strive not only to develop but, also, to maintain their customer loyalty continuously as the market evolves over time, or risk losing it to their competitors (Kandampully, 1998). Other authors (for example, Berry, 1995a; Grönroos, 2000; Gummesson, 1999; Peppers and Rogers, 2000) concur that a long-term perspective of the customer-base brings long-term advantages to the firms. With consumers becoming more diversified and demanding than ever before, companies are faced with an increasing need to maintain relationships with their customers on an individual basis (Long *et al.*, 1999; Morris *et al.*, 1999). Likewise, many customers are motivated to maintain long-term relationships with credible service providers in order to reduce costs and increase efficiency in their decision-making (Foster and Cadogan, 2000; Park and Kim, 2003).

Pressey and Mathews (2000) argue that customer-service provider relationships are influenced by the benefits that customers perceive to be a consequence of their responsiveness to a firm's relationship initiatives. For example, a study by Long *et al.* (1999) shows that individual consumers are more willing to reveal personal information when a firm would provide additional benefits, such as discounts or improved service in exchange for such information. Thus, Long *et al.* (1999) conclude that consumers are more willing to cooperate when they perceive a relationship as fair and mutually beneficial. Moreover, an equitable relationship is most likely to exist when both parties are willingly engaged in mutual cooperation, rather than when one party can dominate the other (Pressey and Mathews, 2000). As such, customers' recognition of the benefits of a long-term relationship, and their subsequent willingness to enter into such a relationship,

is a critical determinant of a business firm's efforts to build long-term customer relationships.

A strong customer-service provider relationship brings many types of benefits to both the customers (Gwinner *et al.*, 1998) and the firm (Hennig-Thurau *et al.*, 2002). Relational benefits are considered to be important contributors to relationship quality (Hennig-Thurau *et al.*, 2002), and have been shown to be positively related to many important factors such as customer satisfaction, repurchase behaviour and word-of-mouth communication in both offline and online contexts (Hennig-Thurau *et al.*, 2002; Yen and Gwinner, 2003). Findings from an empirical study by Yen and Gwinner (2003) confirm that relational benefits are important antecedents of customer satisfaction and loyalty.

Thus, developing and nurturing long-term customer relationships can offer long-term advantages to business organisations, which will eventually affect their profitability. Indeed, industry research shows that profits increase with the length of customer relationships in online, as well as offline, markets (Reichheld *et al.*, 2000). As service firms increasingly realise the importance of and focus their resources on managing customer relationships, relationship marketing has emerged and is regarded as a prominent marketing paradigm (Berry, 1995a). The primary objective of relationship marketing is to retain customers and to enhance the relationship with them (Storbacka *et al.*, 1994). The benefits of relationship marketing, according to Bowen and Shoemaker (1998), are customer loyalty and the subsequent loyalty-related consumer behaviours. Thus, relationship marketing can potentially contribute to the development of customer loyalty.

2.3.2.2. Relationship marketing vs. transactional marketing

Selnes (1998) argues that customers' decision to continue a business relationship with a firm (i.e., repurchase behavior) does not necessarily indicate a decision to enhance the scope of the relationship and the relationship between the customers and the firm may

remain purely transactional. A repurchase decision may be linked with a lower level of perceived risk because the customer is familiar with the firm and its products, while the decision to enhance a relationship is of a strategic nature and often requires efforts, sometimes even sacrifices, from both parties (Selnes, 1998).

Thus, while many organizations seek to develop close relationships with their customers, these relationships may vary from highly relational to purely transactional because not all customers are willing to maintain the same relationships with their service providers (Garbarino and Johnson, 1999; Grayson and Ambler, 1999; Long *et al.*, 1999). Transactional marketing, as the name implies, focuses on individual transactions by offering quality products rather than developing customer relationships through interaction and post-purchase communication. Therefore, transactional marketing is product-oriented and short-term in nature (Pressey and Mathews, 2000; Zineldin, 2000). Relationship marketing, on the other hand, emphasises long-term customer retention by offering superior value and after-sale service, and focuses on the maintenance of a high level of contact with customers in order to facilitate the organization's retentiveness (Zineldin, 2000), which leads to relational exchanges instead of ad hoc transactions (Pressey and Mathews, 2000).

According to Bowen and Shoemaker (1998), relationship marketing differs from the traditional transaction-based marketing primarily in that it aims to develop customers into partners, thus promoting their partner-like behaviours. These behaviours are typically considered to be important indicators of customer loyalty. Hence, Gummesson (1998) argues that the relationship marketing paradigm requires firms to accept customers as a partner and co-producer of value, rather than a passive recipient of the firms' products or services. He further notes that, "in relationship marketing, the customer is recognized first as an individual, second as a member of a community or affinity group, and only

thereafter as an anonymous member of a segment or a fraction of a percentage in a large anonymous mass.” (Gummesson, 1998, p. 243). Bitner (1995) concludes that the term “relationship”, as used in this marketing paradigm, indicates a relational bond built on trust and commitment, rather than one based on discrete transactions that are repeated over time.

2.3.2.3. Relationship quality as an antecedent of loyalty

Within a commercial context, it is appropriate to measure relationship quality, as perceived by the customer, as an indicator of its magnitude (Bove and Johnson, 2001). According to Hennig-Thurau *et al.* (2002), while relationship quality and relational benefits are conceptually different, they both focus on the fulfilment of customer needs as critical to a successful relationship. As such, customer perception of relationship quality can significantly influence the success of a firm’s relationship marketing and loyalty-building efforts (Wong and Sohal, 2002a).

Bhatty *et al.* (2001) argue that, by maintaining a strong professional relationship with customers, a firm can create a switching barrier by consistently meeting customer expectations and earning their trust over a long period of time, which cannot be quickly duplicated by competitors. A bonding customer-service provider relationship renders the firm’s competitors’ offerings less attractive to the customers (Kandampully, 1998). Moreover, a quality relationship is less likely to be damaged by occasional mishaps that are bound to occur from time to time (Wong and Sohal, 2002a). Hence, long-term customers are likely to be more tolerant and willing to give a firm a second chance when it faces problems or lags behind the competition (Bhatty *et al.*, 2001). In this regard, the quality and length of the relationship between a firm and its customers can be considered a sustainable competitive advantage that can be relied upon to improve customer retention. It can also be argued that a firm stands a better chance of converting long-term customers

into loyal customers by improving and capitalising on its understanding of and relationships with these customers. Storbacka *et al.* (1994) conclude that a quality relationship with customers enables a firm to enhance its long-term profitability.

Empirical research by Bhatti *et al.* (2001) confirms that relationship quality has a positive and significant influence on customer loyalty. Their study also indicates that, while true customer loyalty is influenced by numerous factors, most of the key variables of true loyalty are directly related to the quality of the relationship between a business and its customers. Consequently, these authors argue that relationship quality can be considered as a reliable predictor of customer loyalty. Another study (Yen and Gwinner, 2003) indicates that online shopper perceptions of the benefits that stem from a strong relationship with a retailer positively influence both their satisfaction with and loyalty to the firm.

Thus, it can be inferred that customer satisfaction is a potentially important antecedent of customer loyalty, while relationship quality can affect both satisfaction and loyalty. This is illustrated in Figure 2.1. Subsequently, the following hypotheses have been formulated:

H1a: Customer loyalty is positively influenced by relationship quality

H1b: Customer loyalty is positively influenced by customer satisfaction.

H2: Customer satisfaction is positively influenced by relationship quality.

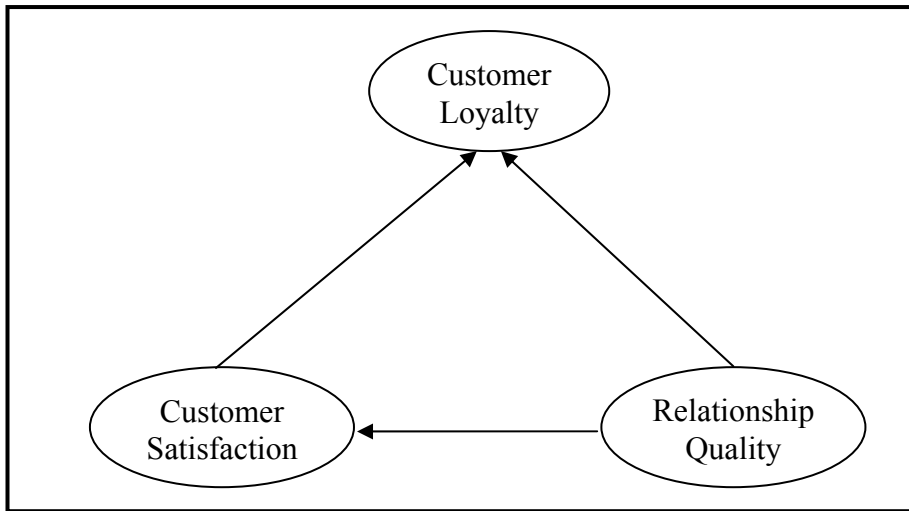


Figure 2.1. Hypothesised relationships between customer satisfaction, relationship quality, and loyalty

Chapter 3 - Antecedents of Customer Satisfaction

3.1. Introduction

This chapter focuses on the main factors that contribute to online shopper satisfaction. First, the chapter identifies the antecedents of customer satisfaction as reported in prior research. An extensive discussion on the nature and dimensions of these constructs then follows. The chapter concludes with a discussion on the relationships between these constructs, and on how they, individually and in combination, contribute to customer satisfaction in online retailing. On this basis, a number of research hypotheses are then formulated.

3.2. Antecedents of Customer Satisfaction

Although service quality is often considered to be the most important contributor to customer satisfaction in a service context, prior research has also indicated that customer satisfaction is influenced by many other factors in addition to service quality. For example, an empirical study by Caruana *et al.* (2000) confirms the existence of a direct link between service quality and satisfaction, and a partial moderating effect of perceived value on the relationship between satisfaction and service quality. Findings from this study also suggest that service quality by itself does not necessarily lead to overall satisfaction. Instead, overall satisfaction has been shown to be influenced by numerous factors including customer perception of value (Cronin *et al.*, 2000), service quality (Caruana, 2002) and, within an online environment, the technical quality of a Web site (Park and Kim, 2003). The following discussion focuses on how these three variables contribute to overall satisfaction within an online retailing context.

3.2.1. Value Perception

3.2.1.1. The significance of customer value perception

In a hyper-dynamic and competitive marketplace, increasingly demanding consumers expect their firms to deliver ever-increasing value at lower prices (Slater, 1997). Customer value has been hailed as “the next source for competitive advantage” (Woodruff, 1997), and the *raison d’être* for business organisations (Slater, 1997). Parasuraman (1997) contends that the notion of customer value is dynamic because the criteria that consumers use to judge value are likely to change both over time and over the various stages of a customer’s relationship with a company (e.g., first-time vs. long-term customers). Consistent with this view, Vandermerwe (2003) argues that customer value should be defined by the customers, rather than by the firm.

Swait and Sweeney (2000) assert that perceived value is an important consideration in consumers’ selection of a retailer as well as a product to purchase. Customer value perception is also regarded as a key determinant of overall satisfaction (Cronin *et al.*, 2000), as well as customer loyalty (Parasuraman and Grewal, 2000). Bhatta *et al.* (2001) conclude that firms need to continuously seek ways to improve their value propositions in order to ensure customer satisfaction, and to encourage repeat patronage.

3.2.1.2. Attributes of customer value perception

From a consumer perspective, value is the benefits, such as quality merchandise and caring service, that are received in relation to the total cost of acquisition, which includes monetary costs (e.g., price) and non-monetary costs (e.g., shopping time) (Berry, 1996; Cronin *et al.*, 2000). In a competitive retailing market, a retailer’s ability to offer a compelling value proposition - or a bundle of benefits that significantly outweighs the costs of shopping - is critical to business survival and success (Berry, 1996). Therefore, it

is important that retailers find ways to increase the benefits that their targeted customers consider important and to reduce the most critical shopping burdens (Berry, 1996).

Vandermerwe (2000) contends that the success of electronic retailers such as Amazon.com depends primarily on their ability to identify and fill a value gap for retail shoppers (eg, searching and buying books without hassles and from a single source). Internet shopping offers consumers numerous benefits over traditional shopping channels. Zeithaml *et al.* (2002) reason that consumers perceive a benefit in the ability to obtain information directly from a Web site, as opposed to having to go through salespeople in a physical store. Other authors (for example, Forsythe and Shi, 2003; Hackbarth and Kettinger, 2000; Kolesar and Galbraith, 2000; Wymbs, 2000) point out that, for online consumers, Internet shopping is a convenient and inexpensive way to explore a large range of products and services, to compare features and prices across different brands, to specify their own requirements, and to purchase online. Online consumers can thus satisfy their shopping needs without visiting any stores. Convenience is often considered a unique selling point of e-business (de Ruyter *et al.*, 2001). Indeed, many consumers are attracted to Internet shopping primarily because of the convenience factor (Reichheld *et al.*, 2000).

Another often cited value of online shopping is the availability of low prices. The technology-enabled market-space helps business firms to reduce operational costs in several ways (Colby and Parasuraman, 2003; Richter, 1999; Wymbs, 2000), thus increasing their ability to compete on prices. Moreover, online consumers, armed with abundant information on comparable offers from competing retailers, are more likely to be able to make the most economical and informed purchase decision (Reibstein, 2002). To the extent that the physical proximity between a retailer and consumers becomes less of an issue in Internet retailing, low price also plays a potentially important role in the purchase decision of online consumers who do not have to consider the costs of travel to and from

their retailers (Reibstein, 2002). As a consequence, price is generally considered to be a major competitive front in the Web-based market (Reibstein, 2002). For example, Brynjolfsson and Smith (1999) found that retail prices are 9-16% lower on the Internet than in traditional store-based outlets.

Nonetheless, while convenience and low prices are often regarded as key elements of the online retailing value proposition, they are not sufficient for a sustainable competitive advantage. Although online shopping may be a highly convenient way to search and buy products, it can be low in possession convenience in the sense that online customers typically have to wait for the delivery of their purchase (Seiders *et al.*, 2000). Indeed, a study by Forsythe and Shi (2003) suggest that some Internet users may be reluctant to buy online due to concerns about possible inconvenience caused by delays in order fulfilment.

Reibstein (2002) indicates that low prices may help attract, but not necessarily retain, online shoppers. In addition, Vandermerwe (2000) suggests that it is risky for e-businesses to focus solely on the cost advantage and compete on low prices because this might prove challenging in the long term. A competitive strategy based solely on low prices may attract only the most price-sensitive shoppers who are least likely to be loyal (Reibstein, 2002). Reichheld *et al.* (2000) conclude that it is more beneficial for e-retailers to compete on non-price attributes, such as superior customer service, that can help justify a price premium, because a focus on price competition will eventually lead to unattractive profit margins.

Researchers (for example, Berry, 1996; Cronin *et al.*, 2000) have long suggested that consumers perceive value through prices, as well as through other non-monetary attributes such as convenience and caring service. In some cases, competitive pricing can help offset mediocre quality and ensure that customer satisfaction is achieved, while a high level of service quality that is perceived to be expensive may result in a negative effect on overall

satisfaction (Caruana *et al.*, 2000). Correspondingly, Parasuraman and Grewal (2000) identify service quality, product quality and price as important contributors to customer value perception.

Research by Donthu and Garcia (1999) shows that online shoppers, in general, place less value on price than on other benefits, such as the ability to obtain products or services that satisfy their needs (or the availability of offers that are valuable to individual customers). For example, a study using BizRate.com's data indicates that price has the lowest correlation with consumer likelihood of return to a retail Web site, while factors such as customer support and on time delivery are identified as more important in encouraging repurchase behaviour (Reibstein, 2002). However, Berry (1996) cautions that, while it is often not necessary to offer low prices, retailers need to ensure that their prices are perceived as fair. He further suggests that pricing practices that are considered by customers to be unfair and confusing will deteriorate a retailer's credibility and would eventually result in a negative impact on profitability.

Some authors (for example, Donthu and Garcia, 1999; Van den Poel and Leunis, 1999) maintain that online shoppers are also likely to be attracted to a Web site because of the quality of its offers (e.g., availability of well-known brands). In addition, as Internet retailers compete heavily on discount prices and vast product assortments, factors such as psychological motivations and shopping experience, rather than utility-based value (e.g., prices and product quality), increasingly become criteria that online shoppers use to differentiate competing Internet retailers (Lynch *et al.*, 2001). To this end, retailers can build a competitive advantage by adhering to fundamental values such as showing respect for customers and their rights to be treated fairly and to have a pleasant, professional service experience (Berry, 1996). Reichheld *et al.* (2000) point out that many leading Internet enterprises retain their customers not through low prices, but through the delivery

of a superior customer experience that motivates the customers to return. Hence, it can be concluded that the experiential aspect of online shopping is also an important dimension of customer value perception.

Indeed, the importance of customer experience in retailing has long been recognised. Berry (1996) maintains that fun to shop has become the norm in today's retailing market where retailers do not only sell but, also, entertain shoppers in exchange for their patronage. As consumers become more selective in their shopping choices, retailers who can constantly offer fresh, stimulating and exciting shopping experiences are more likely to gain customer attention than undifferentiated, lacklustre outlets (Berry, 1996). Liu and Arnett (2000) contend that a successful shopping experience on the Web should provide shoppers with both utilitarian and hedonic outcomes. In order to encourage customers' repeat patronage, thus, an Internet retailer must be able to offer its customers an experience that is more than one of convenience; it has to be enjoyable (Barton, 1999; Liu and Arnett, 2000). A shopping experience considered by customers to be pleasant and rewarding is likely to induce repeat patronage and loyalty (Lynch *et al.*, 2001). According to Reichheld and Schefter (2000), successful Internet retailers win customer loyalty not through technological application but through the process of consistently delivering superior customer experience. It can thus be concluded that experience, as an important dimension of customer value perception, can potentially have a strong effect on both overall satisfaction and loyalty.

3.2.2. Service Quality

3.2.2.1. The significance of service quality

Every service organisation is built around a core service, the very reason for its existence (Berry and Parasuraman, 1991). In addition, service firms typically offer peripheral services to complement the core service. In many cases, the core service often is virtually

identical across different firms in the same category and, therefore, consumers' choice of service providers is largely influenced by the peripheral services made available to them (Kandampully and Duddy, 1999). Consumers thus evaluate service quality based on the degree to which the service package, comprised of core and peripheral elements, meet their expectations (Grönroos et al., 2000). Although service providers usually do not earn extra customer recognition and loyalty for meeting their expectations (Berry, 1995b), those failing to do so are more likely to lose out even in the absence of competitors. Companies with poor service quality may succeed, through advertising and other enticements, in luring customers into disappointing experiences and learning to avoid such businesses in future (Berry and Parasuraman, 1991). Superior service quality is also considered to be an important contributor to enduring superior market performance to the extent that it is more difficult for the competition to emulate, compared to other components of value such as product quality and price (Parasuraman and Grewal, 2000).

Findings from prior research (for example, Cronin *et al.*, 2000; Sureshchandar *et al.*, 2002) indicate a significant correlation existing between service quality and customer satisfaction. Sivadas and Baker-Prewitt (2000) confirm that service quality has a direct impact on customer satisfaction with retailers. In service research, customer satisfaction with service quality is believed to have a major effect on their behavioural intentions (Caruana, 2002; Cronin *et al.*, 2000; Zeithaml *et al.*, 1996). Bolton *et al.* (2000) observe that consumers typically make repurchase decisions based on their past satisfaction with a firm's products or services. In online retailing, customer service ratings have been shown to be highly correlated with online shoppers' likelihood of repurchase from a Web site (Reibstein, 2002). Zeithaml *et al.* (2002) assert that electronic service quality is a critical determinant of repurchase behaviour in the Web-based market. Moreover, Sivadas and Baker-Prewitt (2000) found that service quality influences likelihood of recommendation giving, which is another indicator of customer loyalty

Indeed, customer satisfaction with service quality has traditionally been considered an important antecedent of customer loyalty (Storbacka *et al.*, 1994). A study by Olsen (2002) suggests that service quality directly influences customer satisfaction and indirectly influences repurchase intentions through satisfaction. In other words, satisfaction plays a mediating role in the relationship between service quality and repurchase behaviour. Therefore, customer satisfaction, being a pre-requisite of repurchase intention, can be used to predict repurchase loyalty while service quality can be used to predict both satisfaction and, to a lesser extent, repurchase loyalty (Olsen, 2002). Caruana (2002) concludes that service quality indirectly contributes to customer loyalty through satisfaction.

As the focus of Web-based business competition shifts from online transactions to online customer service, service quality increasingly becomes a differentiator and is essential to business success (Zeithaml *et al.*, 2002). Reichheld and Schefter (2000) maintain that Internet-based service firms can only build customer loyalty by consistently delivering superior customer service, and not solely through the use of technology. Similarly, Walker and Francis (2002) emphasise the importance of electronic service quality and reliability to the establishment of long-term customer relationships and loyalty.

3.2.2.2. *Attributes of service quality*

Within a Web-based context, there has not been a universally accepted definition of service quality. It is, however, generally accepted that online service quality is multi-dimensional and includes both pre- and post- Web site service aspects (Zeithaml *et al.*, 2002). Thus, electronic service is not simply about access to goods and order fulfilment, but also comprises of other elements such as experience, sense of control, two-way interactive communication and personalization (Rust and Lemon, 2001). While some attributes of human-based service quality have been found to remain relevant in a technology-based service context, research studies have identified a number of other attributes that are specifically related to online service quality.

For example, it has been shown that, in the traditional marketplace, service quality is judged by the levels of responsiveness, empathy, assurance and reliability of a service provider (Berry, 1995b; Berry and Parasuraman, 1991). Within an online context, however, Internet users often have different motivations when using different Web sites for different purposes (e.g., searching for news and entertainment versus shopping) (Wolfenbarger and Gilly, 2003), thus are likely to use different sets of evaluative criteria.

In online retailing, the extent to which a retailer can satisfy its customers' shopping needs is an important aspect of service quality. In this regard, retailers that can offer consumers a one-stop shopping alternative are more likely to succeed (Seiders *et al.*, 2000). Thus, the breadth and depth of selection that a retailer offers to its customers can potentially form a powerful competitive force in the retailing market (Berry, 1996).

Moreover, as competition escalates and more comparable products and services are introduced into the marketplace, consumers increasingly need to compare different offers on relevant attributes instead of evaluating a product or service in isolation (Cronin *et al.*, 2000; Olsen, 2002). Therefore, an integral part of customer service within a retail context

is to help customers evaluate alternatives and make informed decisions, thus enhancing their satisfaction with the shopping experience and with the retailer itself.

By nature, e-retailers are service firms that provide online shoppers with information on products or services that are available and can be purchased through their Web sites. Also, online purchase is a process that involves an online exchange of information. Thus, it can be argued that a core element of Web-based retailing service is information-based. Hence, the quality and quantity of information featured on a retailing Web site can have a significant effect on the level of interest that the site can generate from online shoppers (Donthu and Garcia, 1999).

Many authors (Park and Kim, 2003; Szymanski and Hise, 2000) argue that the success of an online retailer is largely dependent on its ability to tailor information to meet the needs of individual customers (or to enable individual customers to obtain information that suit their needs), and to allow the customers to predict their satisfaction with subsequent purchases, thus being able to make informed purchase decisions. A Web site that acts purely as a self-service catalogue, offering promotions in pursuit of hard sales is unlikely to gain customer confidence and is likely to end up with fewer purchases, lower retention rates and sparse profits (Urban *et al.*, 2000).

Within a Web-based service context, superior information service quality, which is a major component of overall service quality, has been identified as a valuable benefit that online shoppers appreciate (Donthu and Garcia, 1999; Novak *et al.*, 2000; Zeithaml *et al.*, 2002). In this respect, information service quality is an important factor that can potentially affect shoppers' purchase behaviour and loyalty toward an online retailer (Park and Kim, 2003).

Another important component of service quality is responsiveness. Responsiveness has been identified as a critical element of service quality in the offline context (Berry, 1995b;

Berry and Parasuraman, 1991). In a technology-based service setting, consumer perception of an online service provider's responsiveness to their requests and complaints can influence their perception of the firm's reliability (Walker and Francis, 2002; Zeithaml *et al.*, 2002), which is another important dimension of service quality (Parasuraman *et al.*, 1991). In Web-based retailing, responsiveness has been found to be most frequently mentioned by online shoppers as an important contributor to their perception of service quality (Yang *et al.*, 2003).

According to Parasuraman *et al.* (1991), responsiveness is concerned with a service provider's willingness and readiness to provide prompt customer service and to respond to customer requests. Given that the Internet is a means of instant communication, customers who choose to communicate through the Internet are unwilling to tolerate delays and demand not only prompt but also proactive information service (Richter, 1999). Moreover, customers who choose to communicate through a particular medium are likely to expect the firm to respond in that same medium (Burrell, 2000). Since online consumers usually communicate with their retailers by email, a quick and responsive email service is often considered an important indicator of quality service (Yang *et al.*, 2003).

As mentioned earlier, service reliability is also a major dimension of service quality. Kandampully (1998) suggests that delivering quality service is tantamount to consistently meeting customer expectations, the basic tenet of reliability. Given that reliability is a measure of customer perception of the extent to which a firm can be counted on to deliver its promises, a high level of reliability is likely to mitigate customer perception of risk in dealing with the firm (Vijayasarathy and Jones, 2000).

Within a Web-based environment, the reliability of a retailer is reflected through both the technical reliability of its Web site, and the reliability of the firm's order fulfilment (Zeithaml *et al.*, 2002). Hence, Wolfinbarger and Gilly (2003) operationalise reliability as

both the accurate depiction of a product on the Web site and the delivery of the right product within the promised timeframe. However, in this study, since service quality and Web site quality are considered as two independent constructs (see section 3.2.4 for a detailed discussion), the reliability dimension of service quality (as opposed to the reliability dimension of Website quality) only refers to the non-Web attributes, among which order fulfilment is of particular importance. This is consistent with many previous studies (Seiders *et al.*, 2000; Vijayasathya and Jones, 2000; Zeithaml *et al.*, 2002) which indicate that poor order fulfilment (ranging from failure to deliver goods on time to not delivering at all) not only affects customer perception of online retailers' reliability and service quality but, also, offsets their perception of convenience – the primary selling point of Internet shopping.

Lastly, offline customer support is also a potentially important contributor to customer perception of service quality, although such support may not be required by all online shoppers. As online purchase behaviour tends to be goal-oriented, consumer evaluations of electronic service quality is likely to be more cognitive than emotional (Zeithaml *et al.*, 2002). Consequently, the interpersonal elements of service quality (such as courtesy, reassurance and sympathy) become less important in an online environment, with the exception of service recovery or other instances where special customer assistance is needed (Walker *et al.*, 2002; Zeithaml *et al.*, 2002). For example, Meuter *et al.* (2000) found that 83% of self-service technology users complain about service failures to their firms either in person or by telephone. Hence, while the availability of human customer support service may not have a significant effect on online customer satisfaction, it is regarded as a value-adding benefit that can positively influence customer value perception as well as risk perception (Walker and Francis, 2002). In many cases, consumers may require customer service before committing to an online purchase (Wolfenbarger and

Gilly, 2003). Therefore, online shoppers' perception of access to human customer support is likely to have an important role in their perception of overall service quality.

3.2.3. Web Site Quality

3.2.3.1. The significance of Web site quality

Services are produced and consumed simultaneously. Therefore, service consumption is process consumption (Grönroos, 1998). Service quality is, thus, inseparable from process quality. Service customers participate in the service production process and thereby influence service outcome quality (Grönroos, 1998). As service providers introduce a wide range of self-service options into today's market and as consumers become increasingly active in the service delivery process, consumers become more interested in the interactive component of the service experience (Solomon, 2004). Hence, customer satisfaction with the Internet shopping experience is closely associated with the perceived quality of the process of using the Web, as much as it is determined by the outcome quality (Grönroos et al., 2000).

Since Web-based retailers communicate with and deliver service to customers primarily through their Web sites, a retailer's Web site is the main facilitator of its service delivery. In other words, online shoppers interact with their company through a technological interface in lieu of the traditional human server (Wolfenbarger and Gilly, 2003). Therefore, online shopping necessitates a certain level of computer literacy that is not required in the traditional context (Long and McMellon, 2004). In purchasing over the Internet, consumers must actively participate in the service delivery process (i.e., by searching, selecting, and ordering online). Because of this self-service requirement, the tasks prescribed to the shoppers should be compatible with their knowledge, capabilities and self-image (Kolesar and Galbraith, 2000; Meuter et al., 2000). A Web site perceived by

potential customers as effective, convenient and enjoyable will encourage the customers to opt for the self-service alternative (Dabholkar, 1996).

A study by Meuter *et al.* (2000) suggests that, within a technology-based self service context, technology-related failures (i.e., when the technology does not work as intended) constitute the largest group of causes of customer dissatisfaction. These researchers also found that self-service consumers tend to take at least some credit for satisfactory self-service experiences, but are likely to blame the technology or the service provider for dissatisfying service encounters, rather than linking their involvement to the failures. In online retailing, Web site quality is considered to be a major reason behind the failure of many retailers (Donthu, 2001). A classic example of how technical failures can affect the success of a Web-based business is the case of fashion retailer Boo.com. The rapid demise of this Web-based venture, despite a massive start-up marketing budget, was largely attributed to the technical performance of its Web site (with less than 25% of attempts to access the site being successful) (Reichheld *et al.*, 2000).

Wolfenbarger and Gilly (2003) maintain that Web design is a new dimension in retailing that can influence consumers' perceptions of their shopping experience. Other researchers (Novak *et al.*, 2000; Park and Kim, 2003; Vijayasarathy and Jones, 2000) concur that technical elements, such as search functions, speed and ease of use, can have a significant impact on consumers' experience with an Internet retailer. Findings from many studies (for example, Girard *et al.*, 2002; Szymanski and Hise, 2000) confirm that the design and functioning ability of a retailing Web site has a direct effect on the site's appeal and can affect shoppers' propensity to use the site, as well as their overall satisfaction with the online shopping experience.

Rosen and Purinton (2002) propose that the effectiveness of a Web site can be judged on both users' overall impression of the site and their likelihood of revisit. A quality Web site

can attract more visitors and encourage them to spend more time on the site, thus increasing the likelihood of a purchase decision (Donthu, 2001). Customers who are satisfied with their experience on a retailing Web site are also more likely to return to buy more (Reibstein, 2002). Indeed, empirical research by Donthu (2001) confirms that Web site quality has a significant effect on purchasing behaviour.

Long and McMellon (2004) argue that a retail Web site's qualities, such as ease of use and the presentation of products, constitute the equivalent of the physical evidence aspect of service quality in the offline context. Moreover, due to the goal-oriented nature of online purchase behaviour, efficiency is an important dimension of perceived service quality (Zeithaml *et al.*, 2002). Therefore, Web site quality can influence online consumer perception of service quality (Zeithaml *et al.*, 2002). By improving the functionality of their Web sites, online retailers can increase the utility provided to their customers, thus enhancing customer perceptions of service quality and, consequently, their value perceptions (Lynch *et al.*, 2001). It can thus be concluded that the technical quality of a retailer's Web site can influence customer satisfaction, both directly and through improved perception of service quality and value.

3.2.3.2. Attributes of Web site quality

Within an e-commerce context, the performance of a Web site is an important indicator of the site's quality. Performance has been conceptualised as "the extent to which the technology operates accurately and dependably" (Yen and Gwinner, 2003, p. 487). Online consumers who consistently experience reliable and accurate technological performance are likely to develop a sense of confidence in the technology's future performance, as well as their value perception and, consequently, satisfaction and loyalty (Yen and Gwinner, 2003).

Also, the speed and ease of use of a Web site are considered to be an important contributor to consumer perception of a retail Web site. For example, ease of navigation is important to provide online shoppers with an efficient and enjoyable shopping experience (Yang *et al.*, 2003), while loading speed and response time have been found to positively influence customer satisfaction with a retail Web site (Kim and Stoel, 2004). Szymanski and Hise (2000) maintain that the speed and ease with which customers can navigate through a retailing Web site are likely to influence their perception of shopping time and efforts. Therefore, speed and ease of use can be considered as an important aspect of Web site quality that can contribute to customer satisfaction both directly and indirectly through improved value perception.

Additionally, the search functions that are designed into a retail Web site represent another important attribute of Web site quality. Monczka and Morgan (2000) observe that today's consumers have more choices and are capable of searching for the best alternatives on their own, which leads to an increasing market sophistication as consumers become more knowledgeable and demanding. Yang *et al.* (2003) point out that retail Web sites are essentially information systems with online shoppers being the systems' end users who seek information on products and/or services through the sites. An effective Web site, therefore, needs to provide its customers with in-depth information about goods or services and encourage them to make purchase (Grönroos *et al.*, 2000). The capability of a retail Web site to provide shoppers with information suitable for their shopping purposes has been shown to have the strongest positive impact on their satisfaction, as compared to several other aspects of Web site quality (Kim and Stoel, 2004).

In many cases, however, the Internet's capability to handle large quantities of information encourages marketers to overload their Web site with information, thus presenting their customers with the challenging task of sorting through all the information available

(Rosen and Purinton, 2002). As such, the way information is organised on a retailing Web site, together with the associated mechanisms that enable shoppers to obtain relevant information, is considered to be an important factor influencing customer perception of Web-based service quality (Zeithaml *et al.*, 2002). Thus, it is important that an online retailer's Web site is designed in such a way that customers can easily search for the information necessary to predict their likely satisfaction with subsequent purchases (Seiders *et al.*, 2000). To this end, the quality of a retail Web site's search functions can be regarded as an important dimension of Web site quality (Lynch *et al.*, 2001).

The appearance of a retail Web site is yet another major component of its quality. Rosen and Purinton (2002) argue that, to the extent that using computers is a cognitive process that involves personal perceptions and preferences, the design of a Web site is comparable to the design of a physical landscape. They note that Internet users interact with a Web site not only through their perception but, also, by entering into and "experiencing" the Web landscape. Based on the notion that a Web site can be viewed as a cognitive landscape, Rosen and Purinton (2002) develop the Website Preference Scale (WSPS) as a tool to assess Web design. Their empirical validation of this scale indicates that the design of a Web site can be assessed on three main dimensions: coherence, complexity, and legibility.

Yang *et al.* (2003) maintain that the aesthetic elements of a Web site can help convey a positive image to its users and make their experience more enjoyable. In particular, the visual appeal of a Web site (e.g., layout and graphic styles) has been identified as an important criterion that online shoppers use to evaluate the site's quality (Zeithaml *et al.*, 2002), and can thus contribute to their overall satisfaction with the shopping experience (Szymanski and Hise, 2000). Indeed, a survey by Kim and Stoel (2004) on online apparel shoppers confirms that the appearance of a Web site accounts for the greatest proportion of variance in consumer perceptions of the quality of the site.

The appearance of a Web site can also influence consumer perceptions of other aspects of an online offer. For example, an empirical study by Szymanski and Hise (2000) indicates that superior merchandising and product information have a rather non-significant effect on online shoppers' overall satisfaction. This unexpected finding can be explained through Berry's (1996) notion that the power of a dominant merchandise assortment can only be maximised by a retailer's ability to stimulate and delight shoppers with sensory appeal, interactive technology, and unique services. In other words, it is not solely a matter of size or format, but is more of a matter of attitudinal vigour that helps present a retailer as unique and superior to its competitors (Berry, 1996). Rosen and Purinton (2002) conclude that, within an online retail setting, the sensory aspect of the shopping experience must be evident in the way the Web site is presented.

3.2.4. The Relationships between Web site Quality, Service Quality, Value Perception and Satisfaction

Within the emerging literature on Web-based shopping, terms such as e-service quality and Web site quality have been used to describe both the technical elements of retail Web sites (e.g., speed, ease of use, and graphic styles) and the quality of the service provided by the retailers either through the sites or other channels to online shoppers (e.g., order fulfilment and return policy) (see, for example, Donthu, 2001; Zeithaml *et al.*, 2002). For example, Yang *et al.* (2003) consider Internet retailing service quality to comprise customer service and information systems. Wolfenbarger and Gilly (2003) develop eTailQ, a 14-item scale intended to measure online retailing quality. Their empirical study identifies four dimensions underlying this scale - Web design, order fulfilment, privacy and security, and customer service - all of which are considered to be strong predictors of customer perception of quality, satisfaction, loyalty and attitudes towards a Web site.

The main rationale for treating Web site quality and customer service quality as dimensions of the same construct is that a complete online buying experience consists of numerous activities from information search, product evaluation and online purchase to delivery, returns and customer service (Wolfinbarger and Gilly, 2003; Yang *et al.*, 2003). Some of these activities are influenced by Web site quality, while others are components of customer service. However, they all are interrelated and contribute to overall customer evaluation and satisfaction. Thus, it seems logical to assess these two factors using the same measurement scale.

Nonetheless, although Web site quality and customer service quality are closely related and complement each other, they both are complex and multi-dimensional in their own right. Therefore, confounding these two factors into a single construct may undermine their inherent complexity and thus hinder the development of an in-depth understanding of each factor. Considering Web site quality and service quality as parts of a composite may also preclude an examination of possible causal relationships between these two factors (i.e., it is possible that a well-designed Web site may positively influence customer perception of overall service quality (Zeithaml *et al.*, 2002)). Hence, it is potentially more beneficial to consider Web site quality and customer service quality as two independent, but related, constructs.

Many researchers (for example, Cronin *et al.*, 2000; Parasuraman and Grewal, 2000) indicate that service quality is an important driver of customer value perception. Customer value perception, in turn, plays a mediating role in the relationship between service quality and customer satisfaction (Caruana *et al.*, 2000). Within an online shopping environment, the technical quality of a retailing Web site is also an important contributor to customer value perception (Lynch *et al.*, 2001), and thus customer satisfaction

It can thus be inferred that service quality and Web site quality are important drivers of online shoppers' perception of value, all of which are predictors of overall customer satisfaction. In addition, Web site quality contributes to service quality. Consequently, the following hypotheses have been formulated:

H3a: Overall satisfaction is positively influenced by perception of value

H3b: Overall satisfaction is positively influenced by service quality

H3c: Overall satisfaction is positively influenced by Web site quality

H4: Service quality is positively influenced by Web site quality

H5a: Perception of value is positively influenced by service quality

H5b: Perception of value is positively influenced by Web site quality

This is illustrated in Figure 3.1.

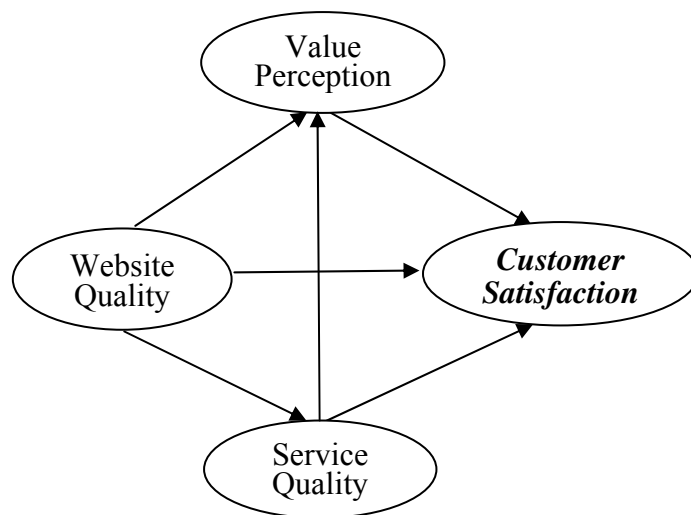


Figure 3.1. Hypothesised relationships between value perception, service quality, Web site quality, and satisfaction

Chapter 4 – Antecedents of Relationship Quality

4.1. Introduction

This chapter examines the antecedents of relationship quality and how these constructs relate to each other. A review of the relevant literature indicates that, within an online business context, relationship quality is likely to be determined by consumer perception of safety, trust, and commitment to a retailer. The interrelationships between these constructs are then discussed. On this basis, a number of research hypotheses are formulated.

This chapter also serves to conclude the literature review, which commences with Chapter 2. Together, Chapter 2, 3 and 4 provide the conceptual background on which the proposed research model for this study is built. The significance of the research model, in relation to the current literature on Web-based marketing, is then discussed, which points to the meaningful insights an empirical investigation of the proposed relationships can potentially offer.

4.2. Antecedents of Relationship Quality

Within the traditional business environment, trust and commitment have been established in the literature as important antecedents of relationship quality (see, for example, Moorman *et al.*, 1992; Morgan and Hunt, 1994). A quality relationship helps enhance consumer confidence in dealing with a Web-based retailer (Yen and Gwinner, 2003), thus reducing their perception of risk in online shopping. A study by Forsythe and Shi (2003) indicates that consumer risk perception is related to their online shopping frequency. Hence, because of the high-risk nature of online shopping (Girard *et al.*, 2002; Van den Poel and Leunis, 1999), online shoppers who feel safe in their relationship with a particular retailer are likely to appreciate, and thus are willing to maintain, the relationship. To this extent, consumer safety perception can potentially contribute to relationship quality. Therefore, it can be argued that safety perception, trust and

commitment are potentially important antecedents of relationship quality in online retailing. Each of these constructs is considered below.

4.2.1. Safety Perception

4.2.1.1. The significance of safety perception

Compared to manufactured products, service offerings inherently possess unique characteristics, such as intangibility, heterogeneity, and simultaneous production and consumption, which increase service consumers' risk perceptions. In an Internet-based service setting, the lack of direct interaction between service providers and service consumers further compounds the level of risk perceived by online consumers. Additionally, unlike customers of conventional retailers, Internet shoppers cannot see, touch or try online offerings. Instead, they can only read the descriptions of the offerings, possibly illustrated with some visual images. This increases the level of risk perceived by customers in an e-commerce context, no matter whether it is products or services that are being sold. Hence, Web-based retailing, like many other forms of non-store retailing, is often associated with a higher level of risk (Van den Poel and Leunis, 1999). Thus, Berry (1995b) concludes that consumers purchase through the Internet because of its potential benefits, for which they must learn to use the new technology and accept the risk of poor results.

Therefore, consumers who shop online are likely to give preference to e-retailers who can mitigate their risk perception. Forsythe and Shi (2003, p. 869) suggest that online consumer perception of risk is related to "the subjectively determined expectation of loss by an Internet shopper in contemplating a particular online purchase". Thus, because of this subjective expectation of loss, online shoppers are likely to assess the risks involved in a particular purchase against the risks associated with online shopping in general. Hence, all things being equal, consumers who perceive their transactions with a particular

e-retailer as being safeguarded against such risks are more likely to select the firm over its competitors. To this extent, perception of safety is potentially an important determinant in consumers' decision to purchase, and repurchase, from an e-retailer. Thus, for the purposes of this study, it is appropriate to examine consumer perception of safety in relation to their online retailers, as opposed to their perceptions of risks in relation to Internet shopping in general.

4.2.1.2. Attributes of safety perception

Although there exists a substantial body of literature on consumer perceptions of risks in Web-based settings, particularly on how such perceptions can influence consumer adoption of e-services (see, for example, de Ruyter *et al.*, 2001), research on consumer perception of safety with their online retailers remains scanty. Safety perception, as conceptualised above, can be considered as the antithesis of risk perception, in the sense that it is assessed against the risks typically associated with online shopping in general. Therefore, an examination of the literature on risk perception would be useful to identify attributes of safety perception.

Prior research (for example, Colby and Parasuraman, 2003; Szymanski and Hise, 2000) indicates that concerns about financial security are a major factor in the online buying decision. The fact that online purchases are pre-paid increases online shoppers' risk perception with regard to potential financial loss, and the corresponding uncertainty about satisfaction with their purchases. Consumers may also remain anxious about whether payment information could be transmitted securely over the Internet and, subsequently, the possibility that their credit card information may be misused (Forsythe and Shi, 2003). Perceived financial risk has been shown to be an important predictor of frequency of searching retail Web with intentions to buy, frequency of purchasing online, and amount spent on the Web (Forsythe and Shi, 2003).

Online consumers may also perceive a psychological risk in relation to the possibility that their personal information might be disclosed (Forsythe and Shi, 2003). Hence, Internet shoppers may remain uncertain and wary about untried e-retailers due to their perception of risk that stems from the need to reveal personal information as part of the online purchasing process (Girard *et al.*, 2002). Although issues pertaining to security and privacy are becoming increasingly important in Internet shopping, consumers typically are still not qualified to make judgements about such factors while buying online. Thus, they are likely to make inferences about the security and privacy levels of a retail Web site based on numerous factors, such as the look and feel of the site, its functionality, and the company's reputation (Wolfenbarger and Gilly, 2003).

In addition, the nature of Internet retailing means that online shoppers may find it difficult to accurately evaluate the quality of an online offering due to many reasons, such as their inability to touch, feel or try out the item, insufficient information on quality attributes, or inaccurate visual representation of the online offer. Consequently, consumers are likely to perceive a high level of risk in relation to the performance or quality of a product or service purchased online (Forsythe and Shi, 2003). As such, the return and cancellation policies of an Internet retailer can help offset online shoppers' perception of risk in buying from the retailer.

Also, in order to reduce the risk of dissatisfaction, consumers may rely on familiar brands (or Web sites), or engage in a search for other available options before making purchase decisions. However, research shows that such information searches are usually limited to a few alternatives because the costs of further searching do not justify the perceived benefits (Kolesar and Galbraith, 2000). Online consumers have been found to be reluctant to try different retailers within the same product or service category, choosing instead to remain with familiar Web sites due to the perceived hassles and risks involved in switching to

new retailers (Lynch *et al.*, 2001). Hence, the degree of familiarity that consumers have with an online retailer can contribute to their perception of safety in dealing with the retailer. It should be noted here, however, that an online shopper's decision to repurchase from familiar retailers does not necessarily indicate his/her loyalty to the retailers since e-loyalty involves much more than purchasing behaviour (see Section 2.2.3 for a detailed discussion on this issue).

In summary, consumer safety perception is based on the level of familiarity with an e-retailer, as well as many other risk relievers that the retailer offers such as its return and cancellation policy, privacy policy, and the Web site's security technologies.

Nonetheless, although such attributes are usually regarded a means of eliminating risks in business transactions, a firm's trustworthiness, as perceived by its customers, is not only more cost efficient but, in many cases, is the only option because it is usually difficult or impossible to anticipate many future events or design a contract that covers such events (Selnes, 1998). Hence, a trusting relationship with an e-retailer can help enhance online shoppers' safety perception and encourage them to remain with the retailer.

Bhatty *et al.* (2001) argue that, while loyal customers are more likely to give a firm a second chance when mistakes are made, they are also more likely to defect if, for any reasons, their trust in the firm is damaged. Hence, a service provider's opportunistic behaviour may negatively affect trust and customer perception of the relationship with the firm (Bowen and Shoemaker, 1998). On the other hand, a trusting relationship can lessen the fear of opportunistic behaviours from an exchange partner, thus reducing the costs of preventive measures (Bendapudi and Berry, 1997). Yen and Gwinner (2003) maintain that the benefits of trust are related to consumer perception of reduced uncertainty. In other words, trust can have a positive influence on safety perception.

4.2.2. Trust

4.2.2.1. The significance of trust

Moorman *et al.* (1992, p. 315) define trust as “the willingness to rely on an exchange partner in whom one has confidence”. The nature of service offerings means that service consumers typically pay in advance to buy a firm’s promise and, therefore, must be willing to rely on the firm to deliver its promise (Berry, 1995b). Trust is considered to be a pre-requisite for loyalty, especially in the risk-dominated cyberspace where transactions are conducted at a distance (Reichheld and Schefter, 2000). By committing to and pre-paying for an online purchase, consumers invest their trust in the Internet retailer. To this extent, it seems reasonable to expect that, compared to their offline counterparts, e-commerce firms have better opportunities to cultivate a strong relationship with their customers and to enhance customer loyalty. Nonetheless, it is also likely that consumers are taking a risk in exchange for the potential benefits (Berry, 1995b), rather than placing their trust on the firms. In addition, the kind of loyalty once stemmed from personal relationships between customers and a firm’s employees has been replaced by practicality, efficiency and expediency on the Internet (Graham, 1999). Gaining customer confidence, therefore, remains a major challenge for Web-based retailers.

Because it is more difficult for e-marketers to gain customer confidence, the importance of trust as a sustainable competitive advantage is magnified in this context. Online consumers have been found to be less concerned about privacy and security issues when dealing with Web-based retailers with good reputation (Girard *et al.*, 2002). Trust has been identified as the single most important determinant of consumers’ decision to choose one online retailer over another (Reichheld *et al.*, 2000). As consumers become more sophisticated and competent on the Internet, trust is increasingly recognised by Web-based retailers as a major differentiator (Urban *et al.*, 2000). For example, Amazon.com invests

40% of its revenue on brand building, in the belief that online consumers prefer to deal with the brand they know and trust (Mellahi and Johnson, 2000). Lynch *et al.* (2001) indicate that an online retailer's trustworthiness, as perceived by its customers, has a significant effect on the customers' willingness to purchase from and return to its Web site.

Customer perception of a firm's trustworthiness is valuable not only in terms of satisfying and retaining existing customers but, also, in attracting new customers through word-of-mouth marketing. According to Jones and Sasser (1995), word-of-mouth marketing plays a major role in acquiring new customers. Because of the high level of risk perception inherent in service offerings, potential customers are more likely to seek personal recommendations when choosing service providers than relying on information provided by the firms. In many cases, recommendations given by a colleague can significantly reduce a person's perceived risk in selecting an unfamiliar service organization (Bowen and Shoemaker, 1998). A customer, when recommending a service provider to a third party, undertakes a certain level of risk on his or her credibility toward the third party that is likely to erode if the firm fails to back up the recommendation (Foster and Cadogan, 2000). Therefore, customer perception of the firm's trustworthiness, which usually reduces the perceived risk of recommendation giving, increases the likelihood of customers suggesting the firm to others (Foster and Cadogan, 2000).

4.2.2.2. Attributes of trust

Bitner (1995) suggests that keeping promises is crucial to the development of a mutually beneficial relationship between customers and service providers. In order to build a trusting customer relationship, a service provider must demonstrate both its ability and willingness to deliver on what customers construe as has been promised, whether explicitly or implicitly (Bhatty *et al.*, 2001). Therefore, it is important that the firm can

understand and manage the types of expectations that have been created in its customers (Bhatty *et al.*, 2001). The firm then needs to consistently meet or exceed its customers' expectations with regards to its performance, at the same time promoting relationship-building behaviours in order to win customer trust, which is the basis of true loyalty (Bhatty *et al.*, 2001).

Given that the relationship between a business and its customers is formed, and maintained, within a commercial context, the existence of the relationship depends, ultimately, on the commercial benefits that each party receives. Business organizations attract their customers by offering, first of all, a bundle of benefits that are built around their core competencies. Thus, a firm must be able to promise and deliver a desirable level of professionalism in order to encourage repeat patronage and to develop customer relationships and loyalty. Therefore, the professional aspect of a customer-service provider relationship is more important than its interpersonal element (Bhatty *et al.*, 2001). To this end, Web-based service firms can overcome the lack of human interaction, commonly cited as a major obstacle to firms' efforts to build a trusting relationship with online customers, by consistently delivering a level of professionalism that meets or exceeds customer expectations (Bhatty *et al.*, 2001).

An empirical study by Pressey and Mathews (2000) confirms that the level of professionalism a retailer can offer to its customers correlates positively with the level of trust the customers have on the firm's ability to deliver its promises. Walker and Francis (2002) maintain that, within a technology-based service context, the level of confidence that customers have in a firm's ability to reliably deliver its promises is closely associated with their perception of the firm's trustworthiness. Therefore, it is important that a firm seeks to strengthen customer perception of its ability to perform as well as its reliability or, in other words, its ability to consistently satisfy the customers over a long time

horizon. According to Bowen and Shoemaker (1998), the importance of this reliability dimension of trust is that it cannot be easily duplicated by competitors, thus can provide the firm with a more powerful competitive advantage.

From a relationship marketing perspective, a service provider's reliability reflects not only through its ability to deliver service but, also, through its ability to resolve any problems with customers that are bound to occur from time to time. In a long-term relationship, the existence of conflicts is inevitable. However, it is the resolution of such conflicts that can be constructive or destructive to the relationship. From a customer perspective, a strong relationship with a service provider offers the assurance that the firm will be accessible when something goes wrong (Kandampully, 1998). Loyal customers assume responsible behaviors from their firms, especially in unexpected circumstances (Selnes, 1998). Therefore, effective problem handling that satisfies the customers will increase their trust in service providers, while attempts to suppress conflicts with customers will eventually lose out on the vitality and cooperativeness of customer relationships (Selnes, 1998).

Furthermore, Morgan and Hunt (1994) express the view that trust exists only when a customer has confidence not only in a firm's ability to perform consistently but, also, in its integrity. Hence, a firm's honesty, as perceived by its customers, is critical to the level of trust that the customers have toward the firm. Given that trust is a major determinant of relationship quality, a firm perceived by its customers as honest in its dealings is more likely to enjoy strong and lasting relationships with the customers (Bhatty *et al.*, 2001).

In summary, trust can be considered as a function of consumer perception of a retailer's integrity as well as its ability to perform its services, to keep its promises and commitment, and, in general, to "do the right things" consistently.

4.2.3. Commitment

4.2.3.1. The significance of commitment

A study by Morris *et al.* (1999) indicates that the level of trust customers invest in a firm correlates positively with the level of commitment maintained by both parties through shared values and relationship termination costs. Commitment plays a central role in the relationship marketing paradigm (Morgan and Hunt, 1994), and has been identified as an important dimension of customer-service provider relationship quality (Wong and Sohal, 2002a).

Conceptually, commitment differs from loyalty in that it is usually thought of in purely cognitive terms that describe a consumer's attitudinal attachment to a company (Pritchard *et al.*, 1999). For example, Moorman *et al.* (1992, p. 316) define commitment as "an enduring desire to maintain a valued relationship". Thus, commitment is enduring and implies a positive evaluation of a long-term relationship (Bowen and Shoemaker, 1998; Moorman *et al.*, 1992; Morgan and Hunt, 1994). Consequently, commitment is often seen as a key to long-term customer retention (Amine, 1998).

Bendapudi and Berry (1997) argue that the relationships that customers maintain with a service provider can be constraint-based (having to), or dedication-based (wanting to), leading to different types of relationships of different natures and relationship outcomes. For example, a dedication-based (committed) relationship manifests itself through cooperation and advocacy (i.e., recommendation), in addition to repeat patronage (Bendapudi and Berry, 1997). Storbacka *et al.* (1994) suggest that commitment refers to adaptation processes resulting from relevant parties' intentions to act and positive attitudes toward each other. The notion of commitment entails the belief by both parties that a lasting relationship is so important as to warrant the investment of efforts and resources, and the acceptance of short-term sacrifices in order to realise long-term benefits and to

ensure that the relationship endures in the long run (Bowen and Shoemaker, 1998; Morgan and Hunt, 1994). In this sense, commitment can be considered as a pledge of relational continuity (Oliver, 1999).

Commitment has also been shown to be a good predictor of customer future intentions and loyalty (Baldinger and Robinson, 1996; Park and Kim, 2003). According to Wong and Sohal (2002a), a high level of commitment leads to a compelling obligation to make the relationship mutually satisfying and beneficial. These authors point out that committed customers tend to perceive more value in the relationship with the firms they patronise, thus are more willing to take actions in favour of these firms in return for the benefits received. Therefore, the behaviours of committed customers bring more benefits to a firm than the behaviours of regular, but not committed, customers. As such, commitment is often seen as the driving force behind many forms of consumer behaviours. Thus, by developing a high level of commitment among its customers, a firm can make their purchase patterns more predictable and improve customer retention (Amine, 1998). For example, Bowen and Shoemaker (1998) found commitment to positively influence the incremental volume of business a loyal customer is likely to bring to a service provider.

Amine (1998) concludes that the notion of commitment is critical to a better understanding of the psychological processes underlying repurchase behaviour, and is useful to distinguish true customer loyalty from other forms of repeat patronage. Moreover, while repurchase behaviour may be achieved through satisfaction, it is commitment that leads to what is known as “apostle-like” or “partnership” behaviours (Curasi and Kennedy, 2002; Heskett, 2002). Specifically, White and Schneider (2000) propose that commitment influences numerous consumer behaviours such as considering alternative firms before making purchases (environmental scanning), purchasing exclusively from a firm (relationship enhancement), and providing word-of-mouth recommendations (advocacy). Empirical research by Bowen and Shoemaker (1998)

identifies a strong and positive relationship between customer commitment and their willingness to perform such behaviours. Committed customers are also more willing to cooperate with their firms to resolve problems that might occur, as opposed to exiting from the relationship, and to use such problem solving as a basis for new understanding (Bowen and Shoemaker, 1998). Amine (1998) and Pritchard *et al.* (1999) postulate that commitment manifests itself through a resistance to change. Therefore, loyal customers who are committed to a firm become reluctant to consider other available alternatives. This is consistent with one of the findings in Bhatti *et al.* (2001) which indicates that 43% of loyal customers would not buy from their retailers' competitors.

4.2.3.2. Attributes of Commitment

Amine (1998) contends that customer commitment may be caused by affective reasons, such as emotional feelings or attachment to a brand, or cognitive motives, such as perceived value or switching costs. Park and Kim (2003) echo this view, suggesting that customer commitment to a business firm is influenced by both emotional (i.e., affective) and judgemental (i.e., calculative) elements. Affective commitment is considered to be more powerful than calculative commitment in the development of true loyalty, because it is less likely to be affected by contingent events that may hinder the short-term benefits of repeat patronage (Amine, 1998). Hence, affective commitment is more reliable as an indicator of true customer commitment.

Park and Kim (2003) further argue that customer satisfaction with service quality, which is part of overall satisfaction, and customer perception of relational benefits, which are the benefits received from long-term relationships over and above core service performance, are key to customer commitment to an online store. Similarly, Amine (1998) expresses the view that consistent purchasing behaviour is dependent primarily on consumer perceptions of the benefits that result from remaining in a relationship with a firm. One empirical

study (Bowen and Shoemaker, 1998) confirms that benefits are one of the most important determinants of customer commitment to a service provider. Therefore, customer perception of relational benefits can be considered as an important dimension of their commitment to a business firm.

Commitment has also been found to be influenced by consumers' perceived differences among competing alternatives (Amine, 1998). Oliver (1999) observes that customers who are loyal to a firm hold a strong belief that the firm continues to represent the best alternative. To this extent, it can be argued that commitment is a function of consumer perceptions of the degree to which a firm represents the best available choice. Storbacka *et al.* (1994) reason that the number of choices available to consumers can influence their interest in and evaluations of competing alternatives. Therefore, within a competitive marketplace, it is important to consider consumer relative attitude, that is, the degree to which a consumer's attitude toward a firm dominates that toward other comparable alternatives (Olsen, 2002). A favorable relative attitude is considered to be a prerequisite for loyalty (Sivadas and Baker-Prewitt, 2000).

In summary, commitment can be considered as a function of customers' personal attachment to a retailer, as well as their perception of the company in relation to its competitors, and their orientation towards a long-term relationship with the retailer.

4.2.4. The relationships between safety perception, trust, commitment, and relationship quality

Moorman *et al.* (1992) suggest that the importance of trust is directly related to the levels of uncertainty and vulnerability (i.e., risks) that exist in a relationship. Consumers typically perceive a high level of risk in online shopping (de Ruyter *et al.*, 2001; Forsythe and Shi, 2003; Girard *et al.*, 2002; Van den Poel and Leunis, 1999). Therefore, the importance of trust increases in an online service setting where perceived risk is high. For

online shoppers, trust and recognition are among the most important drivers in the selection of an online retailer (Lynch *et al.*, 2001). By shopping at Web sites that they know and trust, online shoppers can, to some extent, offset the perceived risk usually associated with Internet shopping.

Trust is also a major facilitator of relationship enhancement to the extent that it can reduce perceived risks more efficiently than other mechanisms (Selnes, 1998). Hence, a high level of trust can help enhance online shoppers' safety perception in dealing with a Web-based retailer and encourage them to enter and remain in a long-term relationship with the retailer. It can thus be argued that safety perception acts as a mediator between trust and relationship quality, and that a high level of trust is likely to have a direct and positive effect on the likelihood that customers will become committed to relationships with the business (Moorman *et al.*, 1992; Park and Kim, 2003)

The interrelationships among customer relationship quality, trust, commitment and loyalty have been well established in the marketing and management literature (Berry, 1995b; Berry and Parasuraman, 1991; Foster and Cadogan, 2000; Graham, 1999; Kandampully, 1997). Bhatti *et al.* (2001) maintain that true loyalty is driven by a quality relationship based on trust between a firm and its customers. Similarly, Reichheld and Schefter (2000) argue that business firms need to earn trust from customers before they can win customer loyalty. Trust has been shown to be an important antecedent of both relationship commitment and loyalty (Bowen and Shoemaker, 1998). An empirical study by Hennig-Thurau *et al.* (2002) confirms that trust and commitment have a significant direct impact on customer loyalty. Within the relationship marketing literature, trust and commitment are considered central to relationship quality. (Moorman *et al.*, 1992; Morgan and Hunt, 1994; Wong and Sohal, 2002a).

Urban *et al.* (2000) assert that trust remains critical to customer relationship enhancement in an online context, hence should play a central role in Internet organisations' marketing strategies. Accordingly, although e-commerce speeds up business cycles, building customer relationships on the Internet takes time, just as it does in the traditional business environment. Thus, Internet retailers need to gain and repeatedly reinforce customer confidence through numerous interactions. This will help develop a sense of belonging, familiarity and emotional commitment that customers value beyond any rationale that is based on prices or other physical attributes (Walsh and Godfrey, 2000).

It can thus be inferred that safety perception, trust and commitment are important antecedents of relationship quality, and that trust can influence both commitment and safety perception. This is illustrated in Figure 4.1. Subsequently, the following hypotheses have been formulated

H6a: Relationship quality is positively influenced by commitment

H6b: Relationship quality is positively influenced by trust

H6c: Relationship quality is positively influenced by safety perception

H7: Commitment is positively influenced by trust

H8: Safety perception is positively influenced by trust

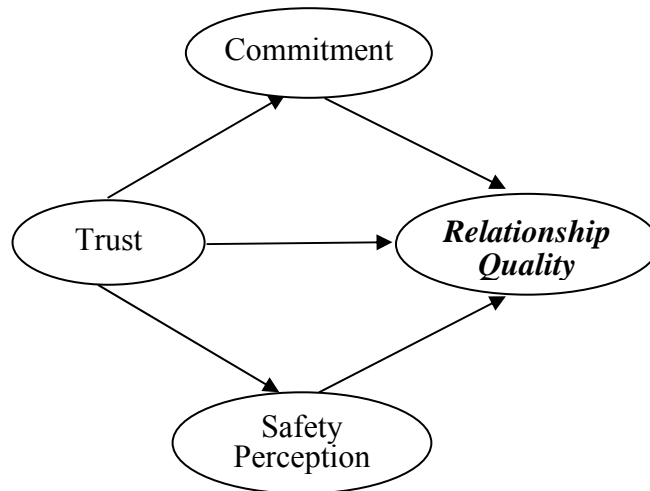


Figure 4.1: Hypothesised relationships between safety perception, trust, commitment and relationship quality

4.3. Concluding notes

This chapter, together with Chapters 2 and 3, provide the conceptual framework of this study. Accordingly, overall satisfaction and relationship quality are considered likely to be major determinants of customer loyalty in Web-based retailing. In addition, the framework suggests that overall satisfaction is influenced by customer perceptions of value, service quality and Web site quality, while relationship quality is a function of safety perception, trust and commitment. Consequently, these factors can reasonably be expected to also have a bearing on e-loyalty. The conceptual model in Figure 4.2 provides a visual illustration of the posited relationships between these constructs.

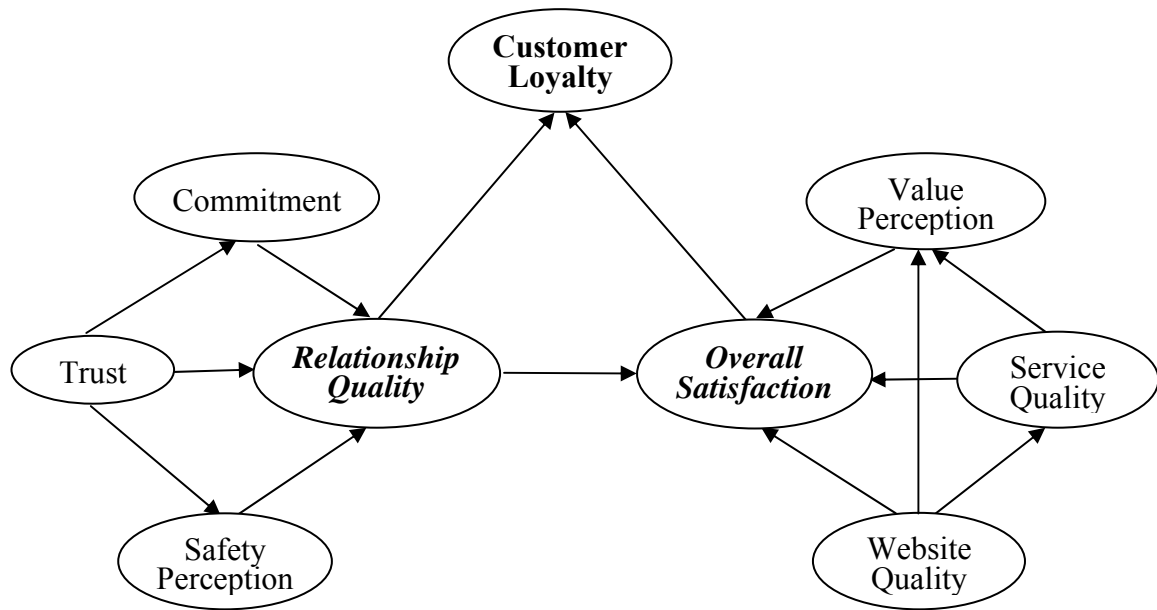


Figure 4.2. Proposed research model

While the proposed putative model is well supported by the literature, it remains to be empirically tested. Prior research that sought to examine the relationships between customer loyalty, overall satisfaction, relationship quality and their influencing factors has been conducted primarily in the offline context (see, for example, Cronin *et al.*, 2000; Foster and Cadogan, 2000; Moorman *et al.*, 1992; Morgan and Hunt, 1994; Olsen, 2002; Wong and Sohal, 2002a). Findings from such research may not hold in an online environment. As an example, Shankar *et al.* (2003) found that determinants of customer satisfaction and loyalty differ between online and offline contexts, and that the relationship between customer satisfaction and loyalty is different in each context.

Within the literature on Web-based services, a limited number of studies have developed and tested context-specific measurements for these variables (for example, Janda *et al.*, 2002; Liu and Arnett, 2000; Loiacono *et al.*, 2002; Szymanski and Hise, 2000). A relatively small number of studies have investigated some, but not all, of the relationships postulated in the proposed model. For example, Lynch *et al.* (2001) found site quality, trust and positive affect to be important determinants of online purchase behaviour and

loyalty. Park and Kim's (2003) survey of online customers shows that information quality, user interface quality, and security perceptions affect information satisfaction and relational benefits which, in turn, are significantly related to site commitment and actual purchase behaviour. Riel *et al.* (2001) found that overall satisfaction is influenced by customer satisfaction with core service, supplementary service, and user interface.

The main objective of this study, then, is to simultaneously assess these relationships by testing the proposed model on online shoppers. Considering the significance of the research constructs, and the current lack of empirical research in this domain, findings from this study can potentially offer important insights into this topic area.

Chapter 5 – Research Methodology

5.1. Introduction:

This chapter presents the research methodology that has been adopted for this study. First, an overview of the steps taken to develop the methodological framework is introduced (Figure 5.1). The purposes of, and the interrelationships between, these steps are then considered. The chapter subsequently discusses the various options available at each stage and establishes the logic underlying the selection of alternatives that were considered to be most suitable for the nature and purposes of this study. The execution of each process is also presented in detail.

The primary purpose of the empirical stage in this study was to substantiate the proposed theory on the relationships between the relevant constructs within an online retailing context. As Figure 5.1 shows, the first steps of the research design involved developing measurement scales for the research constructs, identifying potential respondents, and selecting the data collection method. On this basis, a survey was designed and administered in order to collect data for the study. The final step was data analysis which employed a series of quantitative including exploratory factor analysis (EFA), confirmatory factory analysis (CFA), and structural equation modelling (SEM).

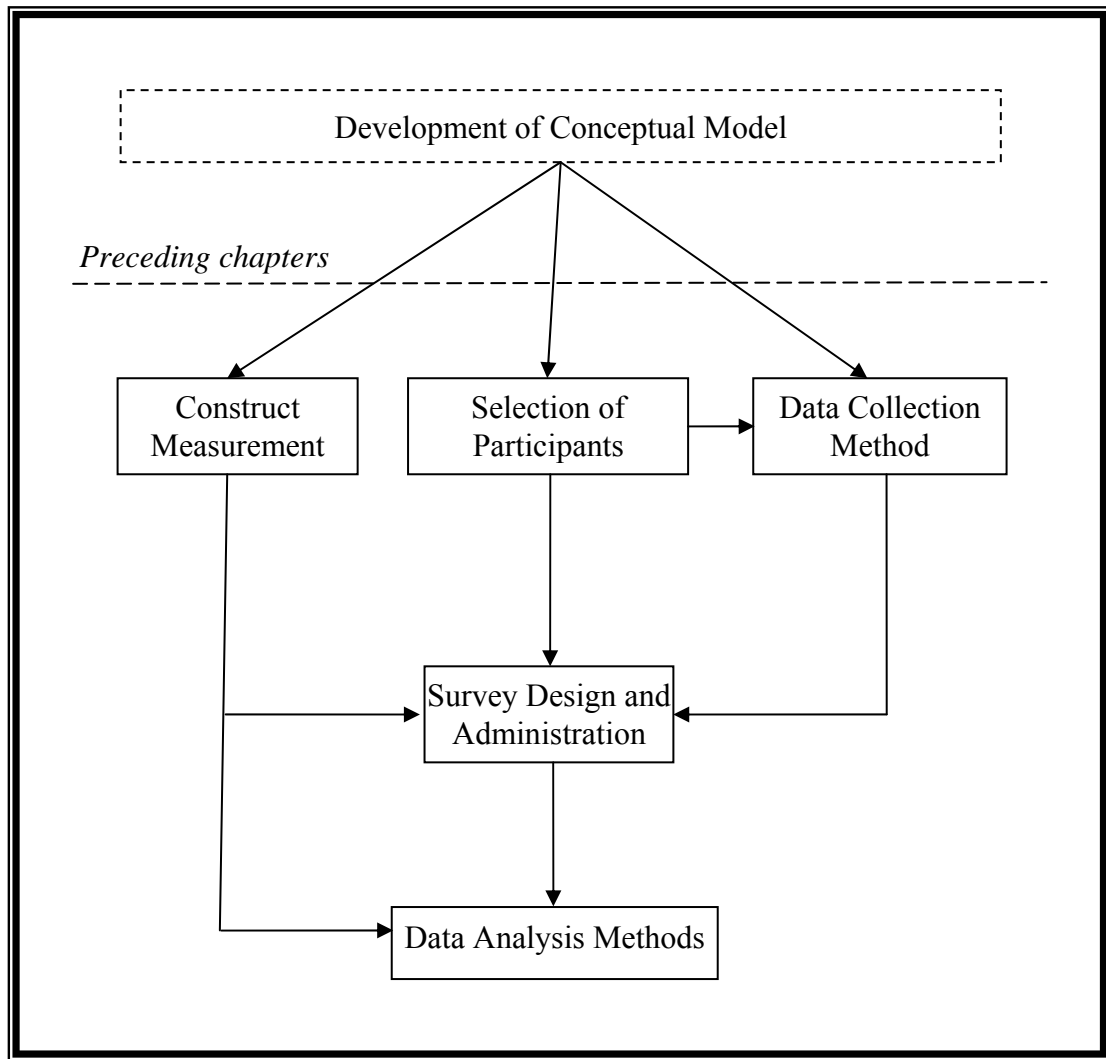


Figure 5.1. Methodological Framework

5.2. Measurement of the Research Constructs

5.2.1. Selection of Indicators

Consistent with the literature review, most research constructs (e.g., customer loyalty, Web site quality, and service quality) were hypothesised to be multi-dimensional and operationalised using multiple indicators. Hair *et al.* (1995) suggest that the use of multi-item scales, as opposed to single-item scales, to measure research constructs often yields results that are more reliable and is less likely to present systematic errors. Also, each indicator within the same set may assess a somewhat different aspect of a construct, which improves validity (Klein, 1998). Given the current lack of quantitative research in most

Internet-related topic areas, and the ways in which some of the constructs were conceptualised in this research, it was necessary to develop measurement scales for these constructs from the item-level, instead of adopting scales from other studies.

The body of literature on aspects of the Internet market is still in its formative stage. There is a dearth of quantitative studies, both exploratory and confirmatory, in this domain, particularly in Internet retailing. Thus, a thorough review of the relevant literature did not help to identify any measurement scales that could be directly applied to this study. This presented an early challenge in the empirical phase of the project.

On the other hand, in the last decade, there has been a great deal of both conceptual and qualitative research that attempts to identify constructs that are important in Internet-enabled markets, and to explore the characteristics and dimensions of these (for example, Cox and Dale, 2001; Jun and Cai, 2001; Zeithaml *et al.*, 2002). Findings from those studies offered a useful framework for the development of both the conceptual model and measurement scales for the present study.

Thus, the first step in the development of measurement scales for the research constructs was to conduct a review on numerous studies (for example, Loiacono *et al.*, 2002; Parasuraman *et al.*, 1991; Roy *et al.*, 2001; Sirdeshmukh *et al.*, 2002; Srinivasan *et al.*, 2002; Zeithaml *et al.*, 1996) in which the relevant constructs were examined. Details of these studies are presented in Appendix A. A few measurement scales designed by commercial firms (e.g., Bizrate.com) were also considered (see Appendix A). The findings were then synthesised and reworded, where necessary, resulting in a pool of questions with over 300 items (see Appendix B). These included indicators adapted from studies that were originally conducted in the offline, as well as online, environments. Some of the notable ones include selected items from the SERVQUAL battery (Parasuraman *et al.*, 1991) and Loiacono *et al.*'s (2002) WebQual scale. Given the context of this study,

emphasis was given to indicators that had been tested in online retailing or other Internet-based contexts (for example, Park and Kim, 2003; Srinivasan *et al.*, 2002). Also included were a number of indicators intended to measure attributes that were identified in prior research (see Chapter 2, 3 and 4) as important in online retailing, but had not been empirically tested (e.g., the technical reliability of a retail Web site). Details are presented in Appendix B.

5.2.2. Questionnaire Design

Based on the resulting collection of indicators, a questionnaire was developed with 92 items (Appendix C) that were considered to be most consistent with the literature, relevant to this particular research context, and representative of the question pool. For items that have been empirically tested in prior research, another selection criterion was the way they performed in these studies. These indicators were intended to measure nine constructs as depicted in the research model. All indicators were measured on a 7-point Likert scale anchoring at 1 (strongly disagree) and 7 (strongly agree). As many of the questions were concerned with aspects of Web-based shopping that were unlikely to have been experienced by all online shoppers (such as making complaints), a 0 (don't know) option was also included in the scale.

Since the questionnaire was relatively long, it was divided into two sections entitled "About the Web site" and "About the company" so as not to appear too lengthy. This also aimed to help respondents form an initial expectation about what might be asked in each section, thus making their task easier and increasing their cooperation.

Extra care was taken to ensure that potential problems related to the content of the questionnaire, such as double-barrelled, loaded or ambiguous questions, were avoided. Individual questions were scrutinised to ensure that they fit well with the context of the research (i.e., online shopping), and that they were as clear and concise as possible to

minimise the amount of time and effort that a respondent might need to complete the questionnaire. To this end, the use of a single scale throughout the questionnaire also helped increase the ease of completing the survey. Also, questions pertaining to the same aspects of the online shopping experience were grouped together to avoid disruption to participants' flows of thoughts as they proceeded. However, some items were negatively worded to detect cases where respondents gave ratings automatically without reading the questions (see Chapter 6 for details of these items).

5.3. Selection of Participants

5.3.1. The Target Population

As with any studies, it was essential to properly identify the target population before sampling took place. This helped ensure that the collected data came from a source of information pertinent to the research objectives. For this study, since data were to be collected via an online survey (see section 5.4.2), which means that the selection of respondents depended largely upon the automated access control measures integrated into the design of the survey instrument, identifying the population of interest became critically important to ensure that the survey was designed so that only unsuitable participants were filtered out, and that the same respondents were not repeatedly invited to participate.

The target population of this research consisted of buyers of different types of consumer products and services that are retailed over the Internet. This excludes people who browse Web sites solely for information on product availability and prices, for instance, without actually purchasing online. Hence, potential respondents were invited to participate in the survey only after they had made an online purchase.

5.3.2. The Working Population

Zikmund (2000) observes that, in most research contexts, it is usually not possible to create a list of potential respondents that does not exclude some members of the population. In such cases, it is necessary to specify the working population (or sampling frame) that identifies a group of possible participants who can be worked with operationally (Zikmund, 2000). This study targets the population of online shoppers which, by nature, is quite large and diverse. Therefore, it was not possible to ensure that every member of the population of interest had an equal, non-zero chance of being included into the sample. Hence, in the interest of practicality and expediency, the working population of this research was identified as customers of selected online retailers.

A total of 100 Australian Internet retailers were invited to participate in the study by redirecting their customers to the survey Web site. These were randomly selected using Australian Internet search engines and online directories. However, in order to increase the generalisability of the research findings, care was taken to include retailers that sell different types of products and/or services. As an incentive, these firms were offered the chance to receive a summary of feedback from their own customers, as well as a summary of the research findings.

Eighteen retailers responded to the invitation, twelve of which either agreed to participate or requested more information. A major concern expressed by many of the firms was the length of the questionnaire which they feared would annoy their customers. One manager suggested that her company would be interested in participating in the study if the number of questions was reduced.

However, as discussed above, the measurement scales were designed for this study using both indicators that were newly developed based on existing theories, as well as those that had been tested in different studies in different contexts. This means that the reliability and validity of the scales, as well as the statistical performance of individual indicators in this particular research context, had not been confirmed. Therefore, removing items from the questionnaire at this stage posed the risk of affecting the usefulness of the collected data set. Hence, the possibility of shortening the questionnaire to increase the number of participants was rejected.

Eventually, only four retailers agreed to integrate the survey URL into their Web sites. These firms sell a wide range of consumer products and services, ranging from hotel rooms to books and electronic devices. Therefore, their customers were considered to be representative of the online shopper population. Consequently, it was decided that seeking the participation of more retailers was not necessary.

5.4. Data Collection Method

5.4.1. Self-administered questionnaire

While several data collection techniques have been developed and applied across different disciplines, market survey has been identified as the most popular means of generating primary data in business research (Zikmund, 2000). For marketing researchers, the self-administered questionnaire survey has proven to be an important and useful instrument (Ranchhod and Zhou, 2001).

For the purposes of this study, although there were many possible approaches to communicate with respondents, such as online focus groups and chat rooms, the self-administered questionnaire was considered to be the most suitable method given the time and budget constraints of the project. More importantly, since the questionnaire was

highly structured and relatively straightforward, respondents were likely to be able to complete the survey on their own without help from the researcher. Therefore, the use of a self-administered questionnaire helped increase the convenience of participating in the survey.

A cross-sectional survey was also considered to be more suitable for this study as compared to alternative designs such as a longitudinal panel, an experiment or quasi-experiment which by nature require more time and efforts from respondents. Indeed, given the lack of any tangible incentives, economic or otherwise, recruiting a sufficiently large sample of “real” online shoppers who agree to participate in a study that features any of these competing designs may prove to be impossible.

5.4.2. Online survey

Since online shoppers communicate with their retailers primarily via the Web, the Internet was considered to be the prime channel to collect data from this population. Nonetheless, as Web-based survey is still a relatively new data collection instrument, careful considerations were given with regards to the benefits and drawbacks of this approach.

In recent years, online surveys are attracting increasing interest from marketing academics and practitioners, who account for approximately 70% of the use of the Internet as a data collection tool (Griggs *et al.*, 2001; Ilieva *et al.*, 2002). The emergence of the Internet as a survey instrument has offered researchers with numerous benefits, notably in terms of speed, geographical access and cost efficiency (Basi, 1999; Ilieva *et al.*, 2002; Kent and Lee, 1999; Tse, 1998). In addition, findings from many comparative studies (Mehta and Sivadas, 1995; Schaefer and Dillman, 1998; Tse, 1998; Tse *et al.*, 1995) indicate that online responses generally provide more complete information and are more insightful than mail responses, while item non-response rates do not significantly differ between the two approaches.

Some authors (Ilieva *et al.*, 2002; Mehta and Sivadas, 1995) argue that email is more convenient and practical for two-way communication between researchers and respondents in case further questions or clarifications are required during a survey. Furthermore, because the collected data can be electronically sorted and stored, this data collection channel eliminates the need for data entry, as well as the risk of data entry error (Kent and Lee, 1999). Since RMIT University already had a Web publishing system that could be used to build an online survey, this method was also considered to be significantly more cost-effective than other means of data collection, such as personal interviews and postal questionnaires.

On the other hand, several problems associated with the use of the Internet as a data collection instrument, in its present stage, are also widely acknowledged. One major weakness of Internet surveying is the lower response rates that are usually obtained in comparison to those of conventional approaches (Ranchhod and Zhou, 2001; Schaefer and Dillman, 1998). For example, compared to the traditional postal survey, e-mail surveys often yield considerably lower levels of response (Couper, 2000; Ranchhod and Zhou, 2001). Typically, these response rates are below 10% (Kent and Lee, 1999; Riel *et al.*, 2001; Tse *et al.*, 1995). Although some researchers (Ilieva *et al.*, 2002; Parker, 1992) have been able to report e-mail response rates that are equal to or higher than their mail counterparts, these studies often focus on very restrictive populations (e.g., employees of a company).

Another popular method to gather data online is the use of Web-based surveys which can be in the form of a pop-up questionnaire, fixed banner invitation, part of a Webpage, or a combination of these (see Bradley (1999) for a review). The use of a Web-based survey can usually eliminate many technical issues associated with sending a questionnaire via email, such as size of the email, participant anonymity, system compatibility, layout and presentation (Couper, 2000; Ranchhod and Zhou, 2001).

The main weakness of a Web-based survey, however, is that it usually yields even a lower response rate compared to an email survey, due to the lack of personalisation that is often used to improve response rates in both email and mail surveys (Schaefer and Dillman, 1998). Also, researchers often have very limited control of participants (Bradley, 1999), which increases the likelihood of multiple completions of the survey by the same respondent, respondents passing the survey to others to complete, and participation by people who are not part of the target population (Couper, 2000; Ilieva et al., 2002). However, with the aid of technology, these can be prevented through the use of measures such as system-generated passwords and email identifiers (Couper, 2000; Meuter et al., 2000).

In addition, a commonly cited potential problem for all Internet surveying methods is sampling error, as only Internet users are able to participate in an Internet survey, who may not be representative of the target population (Bradley, 1999; Couper, 2000; Zikmund, 2000). Therefore, Coomber (1997) concludes that this method is most useful to generate informative and reliable data about specific online populations only.

In summary, as with any other data collection methods, Internet survey has its own advantages and disadvantages. All things considered, it seemed that an online survey was appropriate for the purposes of this research. In particular, since the study focused on an Internet-based service sector, sampling problems associated with respondents' access and ability to use the Internet were not an issue. Hence, an online survey was suitable for the target population. It also offered many benefits in terms of cost-savings and increased efficiency in data collection and processing. On the other hand, having identified the drawbacks that are often associated with Internet surveying, it was possible to design the survey in a way that would minimise the potential effects arising from such issues.

5.5. Survey Design and Administration

5.5.1. Survey Design

A Web site was developed using RMIT University's existing Web Publishing system. The site contained an introduction to the survey, the Plain Language Statement and the questionnaire. A "thank-you" note was also designed to appear every time a response was submitted. Participating retailers were asked for their expressed permission to feature their company logos on the survey page. The questionnaire was not displayed on the retailers' home pages, so that visitors who were not part of the target population (e.g., pure browsers) would not be able to participate. This also helped minimise disruptions to the functioning of the retailers' Web sites.

Customers who completed a purchase from participating Web sites were re-directed to the survey Web site. Automated access control measures were applied so that the re-direction would not happen to the same customer more than once (see section 5.4.2). This helped ensure that only actual customers were invited, that the customers could easily opt out (because the purchase was already completed), and that each respondent could complete the survey only once.

5.5.2. Survey Administration

After confirmation was received from participating retailers that a link between their Web site and the survey had been established and activated, the functionality of the online questionnaire, as well as the quality and quantity of the collected data set were regularly monitored. Once the first 50 responses were collected, the measurement scales were subjected to a reliability analysis. Cronbach alpha was used as the primary determinant of the scales' reliability. This initial testing yielded good reliability scores across all

measurement scales ($\alpha \geq 0.80$). Hence, the survey was allowed to proceed without any modifications to the questionnaire.

As the survey progressed and the number of responses increased, the collected data set was frequently checked for irregularities. Reliability analysis was repeated every time an additional 100 responses were received. Overall, the measurement scales performed consistently throughout the survey. Details are presented in Table 5.1.

Table 5.1: Progressive reliability scores for multiple-indicator measurement scales

Sample size	50	100	200	300	400	500	600
Loyalty	0.86	0.86	0.89	0.90	0.91	0.90	0.90
Overall Satisfaction	0.80	0.79	0.80	0.81	0.80	0.80	0.80
Service Quality	0.87	0.88	0.89	0.90	0.92	0.92	0.93
Website Quality	0.88	0.89	0.91	0.93	0.92	0.93	0.94
Value Perception	0.87	0.88	0.89	0.91	0.92	0.92	0.92
Commitment	0.88	0.88	0.92	0.92	0.91	0.93	0.92
Trust	0.94	0.93	0.96	0.97	0.98	0.98	0.97
Risk Perception	0.87	0.86	0.88	0.89	0.89	0.88	0.88

5.6. Data Analysis Methods

After the data collection was completed, the last step in the empirical phase of the study was to analyse the collected data set and to test the research model. This required careful planning and execution due to the complex nature of the study. Indeed, the number of variables involved in this research, and the proposed relationships among these variables necessitated the use of a series of multivariate statistical analyses.

The aim of data analysis in this study was two-fold. First, it sought to identify the indicators that best described the research constructs, and the ways in which these

indicators related to each other within each construct. Second, it aimed to test the hypothesised structural relationships among the constructs as depicted in the research model. In other words, the procedure can be described as a two-phase approach:

- Stage 1: Assessing the research constructs; and
- Stage 2: Assessing the research model

5.6.1. Assessing the Research Constructs

The primary objective of this stage was to develop and test measurement models for individual research constructs. This involved assessing the sets of indicators that were intended to measure these constructs, identifying the underlying dimensions of each construct, and reconfirming these dimensions through a series of measurement model testings.

Although most indicators used in this study had been tested in prior research, the scales themselves were newly developed specifically for the present study. Thus, it was necessary to assess the statistical performance of individual measurement scales before analysis on the relationships among variables could be conducted. Also, it was important to gauge the performance of individual indicators within each measurement scale. For these purposes, Cronbach alpha scores and item-to-total correlations were used as assessment criteria (Pallant, 2001).

Additionally, while the measurement scales were developed with the intention to capture the major dimensions of each research construct as established in the literature review, it remained uncertain whether these would be reflective of the collected data set. Hence, the next step was to subject each measurement scale to an exploratory factor analysis (EFA) in order to probe the dimensionality of each construct. This also helped reduce the number of

variables to a more manageable size for model testing, and improve the interpretability of the statistical outputs.

However, as its name suggests, findings from the EFAs were exploratory by nature as they relied more heavily on the statistical performance of the indicators than on their meanings (Hair *et al.*, 1995). Although the interpretability of the EFA solutions was also used as a secondary assessment criterion, it was influenced by the researcher's subjective evaluation and, therefore, the solutions remained inconclusive and required further testing.

Nonetheless, results of the EFAs provided useful information about the underlying factor structures that served as a guideline for the construction of measurement models for the research constructs. To this end, the EFA provided support for the legitimacy of both the measurement models and the use of confirmatory factor analysis (CFA) to test these models (Byrne, 2001).

5.6.2. Assessing the Research Model

Having identified and confirmed the underlying dimensions of the research constructs, the main purpose of this phase of data analysis was to examine the structural relationships among these constructs as postulated in the conceptual framework. Since some of the research hypotheses were concerned with the simultaneous effects of more than one independent variable (e.g., customer satisfaction and relationship quality) on a dependent variable (e.g., loyalty), as well as the relationship between the independent variables, testing these relationships necessitated the use of a statistical tool that can assess the research model in its entirety.

To this end, the Structural Equation Modeling (SEM) technique lent itself particularly well to the purposes of this study because (1) the research model was a priori and (2) the testing of this model was for inferential purposes (Byrne, 2001). According to Hair *et al.* (1995),

SEM can simultaneously examine a series of relationships between dependent variables and independent variables, especially when a dependent variable in one relationship becomes an independent variable in another relationship. Moreover, this technique is suitable to test a set of relationships that form a large-scale model, thereby developing a more systematic and holistic view of problems (Hair *et al.*, 1995). Therefore, SEM was adopted to test the research model.

Chapter 6 - Data Analysis

6.1. Introduction

This chapter details the processing of the collected data and its results. As discussed in Chapter 5, this involved a multi-stage procedure. First, the collected data set was screened to prepare for subsequent quantitative analyses. Then, a reliability test was performed on individual measurement scales to ensure that they achieve an acceptable level of reliability for further analysis. The next step was to subject each multi-indicator measurement scale to an exploratory factor analysis to identify their underlying dimensions. The resulting solutions were then re-assessed using a series of confirmatory factor analyses. Finally, structural equation modeling was used to test the hypothesised relationships between the research constructs as postulated in the conceptual model, and to assess the overall goodness-of-fit between the proposed model and the collected data set. Figure 6.1 presents an outline of the adopted data analysis procedure.

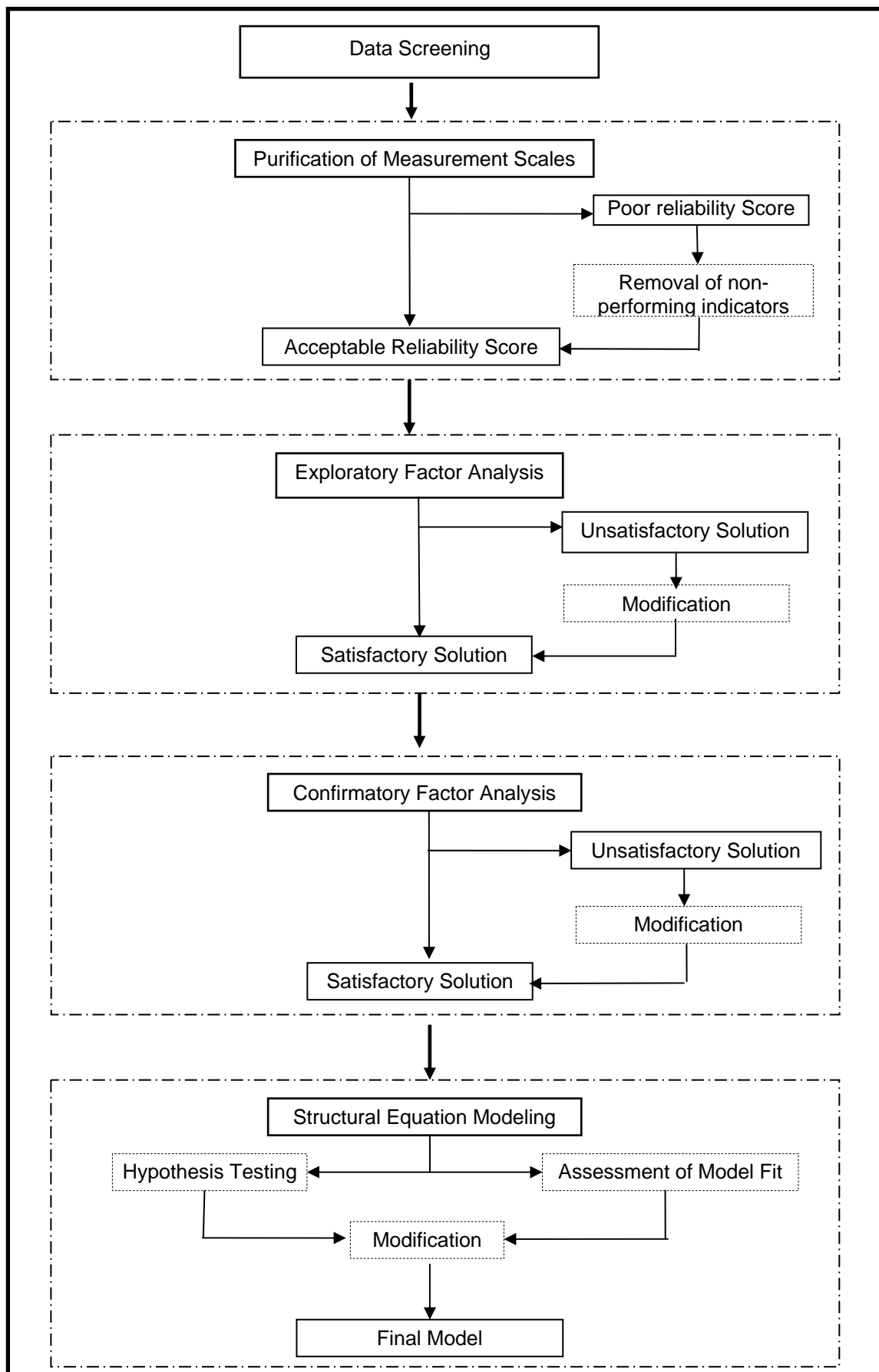


Figure 6.1. Data analysis procedure

6.2. Data Screening

A total of 755 responses were received. In general, item non-response rates were low. However, some indicators received a zero (don't know) rating from a large number of respondents. This was expected because, given the comprehensive nature of the questionnaire, some respondents might not be able to answer all questions. Indeed, most of these indicators are related to aspects of online purchases that are unlikely to have been experienced by all shoppers. For example, those who have not experienced any problems with their retailers would not be able to rate the retailers' willingness and ability to solve customer problems. On the other hand, by choosing the "don't know" option, instead of skipping the questions completely, these respondents indicated a willingness to provide accurate and complete information.

Nonetheless, a zero rating, in this case, did not represent a consumer evaluation of a retailer on a certain aspect. Hence, for the purposes of quantitative analysis, it was appropriate to consider these cases as non-usable data. When the collected data set was recoded accordingly (i.e., zero ratings were recoded as missing data), the non-response rates for some indicators increased significantly. This, in turn, increased the number of cases with missing data in the whole data set.

Therefore, it was decided that cases with a reasonably small amount of missing data would be retained for model testing purposes. Arbuckle and Wothke (1999) demonstrate that the outputs of AMOS 4.0 (which was used to assess the research model) using maximum likelihood estimation would remain reliable despite 25% missing data. Hence, it would be appropriate to retain cases with less than 25% missing data. However, since the collected data set was sufficiently large, a more conservative level of 20% was adopted for this study with the aim of further increasing the reliability of the analytical outputs. All cases with 20% or more missing data were subsequently excluded from the analysis. This

resulted in a usable sample size of 551. Cases with missing data were treated using Maximum Likelihood estimation.

6.3. Purification of Measurement Scales

Since the measurement scales consisted of items that were originally used in different studies, as well as those that were newly developed for this research based on existing theory, it was necessary to “purify” the scales before any further analysis could be conducted. This involved calculating alpha scores for each of the scales and removing indicators with low item-to-total correlations (<0.40) when they were considered not to represent a unique and significant theoretical dimension (Moorman *et al.*, 1992; Pritchard *et al.*, 1999). In general, the measurement scales performed well at this stage (Cronbach alpha > 0.70) and it was necessary to remove only a few items due to poor item-to-total correlations. Results are presented in Table 6.1.

Table 6.1. Results of Measurement Scale Purifications

Scale	Number of items			Reliability score
	Total	Deleted	Remaining	
Loyalty	20	5	15	0.92
Overall Satisfaction	3	nil	3	0.80
Service Quality	15	nil	15	0.93
Web Site Quality	14	nil	14	0.94
Value Perception	11	nil	11	0.92
Relationship Quality	1	nil	1	n/a
Commitment	9	nil	9	0.92
Trust	12	1	11	0.97
Safety Perception	7	nil	7	0.88

6.4. Exploratory Factor Analysis

With the exceptions of Overall Satisfaction (three items) and Relationship Quality (one item), all other scales consist of several indicators. Hence, it was necessary to reduce these scales into sub-dimensions in order to improve the efficiency and effectiveness of further analysis. For this purpose, the scales were subjected to an exploratory factor analysis (EFA) with varimax rotation (Hair *et al.*, 1995). Initially, the number of factors to be extracted was set using eigenvalue ≥ 1 as the main criterion (Pallant, 2001). When a resulting output did not provide an interpretable solution, the number of factors to be extracted would be increased progressively until a satisfactory solution was found. Typically, indicators that highly cross-loaded on two or more factors were deleted, except when such cross-loadings could be justified conceptually. The reliability of each resulting factor was then assessed using its Cronbach alpha value. Details of the EFAs are presented below.

6.4.1. Loyalty

Two items were deleted because of high cross loadings. These are LO3 (I intend to do more business with this company) and LO9 (it is unlikely that I would switch to another Web site). The scree test suggested a four-factor solution. All four factors have eigenvalues greater than 1, and together explain 74% of the variance. The underlying dimensions of loyalty are:

- Loyal1 (six items): supporting the Web site through purchasing behaviour and word-of mouth communication;
- Loyal2 (two items): lower price sensitivity and resistance to change/substitution;
- Loyal3 (two items): willingness to expand the scope of consumption in favour of the retailer; and

- Loyal4 (three items): supporting the company through partner-like behaviours.

Details are presented in Table 6.2.

Table 6.2. Dimensions of Customer Loyalty

Factor	Alpha	Indicator	Mean	Std Dev	Loading
Loyal1	0.90	LO1: I usually visit this Web site first when I need to shop online for this type of product/service.	4.69	1.72	0.83
		LO2: I intend to continue buying from this Web site.	5.80	0.97	0.68
		LO4: I often recommend this Web site to other people.	4.80	1.64	0.85
		LO5: I take pride in telling other people about my experiences on this Web site.	4.43	1.54	0.74
		LO6: I say positive things about this Web site to other people.	4.99	1.45	0.80
		LO15: I am a regular customer of this Web site. (*)	4.28	1.54	0.77
Loyal2	0.73	LO11: I would continue to buy from this Web site even if its prices increased somewhat.	3.40	1.54	0.86
		LO13: I would not shop at any other Web sites for products/services that are available on this site.	3.41	1.62	0.85
Loyal3	0.77	LO16: I would be willing to buy extra products/services that are suggested by this Web site.	4.24	1.33	0.83
		LO17: I would be willing to try new offers on this Web site.	4.88	1.16	0.84
Loyal4	0.79	LO7: I am willing to provide this company with my comments/suggestions.	5.41	1.15	0.78
		LO8: I am willing to provide this company with my testimonials.	4.81	1.34	0.77
		LO20: I am willing to give this company a second chance when there is a problem that leads to my dissatisfaction.	5.10	1.31	0.76

(*) Deleted in Confirmatory Factor Analysis

6.4.2. Service Quality

The EFA suggested a three-factor solution. One item (SQ9 –This company keeps its records accurately) highly cross-loaded on Factor 2 and 3 and, therefore, was deleted. Another indicator (SQ4 – This company is responsive to my requests), which loaded mainly on Factor 2, also had a relatively high loading on Factor 3. However, this cross-loading was meaningful. Hence, SQ4 was retained and was subsequently allowed to cross-load in both the measurement and structural models. The three-factor solution explains 77% of the variance and corresponds with the three main stages in a consumer's online shopping experience, namely:

- Retail Selection (RetSel - four items): the depth and breadth of the selection on the Web site, and the quality and quantity of information provided about the available choices.
- Service Delivery (SerDel - six items, including one cross-loading item): the retailer's performance in relation to the delivery of its services.
- Customer Support (CustSup - five items, including one cross-loading item): the retailer's willingness and ability to deal with customer requests and complaints and to provide easy access to human customer support

The components of the factors are presented in Table 6.3.

Table 6.3. Dimensions of Service Quality

Factor	Alpha	Indicator	Mean	Std Dev	Loading
RetSel	0.85	SQ11: This Web site carries a wide selection of different offers to choose from.	5.66	1.16	0.74
		SQ12: I am satisfied with the depth of the selection that this Web site offers.	5.75	1.10	0.79
		SQ13: I am satisfied with the quality of information on this Web site.	5.59	1.17	0.90
		SQ14: I am satisfied with the quantity of information on this Web site.	5.44	1.29	0.84
SerDel	0.93	SQ1: This company performs its service right the first time.	5.42	1.13	0.86
		SQ2: This company keeps me informed when the service will be provided.	5.35	1.20	0.79
		SQ3: This company delivers service at the time it promises. (*)	5.26	1.25	0.82
		SQ4: This company is responsive to my requests. (**)	5.23	1.18	0.69
		SQ10: The terms and conditions laid out by this company are customer friendly and fair. (*)	5.49	1.00	0.65
		SQ15: Overall, this company is a capable and proficient service provider.	5.50	1.07	0.78
CustSup	0.93	SQ4: This company is responsive to my requests. (**)	5.23	1.18	0.51
		SQ5: This company is responsive to my complaints.	4.61	1.11	0.86
		SQ6: This company is dependable in handling customer service problems.	4.73	1.16	0.88
		SQ7: When I have a problem, this company shows a sincere interest in solving it.	4.64	1.13	0.89
		SQ8: This company provides easy access to human customer support.	4.78	1.17	0.77

(*) deleted in Confirmatory Factor Analysis

(**) cross-loading indicator

6.4.3. Web Site Quality

Results indicated that only three-factors have eigenvalues greater than one. However, these three factors did not seem to represent any well-defined constructs. Consequently, the EFA was run again with the number of factors to be extracted arbitrarily set at four, and then five. The five-factor solution seemed to achieve the optimal interpretability. Nonetheless, it was still necessary to remove WQ7 (Comparison-shopping is easy on this Web site) and WQ12 (This Web site clearly shows how I could communicate with the company by different means) because of mixed themed loadings. One indicator (WQ6 – it is easy to find the information I want on this Web site) highly cross-loaded on Factor 2 (Ease of Use) and Factor 3 (Search Function). However, this cross-loading was interpretable and, therefore, WQ6 was retained in further analysis. The remaining 12 items form a neat and highly interpretable five-factor solution that explains 87% of the variance and includes some of the most commonly cited aspects of Web site quality. These factors include:

- Speed (two items): how fast the site loads and responds to a user's commands.
- Ease of Use (EoU - four items, including one cross-loading indicator): which also includes the ease with which information provided on the site can be read and understood.
- Search Function (Search - three items, including one cross-loading indicator): the quantity and quality of search options provided on the site.
- Performance (Perform - two items): the technical reliability of the Web site.
- Appearance (Appear - two items): the visual appeal of the Web site

Details of the dimensions of Web site quality are presented in Table 6.4.

Table 6.4. Dimensions of Web Site Quality

Factor	Alpha	Indicator	Mean	Std Dev	Loading
Speed	0.91	WQ1: This Web site loads quickly.	5.58	1.18	0.92
		WQ2: While I use this Web site there is very little waiting time between my actions and the site's response.	5.58	1.21	0.91
EoU	0.89	WQ3: I find this Web site easy to use.	5.89	1.06	0.70
		WQ4: The information presented on this Web site is easy to read.	5.98	0.91	0.87
		WQ5: The information provided on this Web site is easy to understand.	6.03	0.88	0.85
		WQ6: On this Web site, it is easy to find the information I want. (**)	5.66	1.20	0.63
Search	0.88	WQ6: On this Web site, it is easy to find the information I want. (**)	5.66	1.20	0.56
		WQ8: This Web site has sufficient search functions.	5.39	1.40	0.87
		WQ9: This Web site has effective search functions.	5.52	1.28	0.86
Perform	0.92	WQ13: This Web site is technically reliable.	5.59	1.11	0.89
		WQ14: Overall, this Web site works very well technically.	5.67	1.08	0.89
Appear	0.85	WQ10: This Web site has helpful pictures and graphics.	5.36	1.31	0.83
		WQ11: This Web site is visually appealing.	5.35	1.36	0.87

(**) cross-loading indicator

6.4.4. Value Perception

The EFA showed that only three factors have eigenvalues greater than one. However, this solution was difficult to interpret. Further exploration indicated that a five-factor solution

was both parsimonious and interpretable, although one indicator (PV8 – Overall, my shopping experience at this Web site is of good value) had to be deleted due to cross-loading. The resulting five factors explain 87.45% of the total variance, and represent five major aspects of consumer value perception. These are:

- Quality-based Value (Quality - two items): customer value perception in relation to the quality of available offers.
- Price-based Value (Price - two items): customer value perception in relation to the prices of available offers.
- Reduction of Shopping Time and Effort (TimeEff - two items): customer perception of value in relation to the reduction of time and effort as a consequence of shopping on the Web site.
- Overall Cost-benefit Trade-off (CostBen - one item): the overall benefits received while using the Web site in relation to the costs incurred.
- Experience-based value (Experience – three items): the experiential aspect of using the Web site.

Table 6.5 provides details of these factors.

Table 6.5. Dimensions of Value Perception

Factor	Alpha	Indicator	Mean	Std Dev	Loading
Quality	0.83	PV1: This Web site has quality offers.	5.45	1.18	0.76
		PV2: This Web site often has special offers that are valuable to me.	5.02	1.38	0.88
Price	0.90	PV3: This Web site offers good value for money.	5.72	1.12	0.82
		PV4: For the prices that I pay at this Web site, I would say that shopping at this site is a good deal.	5.67	1.13	0.84
TimeEff	0.95	PV5: I am able to reduce my shopping time at this Web site, compared to similar sites that I know.	4.98	1.34	0.88
		PV6: I am able to reduce my shopping efforts at this Web site, compared to similar sites that I know.	4.98	1.31	0.88
CostBen	n/a	PV7: The benefits that I receive from using this Web site significantly outweigh the costs.	5.08	1.28	0.85
Experience	0.82	PV9: For me, shopping at this Web site is fun	5.19	1.31	0.74
		PV10: I feel comfortable shopping at this Web site	5.80	1.07	0.84
		PV11: I enjoy visiting this Web site	5.69	1.05	0.78

6.4.5. Commitment

Three items were deleted due to high cross loadings. These include CO1 (I consider myself a loyal customer of this Web site), CO2 (I really like doing business with this company), and CO3 (To me, this company is clearly the best to do business with). Results indicated that a two-factor solution was appropriate. These two factors explain 77.85% of

the observed variance, with both eigenvalues greater than 1. The two dimensions underlying commitment are:

- Attitudinal Predisposition (AttPred) which includes Personal Attachment (PersAttach - two items) and Relative Attitude (RelAtt - two items): the favourable attitudinal bias that a customer has towards the Web site both by itself and in relation to its competitors.
- Relationship Orientation (RelOrient - two items): customer perception of the benefits of a long-term relationship with the retailer, and their willingness to commit themselves to such a relationship.

Details are presented in Table 6.6.

Table 6.6. Dimensions of Commitment

Factor	Alpha	Indicator	Mean	Std Dev	Loading
AttPred	0.85				
- PersAttach		CO4: This is my favourite Web site.	3.81	1.51	0.88
		CO5: I have a sense of belonging to this Web site.	3.93	1.42	0.84
- RelAtt		CO6: I believe that this Web site is better than its competitors.	4.85	1.32	0.76
		CO7: I prefer this Web site to other similar sites.	4.77	1.31	0.68
RelOrient	0.92				
		CO8: I believe I can benefit from a long-term relationship with this company.	5.19	1.14	0.91
		CO9: I am interested in a long-term relationship with this company.	5.23	1.18	0.93

6.4.6. Trust

The EFA indicated that Trust is a single dimensional construct. Table 6.7 provides details of the indicators of Trust.

Table 6.7. Indicators of Trust

Factor	Alpha	Indicator	Mean	Std Dev	Loading
Trust	0.97	TR1: This company has a good reputation. (*)	5.15	1.14	0.78
		TR2: I feel this company can be counted on to do what is right. (*)	5.43	1.07	0.93
		TR3: I feel this company is fair in dealing with me.	5.43	1.05	0.92
		TR4: I feel this company is truthful in dealing with me. (*)	5.44	1.06	0.94
		TR5: I would characterise this company as honest. (*)	5.49	1.05	0.94
		TR6: This company gives me a trustworthy impression.	5.57	0.99	0.93
		TR7: I believe that this company will keep its promises and commitments.	5.57	1.02	0.91
		TR9: The communication I receive from this company is credible. (*)	5.29	1.07	0.79
		TR10: I am confident about this company's integrity. (*)	5.41	1.01	0.87
		TR11: Even though I usually have no contact with anyone from this company, I am sure that what I have requested will be done correctly.	5.45	1.08	0.83
		TR12: I trust that this company will not misuse my personal information.	5.75	1.02	0.67

(*) deleted in Confirmatory Factor Analysis

6.4.7. Safety Perception

Results indicated that only one factor has eigenvalue greater than 1. However, a two-factor solution proved to be more interpretable. One indicator (PR4 – The return/cancellation policies of this company are customer-friendly and fair) was deleted because of high cross loading. The remaining six items form two factors which explain 81.77% of the variance (see Table 6.8). These include:

- Familiarity (Fam - two items): the degree of familiarity that a customer has with buying from the Web site.
- Security (Sec - four items): customer perception of the safety and security in buying from the Web site.

Table 6.8. Dimensions of Safety Perception

Factor	Alpha	Indicator	Mean	Std Dev	Loading
Fam	0.70	PR1: I know this Web site well.	4.87	1.45	0.88
		PR5: It is usually easy for me to make a purchase decision when I use this Web site.	5.51	1.17	0.80
Sec	0.93	PR2: Shopping at this Web site involves little risk.	5.40	1.15	0.88
		PR3: I feel safe in my transactions at this Web site.	5.72	1.06	0.85
		PR6: I am satisfied with the information about security provided on this Web site.	5.62	1.11	0.86
		PR7: I believe that payment information is well protected on this Web site.	5.61	1.09	0.91

6.5. Confirmatory Factor Analysis

As discussed in Chapter 5, the EFA solutions are exploratory by nature because they are based primarily on the statistical relationships between indicators, meaning that the researcher has limited control over the loading of individual indicators on their respective factors. Thus, these solutions are intended only as a guideline concerning the underlying structures of the research constructs which need to be validated using a confirmatory technique (Hair *et al.*, 1995).

A set of measurement models was subsequently developed based on findings from the EFAs. These were then tested using Confirmatory Factor Analysis (CFA). In many cases, the chi-square test did not indicate a good model fit ($p < 0.001$). However, this is commonly found in studies with large sample sizes (e.g., 250 or more) (Bollen, 1989; Segars and Grover, 1993). For this reason, the chi-square statistic is often referred to only as a quick overview of the model fit (Byrne, 2001). Therefore, also taken into consideration were several other major fit indices (see, for example, Bollen (1989); Hair *et al.*, (1995); Klein (1998)). These are presented in Table 6.9.

Table 6.9. Summary of Fit Statistics

Fit measure	Acceptable value
Probability value (p)	>0.05
Normed chi-square (χ^2/df)	1-3
Standardised root mean square residual (SRMR)	<0.10
Goodness-of-fit index (GFI)	>0.90
Adjusted goodness-of-fit index (AGFI)	>0.90
Normed fit index (NFI)	>0.90
Comparative fit index (CFI)	>0.90
Tucker-Lewis index (TLI)	>0.90
Root mean square error of approximation (RMSEA)	<0.08
Hoelter's critical N (at 0.05 significance level) (CN)	200

Source: Compiled from Bollen (1989); Hair *et al.*, (1995); and Klein (1998).

When all or most fit indices of a model did not indicate an acceptable level of fit, the model was modified until the goodness of fit reached an acceptable level. Care was taken to ensure that these modifications were not only statistically significant but, also, conceptually meaningful.

Once the overall fit of a model was considered to be sufficiently robust for further analysis, the performance of individual indicators in the model was assessed. Squared multiple correlations (SMCs) were used as the estimate of indicators' reliability. Arbuckle and Wothke (1999) note that, since the error terms of indicators in a model represent more than just measurement errors, the SMCs serve as an indication of the lower-bound reliability estimate of the corresponding indicator. Hence, indicators with an SMC value of 0.50 or more are often considered to have high reliability.

Additionally, the CFA results also help substantiate the construct validity that was established in the EFA (see Segars and Grover (1993) for a review on different approaches to assess construct validity). Doll *et al.* (1994) suggest that the standard factor loadings of indicators on their factors in measurement models are indicative of the validity of the indicators. Accordingly, indicators loading highly on their respective factors is an indication of convergent validity, while relatively low correlations between latent variables within a measurement model provide evidence of sufficient discriminant validity.

6.5.1. Loyalty

Initial results indicated a relatively poor fit (χ^2 (59) = 295.75; $p < 0.001$; GFI = 0.92; AGFI = 0.88; RMSEA = 0.09). When LO15 was dropped from the model, the fit improved to an acceptable level (χ^2 (48) = 191.42; $p < 0.001$; GFI = 0.95; AGFI = 0.91; RMSEA = 0.07). Further exploration showed that allowing the error terms of LO1 and LO2 to correlate also contributed to a slight improvement in the overall fit (χ^2 (47) = 168.25; $p < 0.001$; GFI =

0.95; AGFI = 0.92; RMSEA = 0.06). Bollen (1989) points out that one of the advantages of CFA, as compared to EFA, is that it allows the identification of correlated measurement errors and thus avoids confounding them with the latent factors, which can potentially lead to ambiguous or misleading solutions. According to Klein (1998), a measurement error correlation suggests that the two indicators measure something in common that is not represented in the model, and should only be accepted if logically justified. Considering that these two indicators are both concerned with the same attribute (purchasing behaviour), allowing their error terms to correlate seems to be both statistically acceptable and conceptually meaningful.

As shown in Figure 6.2, most indicators load highly on their respective factors, while the correlations between the latent variables are relatively low. This provides evidence of convergent validity and discriminant validity (Segars and Grover, 1993). SMC values of the indicators, with the exception of LO20, also point to a good level of reliability. Details of relevant statistics are presented in Tables 6.10a, 6.10b and 6.10c.

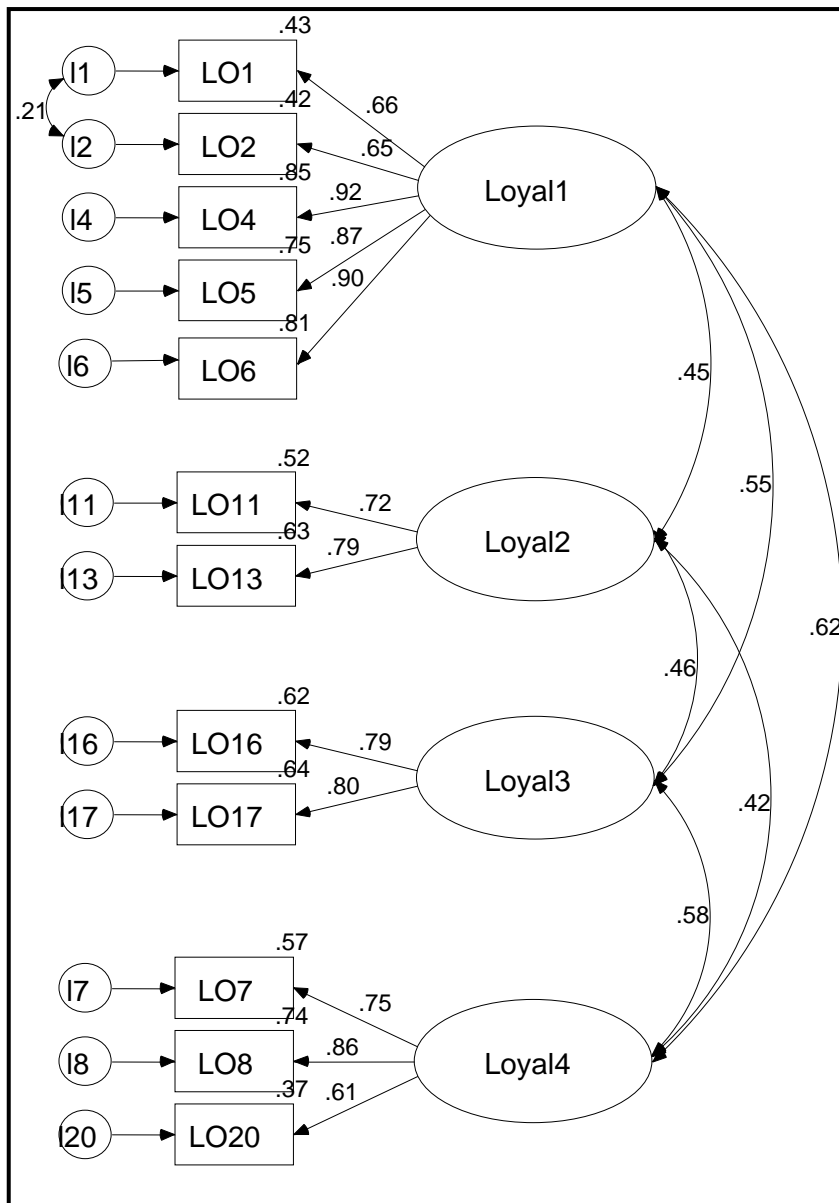


Figure 6.2. Measurement Model for Customer Loyalty

Table 6.10a. Fit Statistics for Loyalty

Fit Statistics	
Chi-square (χ^2)	168.25
Degree of freedom (df)	47
Probability value (p)	0.001
Normed chi-square (χ^2/df)	3.6
Standardised root mean square residual (SRMR)	0.04
Goodness-of-fit index (GFI)	0.95
Adjusted goodness-of-fit index (AGFI)	0.92
Normed fit index (NFI)	0.95
Comparative fit index (CFI)	0.97
Tucker-Lewis index (TLI)	0.96
Root mean square error of approximation (RMSEA)	0.06
Hoelter's critical N (at 0.05 significance level) (CN)	210

Table 6.10b. Parameter Estimates for Loyalty

Parameter estimates				
Path	Regression weight	C.R.	P	Standardised Regression weight
Loyal1 → LO1	1.136	16.957	0.001	.657
Loyal1 → LO2	.627	16.576	0.001	.646
Loyal1 → LO4	1.504	28.023	0.001	.924
Loyal1 → LO5	1.333	25.306	0.001	.869
Loyal1 → LO6	1.299	26.838	0.001	.900
Loyal2 → LO11	1.096	14.330	0.001	.722
Loyal2 → LO13	1.266	15.276	0.001	.791
Loyal3 → LO16	1.039	18.262	0.001	.788
Loyal3 → LO17	.926	18.566	0.001	.802
Loyal4 → LO7	.826	18.971	0.001	.754
Loyal4 → LO8	1.144	22.364	0.001	.860
Loyal4 → LO20	.779	14.487	0.001	.606

Table 6.10c. Correlations and SMCs for Loyalty

	Correlation	SMC
Loyal1 ↔ Loyal2	.450	
Loyal1 ↔ Loyal3	.548	
Loyal1 ↔ Loyal4	.619	
Loyal2 ↔ Loyal3	.455	
Loyal2 ↔ Loyal4	.419	
Loyal3 ↔ Loyal4	.583	
LO6		.811
LO5		.754
LO4		.853
LO20		.367
LO7		.569
LO8		.739
LO16		.621
LO17		.643
LO11		.521
LO13		.626
LO1		.432
LO2		.417

6.5.2. Service Quality

Initial outputs indicated that the model fit was not adequate (χ^2 (73) = 636.80; $p < 0.001$; GFI = 0.86; AGFI = 0.79; RMSEA = 0.12). However, the fit indices strengthened significantly to represent a reasonably good fit (see Table 6.11a), when two items (SQ3 and SQ10) were removed and when the error terms of SQ5 and SQ7, as well as those of SQ13 and SQ14 were allowed to correlate. Conceptually, the exclusion of these two indicators did not have any significant impact on the interpretability or meaning of the solution, while the correlations between the two pairs of error terms were meaningful given the relationships between the respective indicators. This is illustrated in Figure 6.3.

The discriminant and convergent validity of the factors are generally high, as are the reliability scores of individual indicators (see Tables 6.11b and 6.11c).

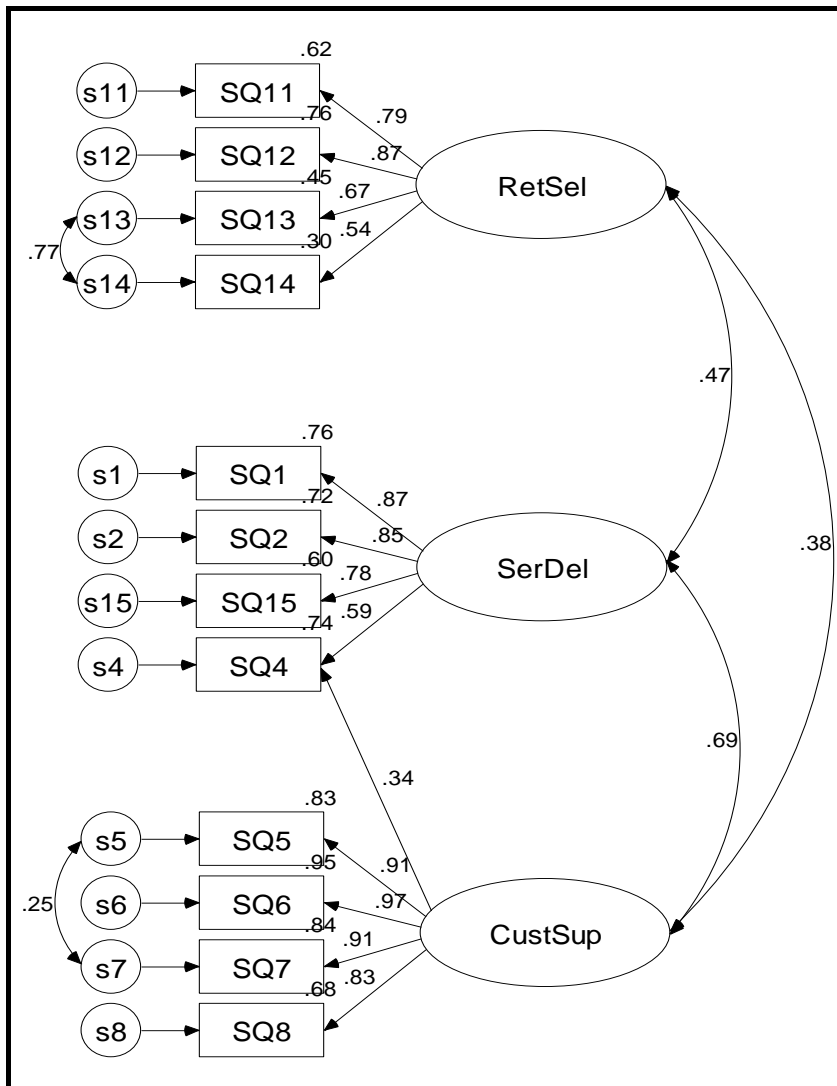


Figure 6.3. Measurement Model for Service Quality

Table 6.11a. Fit Statistics for Service Quality

Fit Statistics	
Chi-square (χ^2)	159.69
Degree of freedom (df)	48
Probability value (p)	0.001
Normed chi-square (χ^2/df)	3.3
Standardised root mean square residual (SRMR)	0.04
Goodness-of-fit index (GFI)	0.96
Adjusted goodness-of-fit index (AGFI)	0.93
Normed fit index (NFI)	0.97
Comparative fit index (CFI)	0.98
Tucker-Lewis index (TLI)	0.97
Root mean square error of approximation (RMSEA)	0.07
Hoelter's critical N (at 0.05 significance level) (CN)	225

Table 6.11b. Parameter Estimates for Service Quality

Path	Regression weight	C.R.	P	Standardised Regression weight
RetSel → SQ14	.709	12.738	0.001	.545
RetSel → SQ13	.779	16.472	0.001	.670
RetSel → SQ12	.946	22.723	0.001	.872
RetSel → SQ11	.913	20.052	0.001	.788
SerDel → SQ4	.678	14.650	0.001	.593
SerDel → SQ15	.806	20.932	0.001	.776
SerDel → SQ2	.987	23.866	0.001	.847
SerDel → SQ1	.960	24.847	0.001	.869
CustSup → SQ8	.946	23.668	0.001	.827
CustSup → SQ7	.972	27.765	0.001	.914
CustSup → SQ6	1.076	31.159	0.001	.975
CustSup → SQ5	.959	27.559	0.001	.910
CustSup → SQ4	.387	9.021	0.001	.339

Table 6.11c. Correlations and SMCs for Service Quality

	Correlation	SMC
RetSel ↔ SerDel	.472	
SerDel ↔ CustSup	.689	
RetSel ↔ CustSup	.384	
SQ5		.829
SQ6		.950
SQ7		.836
SQ8		.684
SQ1		.756
SQ2		.718
SQ15		.602
SQ4		.744
SQ11		.622
SQ12		.760
SQ13		.449
SQ14		.297

6.5.3. Web site Quality

While most major indices indicated a reasonable fit (χ^2 (43) = 184.16; $p < 0.001$; GFI = 0.95; AGFI = 0.90; RMSEA = 0.08), some values ($\chi^2/\text{df} = 4.28$; Hoelter's critical-N = 178) suggested that improvements were desirable. Further exploration indicated that allowing the error terms of TQ4 and TQ5 to correlate helped improve the fit to a more comfortable level (χ^2 (42) = 113.07; $\chi^2/\text{df} = 2.69$ $p < 0.001$; GFI = 0.97; AGFI = 0.94; RMSEA = 0.06; Hoelter's critical-N = 283). Considering that both indicators are concerned with the way information is presented on a Web site, this correlation seemed to be both statistically and theoretically meaningful. Hence, the model was adjusted accordingly (Figure 6.4). Table 6.12a presents the fit statistics of the modified measurement model. As can be viewed in Table 6.12b, the standardised regression

weights of all indicators, except for WQ6, are quite high, while the correlations between latent factors are relatively low (Table 6.12c), which indicates good construct validity. The SMC values of all indicators are well above the 0.50 level, which offers evidence of a satisfactory reliability level.

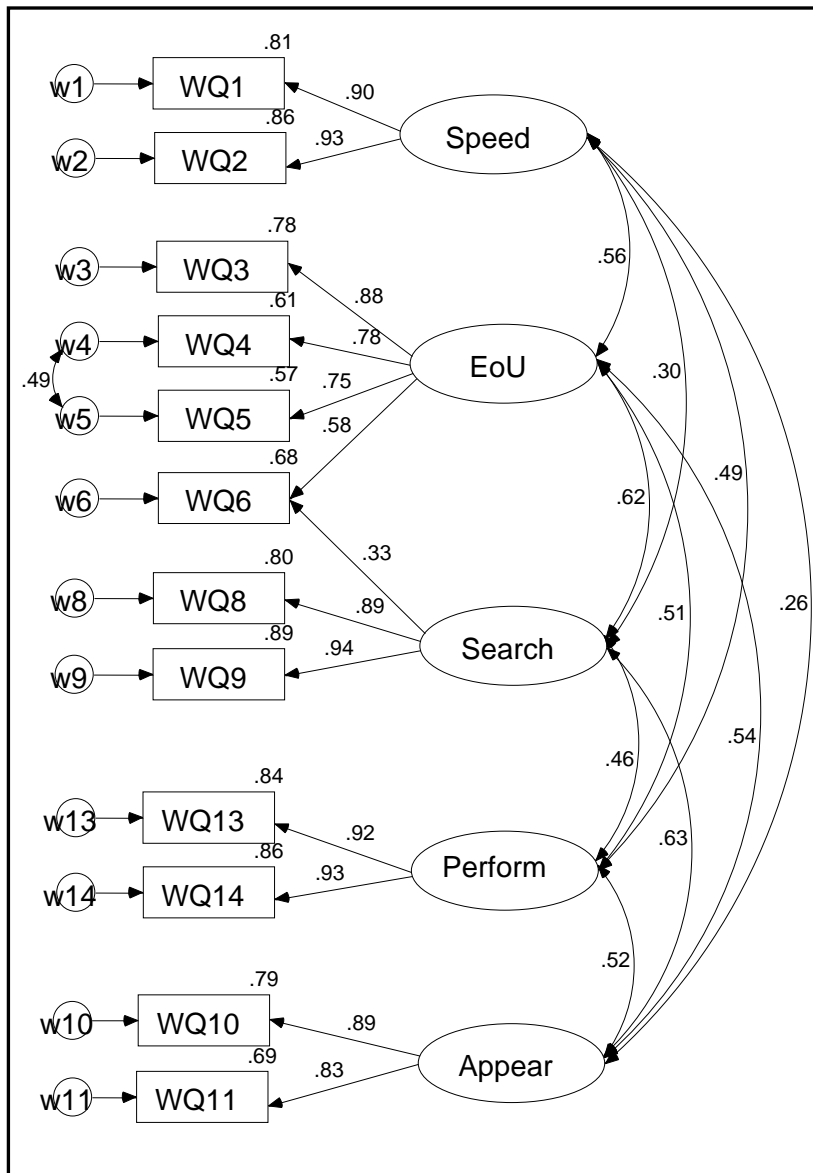


Figure 6.4. Measurement Model for Web Site Quality

Table 6.12a. Fit Statistics for Web Site Quality

Fit Statistics	
Chi-square (χ^2)	113.07
Degree of freedom (df)	42
Probability value (p)	0.001
Normed chi-square (χ^2/df)	2.69
Standardised root mean square residual (SRMR)	0.02
Goodness-of-fit index (GFI)	0.97
Adjusted goodness-of-fit index (AGFI)	0.94
Normed fit index (NFI)	0.98
Comparative fit index (CFI)	0.99
Tucker-Lewis index (TLI)	0.98
Root mean square error of approximation (RMSEA)	0.06
Hoelter's critical N (at 0.05 significance level) (CN)	283

Table 6.12b. Parameter Estimates for Web site Quality

Parameter estimates						
Path			Regression weight	C.R.	P	Standardised Regression weight
Speed	→	WQ1	1.068	24.321	0.001	.900
Speed	→	WQ2	1.127	25.353	0.001	.929
EoU	→	WQ3	.931	24.765	0.001	.884
EoU	→	WQ4	.704	20.573	0.001	.778
EoU	→	WQ5	.661	19.648	0.001	.754
EoU	→	WQ6	.695	13.852	0.001	.581
Search	→	WQ6	.394	8.330	0.001	.329
Search	→	WQ8	1.243	25.693	0.001	.893
Search	→	WQ9	1.199	27.996	0.001	.944
Perform	→	WQ13	1.025	25.779	0.001	.918
Perform	→	WQ14	.998	26.279	0.001	.930
Appear	→	WQ10	1.157	23.387	0.001	.890
Appear	→	WQ11	1.115	21.382	0.001	.828

Table 6.12c. Correlations and SMCs for Web Site Quality

	Correlation	SMC
EoU ↔ Speed	.555	
Speed ↔ Search	.305	
Speed ↔ Perform	.490	
Speed ↔ Appear	.263	
EoU ↔ Search	.619	
EoU ↔ Perform	.513	
EoU ↔ Appear	.542	
Search ↔ Perform	.463	
Search ↔ Appear	.631	
Perform ↔ Appear	.516	
WQ6		.683
WQ11		.685
WQ10		.792
WQ14		.865
WQ13		.842
WQ9		.891
WQ8		.798
WQ5		.568
WQ4		.605
WQ3		.782
WQ2		.863
WQ1		.811

6.5.4. Value Perception

All major indices indicated a good model fit ($\chi^2 (26) = 60.25$; $p < 0.001$; GFI = 0.98; AGFI = 0.96; RMSEA = 0.05) (see Table 6.13a for details). Convergent and discriminant validity, as well as reliability scores, are also high (see Tables 6.13b and 6.13c). Therefore, no modifications to the model were considered necessary. This is illustrated in Figure 6.5.

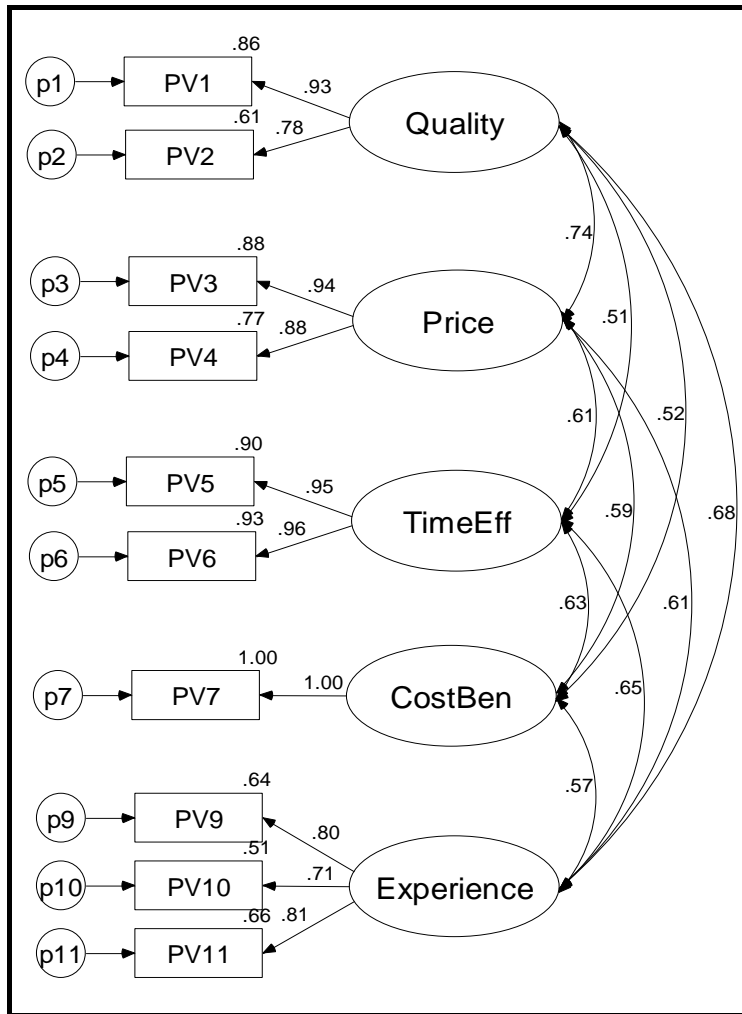


Figure 6.5. Measurement Model for Value Perception

Table 6.13a. Fit Statistics for Value Perception

Fit Statistics	
Chi-square (χ^2)	60.25
Degree of freedom (df)	26
Probability value (p)	0.001
Normed chi-square (χ^2/df)	2.3
Standardised root mean square residual (SRMR)	0.02
Goodness-of-fit index (GFI)	0.98
Adjusted goodness-of-fit index (AGFI)	0.96
Normed fit index (NFI)	0.99
Comparative fit index (CFI)	0.99
Tucker-Lewis index (TLI)	0.99
Root mean square error of approximation (RMSEA)	0.05
Hoelter's critical N (at 0.05 significance level) (CN)	357

Table 6.13b. Parameter Estimates for Value Perception

Parameter estimates					
Path		Regression weight	C.R.	P	Standardised Regression weight
Quality	→ PV1	1.083	25.641	0.001	.925
Quality	→ PV2	1.068	20.581	0.001	.783
Price	→ PV3	1.047	27.576	0.001	.936
Price	→ PV4	.993	25.064	0.001	.879
TimeEff	→ PV5	1.271	28.881	0.001	.948
TimeEff	→ PV6	1.260	29.709	0.001	.963
CostBen	→ PV7	1.273	33.166	0.001	1.000
Experience	→ PV9	1.039	20.976	0.001	.797
Experience	→ PV10	.776	18.081	0.001	.714
Experience	→ PV11	.853	21.611	0.001	.815

Table 6.13c. Correlations and SMCs for Value Perception

	Correlation	SMC
Quality ↔ Price	.743	
Quality ↔ TimeEff	.512	
Quality ↔ CostBen	.520	
Price ↔ TimeEff	.608	
Price ↔ CostBen	.591	
TimeEff ↔ CostBen	.631	
CostBen ↔ Experience	.571	
TimeEff ↔ Experience	.646	
Price ↔ Experience	.615	
Quality ↔ Experience	.676	
PV11		.664
PV10		.510
PV9		.636
PV7		1.000
PV5		.898
PV6		.928
PV3		.876
PV4		.773
PV1		.856
PV2		.613

6.5.5. Commitment

Initial outputs indicated that the model did not adequately explain the data (χ^2 (8) = 180.47; $p < 0.001$; GFI = 0.89; AGFI = 0.72; RMSEA = 0.20). However, when the error terms of the two Personal Attachment items, as well as those of the two Relative Attitude items, were allowed to correlate, the fit indices improved significantly to represent a good fit (χ^2 (6) = 22.74; $p = 0.001$; GFI = 0.99; AGFI = 0.95; RMSEA = 0.07) (Table 6.14a). Considering that these two pairs of indicators are intended to measure two different

aspects of the same construct, allowing the error terms of each pair to correlate seemed to be both statistically acceptable and theoretically meaningful. In addition, reliability and validity values of the modified version of the model are also excellent (see Tables 6.14b and 6.14c). Therefore, this model was retained (see Figure 6.6).

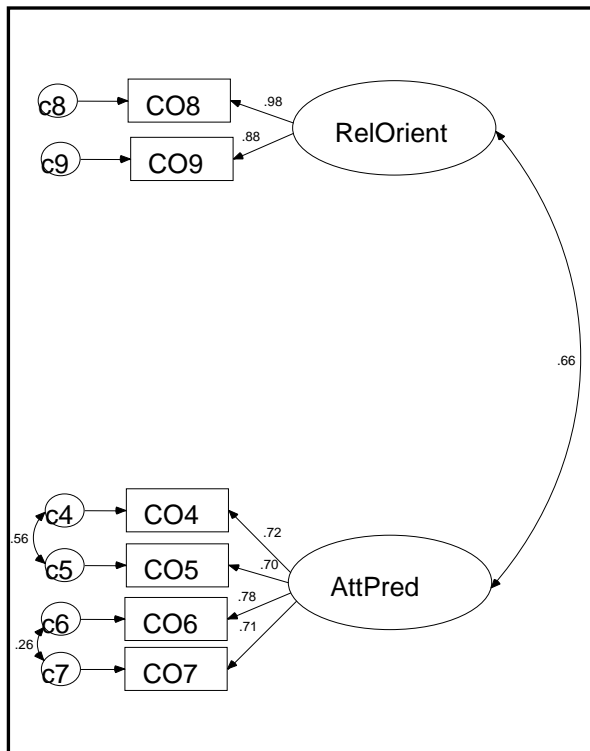


Figure 6.6. Measurement Model for Commitment

Table 6.14a. Fit Statistics for Commitment

Fit Statistics	
Chi-square (χ^2)	22.74
Degree of freedom (df)	6
Probability value (p)	0.001
Normed chi-square (χ^2/df)	3.8
Standardised root mean square residual (SRMR)	0.02
Goodness-of-fit index (GFI)	0.99
Adjusted goodness-of-fit index (AGFI)	0.95
Normed fit index (NFI)	0.99
Comparative fit index (CFI)	0.99
Tucker-Lewis index (TLI)	0.98
Root mean square error of approximation (RMSEA)	0.07
Hoelter's critical N (at 0.05 significance level) (CN)	305

Table 6.14b. Parameter Estimates for Commitment

Parameter estimates					
Path		Regression weight	C.R.	P	Standardised Regression weight
RelOrient	→ CO9	1.043	24.156	0.001	.884
RelOrient	→ CO8	1.115	27.873	0.001	.978
AttPred	→ CO7	.918	15.637	0.001	.709
AttPred	→ CO6	1.013	17.683	0.001	.776
AttPred	→ CO5	1.005	16.068	0.001	.704
AttPred	→ CO4	1.084	16.491	0.001	.718

Table 6.14c. Correlation and SMCs for Commitment

	Correlation	SMC
RelOrient ↔ AttPred	.665	
CO4		.516
CO5		.496
CO6		.602
CO7		.503
CO8		.956
CO9		.781

6.5.6. Trust

Initial fit statistics showed that the model did not fit well ($\chi^2 (44) = 396.69$; $p < 0.001$; GFI = 0.83; AGFI = 0.74; RMSEA = 0.16). Potentially, this could be due to the large number of observed variables (11 items) that describe the latent variable. Therefore, items that were considered to have low face validity and/or be similar in meaning with other indicators were progressively removed until the model fit improved to an acceptable level. This procedure resulted in a five-indicator measurement model with a good fit ($\chi^2 (5) = 13.07$; $p = 0.023$; GFI = 0.99; AGFI = 0.97; RMSEA = 0.05) that represents a sound explanation of the characteristics of Trust as usually depicted in the literature. The measurement model for Trust is presented in Figure 6.7. Since this model only has a single latent variable, discriminant validity is not an issue. As shown in Tables 6.15b and 6.15c, convergent validity and reliability values are generally well above average.

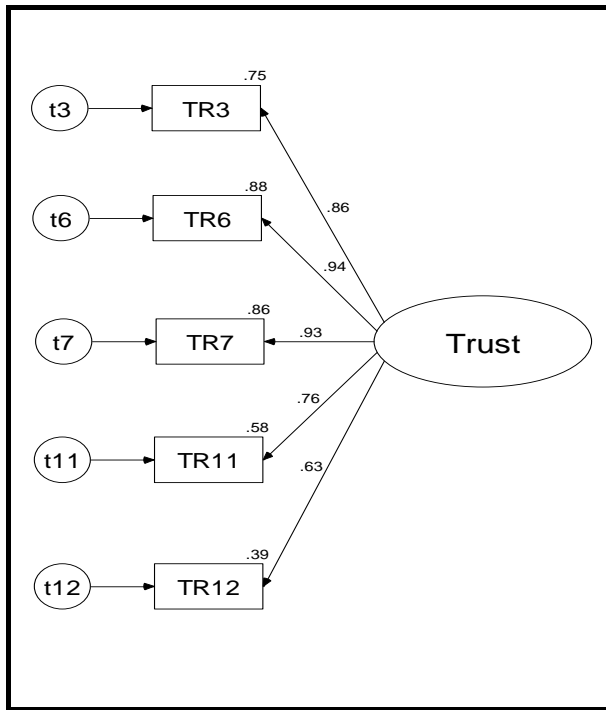


Figure 6.7. Measurement Model for Trust

Table 6.15a. Fit Statistics for Trust

Fit Statistics	
Chi-square (χ^2)	13.07
Degree of freedom (df)	5
Probability value (p)	0.023
Normed chi-square (χ^2/df)	2.6
Standardised root mean square residual (SRMR)	0.01
Goodness-of-fit index (GFI)	0.99
Adjusted goodness-of-fit index (AGFI)	0.97
Normed fit index (NFI)	0.99
Comparative fit index (CFI)	0.99
Tucker-Lewis index (TLI)	0.99
Root mean square error of approximation (RMSEA)	0.05
Hoelter's critical N (at 0.05 significance level) (CN)	467

Table 6.15b. Parameter Estimates for Trust

Parameter estimates						
Path			Regression weight	C.R.	P	Standardised Regression weight
Trust	→	TR3	.900	25.246	0.001	.865
Trust	→	TR6	.961	28.912	0.001	.937
Trust	→	TR7	.965	28.261	0.001	.925
Trust	→	TR11	.834	20.856	0.001	.763
Trust	→	TR12	.644	16.055	0.001	.627

Table 6.15c. SMCs for Trust

	SMC
TR3	.748
TR6	.879
TR7	.856
TR11	.582
TR12	.393

6.5.7. Safety Perception

Initially, some statistics indicated a relatively poor fit (χ^2 (8) = 51.14; $p < 0.001$; GFI = 0.97; AGFI = 0.92; RMSEA = 0.10). However, all indices improved significantly to a very good fit when the error terms of PR2, PR6 and PR7 were allowed to correlate (χ^2 (5) = 9.08; $p = 0.106$; GFI = 0.99; AGFI = 0.98; RMSEA = 0.04). Since these indicators represent the different risk alleviation attributes in online shopping, the correlations between their error terms were considered to be conceptually justifiable and, therefore, the model was modified accordingly (see Figure 6.8). As can be seen in Tables 6.16b and 6.16c, the refined model also performs quite well in terms of its reliability and validity statistics.

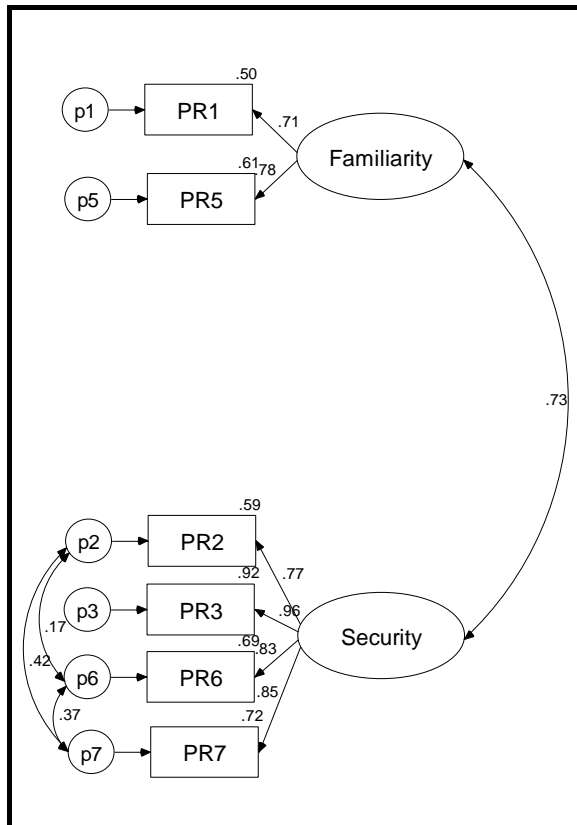


Figure 6.8. Measurement Model for Safety Perception

Table 6.16a. Fit Statistics for Safety Perception

Fit Statistics	
Chi-square (χ^2)	9.08
Degree of freedom (df)	5
Probability value (p)	0.106
Normed chi-square (χ^2/df)	1.82
Standardised root mean square residual (SRMR)	0.01
Goodness-of-fit index (GFI)	0.99
Adjusted goodness-of-fit index (AGFI)	0.98
Normed fit index (NFI)	0.99
Comparative fit index (CFI)	0.99
Tucker-Lewis index (TLI)	0.99
Root mean square error of approximation (RMSEA)	0.04
Hoelter's critical N (at 0.05 significance level) (CN)	671

Table 6.16b. Parameter Estimates for Safety Perception

Parameter estimates				
Path	Regression weight	C.R.	P	Standardised Regression weight
Familiarity → PR5	.918	17.782	0.001	.779
Familiarity → PR1	1.017	16.196	0.001	.706
Security → PR7	.929	22.854	0.001	.848
Security → PR6	.914	22.170	0.001	.830
Security → PR3	1.014	27.198	0.001	.957
Security → PR2	.885	19.901	0.001	.767

Table 6.16c. Correlations and SMCs for Safety Perception

	Correlation	SMC
Familiarity <--> Security	.725	
PR2		.589
PR3		.916
PR6		.689
PR7		.720
PR1		.498
PR5		.606

6.6. Structural Model Estimation

Having established and confirmed the dimensions of all relevant constructs, the focus of the analysis then moved to assessing the relationships among these constructs as proposed in the research model. For this purpose, the factor score weights obtained from the CFA results were used to calculate composite scores for all latent variables. This helped reduce the number of variables in the structural model to a more manageable size. These were then used to build the structural model as depicted in Figure 6.9.

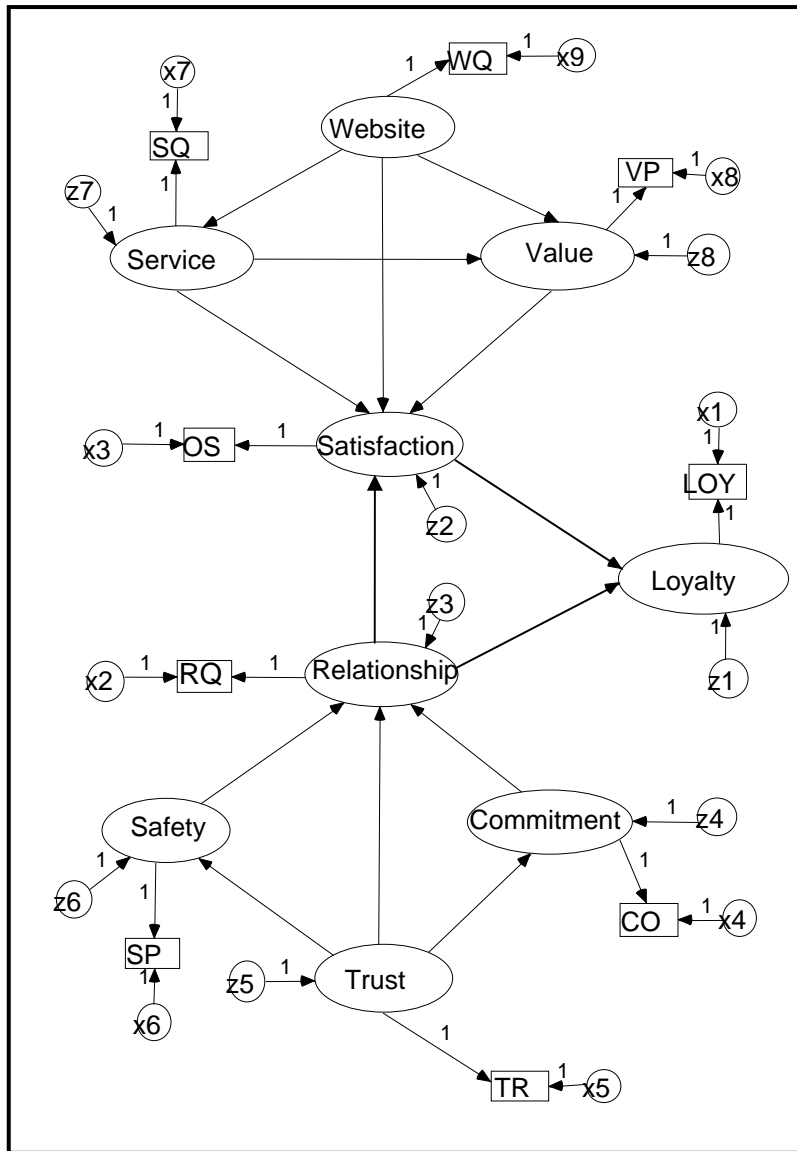


Figure 6.9. Proposed Structural Model

While initial results indicated good support for all hypothesised relationships, the statistical outputs also pointed to a very poor overall model fit ($\chi^2(21) = 1200.25$; $p < 0.001$; GFI = 0.74; AGFI = 0.49; RMSEA = 0.32). However, this was not entirely unexpected considering that the conceptual model was based largely on findings from studies that were conducted in the offline context. Since the original model did not fit the data set, the focus of the analysis turned to exploring the relationships among the research constructs as implied by the data. The model was then modified accordingly, with the aim of

developing an alternative model that is theoretically meaningful and, also, has a reasonable statistical correspondence to the collected data set (Klein, 1998).

The modification indices suggested the addition of a series of regression paths. However, only some of the suggested paths are conceptually meaningful and, thus, were considered in the re-specification of the structural model. To different extents, these relationships have been proposed and/or tested in prior research. Therefore, while the addition of these parameters reduces the parsimony of the proposed model, it is consistent with the existing literature and thus is justifiable.

All together, ten new parameters were progressively added to the structural model, which resulted in an acceptable level of fit ($\chi^2(12) = 64.51$; $p < 0.001$; GFI = 0.98; AGFI = 0.91; RMSEA = 0.09). These parameters are listed in Table 6.17. The parameter estimates of the modified model were then used to test the hypothesised relationships again. As shown in Table 6.18, all hypotheses were supported by the data, except for H1b and H6c. In the interest of scientific parsimony, these two regression paths were removed from the model (Byrne, 2001). This contributed to a slight improvement in the overall fit of the final model (see Table 6.19), and caused minor changes to some parameter estimates (see Figure 6.10).

Table 6.17: List of Regression Paths added to the Proposed Structural Model

Path	β	C.R	P	Description of relationship	Reference
Service → Safety	0.338	7.471	0.001	Service quality positively influences perception of online safety	Chen and Chang (2005), Sweeney <i>et al.</i> (1999)
Service → Trust	0.756	27.045	0.001	Service quality positively influences trust	Shankar <i>et al.</i> (2002)
Service → Relationship	0.418	9.449	0.001	Service quality positively influences relationship quality	Wong and Sohal (2002b), Bhatti <i>et al.</i> (2001)
Web site → Safety	0.303	9.604	0.001	Web site quality positively influences perception of safety	Wolfenbarger and Gilly (2003)
Safety → Value	0.290	6.566	0.001	Safety perception positively influences value perception	Sweeney <i>et al.</i> (1999)
Value → Commitment	0.376	11.125	0.001	Value perception positively influences commitment	Morgan and Hunt (1994)
Value → Loyalty	0.226	5.974	0.001	Value perception positively influences loyalty	Parasuraman and Grewal (2000), Anderson and Srinivasan (2003)
Safety → Satisfaction	0.241	7.038	0.001	Safety perception positively influences satisfaction	Szymanski and Hise (2000)
Service → Loyalty	0.142	3.446	0.001	Service quality positively influences loyalty	Cronin <i>et al.</i> (2000), Wong and Sohal (2003), Zeithaml <i>et al.</i> (1996)
Commitment → Loyalty	0.490	13.474	0.001	Commitment positively influences loyalty	Bowen and Shoemaker (1998), Amine (1998), Morgan and Hunt (1994)

Table 6.18. Hypothesis Testing Results

	Regression path	Standardised Regression weight	C.R	P	Result
H1a	Relationship → Loyalty	0.087	2.073	0.038	Supported
H1b	Satisfaction → Loyalty	-0.001	-0.016	0.987	<i>Rejected</i>
H2	Relationship → Satisfaction	0.063	1.998	0.046	Supported
H3a	Value → Satisfaction	0.185	6.017	0.001	Supported
H3b	Service → Satisfaction	0.183	5.179	0.001	Supported
H3c	Web site → Satisfaction	0.385	13.141	0.001	Supported
H4	Web site → Service	0.450	11.827	0.001	Supported
H5a	Service → Value	0.086	2.064	0.039	Supported
H5b	Web site → Value	0.443	12.174	0.001	Supported
H6a	Commitment → Relationship	0.315	9.531	0.001	Supported
H6b	Trust → Relationship	0.174	4.030	0.001	Supported
H6c	Safety → Relationship	0.020	0.537	0.592	<i>Rejected</i>
H7	Trust → Commitment	0.443	13.095	0.001	Supported
H8	Trust → Safety	0.269	6.259	0.001	Supported

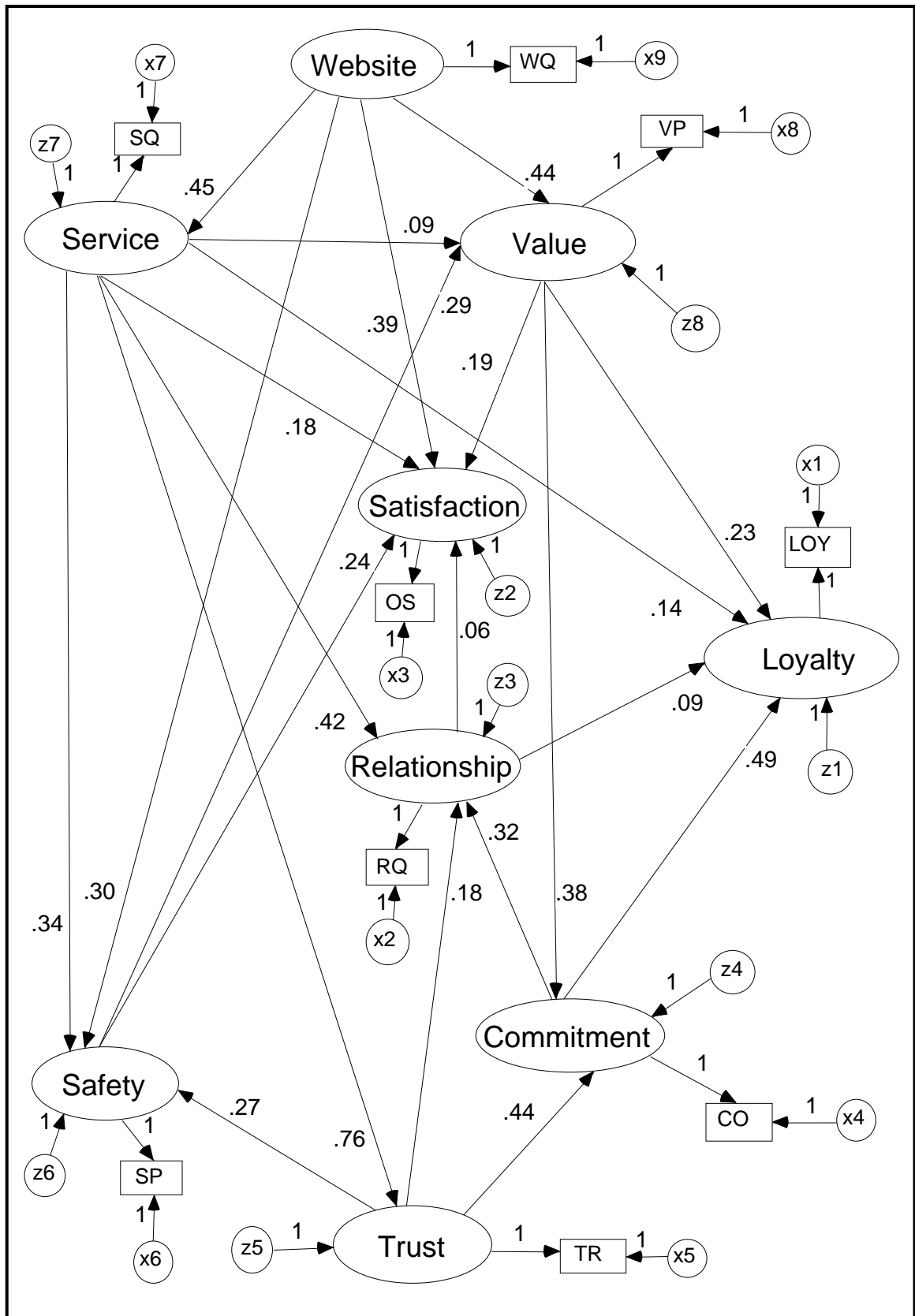


Figure 6.10. Final Structural Model

Table 6.19. Fit Statistics for the Final Structural Model

Fit Statistics	
Chi-square (χ^2)	64.79
Degree of freedom (df)	14
Probability value (p)	0.001
Normed chi-square (χ^2/df)	4.6
Standardised root mean square residual (SRMR)	0.03
Goodness-of-fit index (GFI)	0.98
Adjusted goodness-of-fit index (AGFI)	0.92
Normed fit index (NFI)	0.98
Comparative fit index (CFI)	0.99
Tucker-Lewis index (TLI)	0.97
Root mean square error of approximation (RMSEA)	0.08
Hoelter's critical N (at 0.05 significance level) (CN)	202

6.7. Conclusion

In general, the measurement scales developed for the research constructs in this study have performed well, with few indicators being removed from the analysis. While the proposed structural model was not supported by the data, the modifications necessary to achieve an acceptable model fit were conceptually meaningful. Most hypothesised relationships were supported. To this end, the modified model, albeit exploratory by nature, provides numerous important insights into possible relationships among these constructs within an online retailing context. The next chapter will elaborate on these insights and further discuss their implications for marketing theory and practice.

Chapter 7 - Research Findings

7.1. Introduction

This chapter provides an interpretation of the statistical outputs and presents the research findings. This will be presented in two main sections. The first section is concerned with the dimensions of the multi-indicator research constructs established in the factor analyses. Specifically, it details the attributes of each dimension, and further elaborates on how the nature of a construct is reflected in its dimensionality and in relation to what has been described in prior research.

The second section delves into the structural relationships between these constructs, particularly the relationships between e-loyalty and the other variables. In addition, it identifies the main reasons for the poor fit between the proposed model and the collected data set, and provides justification for the model building approach adopted to achieve a satisfactory model fit.

7.2. Research Findings

7.2.1. The Research Constructs

7.2.1.1 Customer loyalty

Results of the data analysis confirm that many types of consumer behaviour typically attributed to customer loyalty in the traditional, offline context can also be found in the Web-based environment. These results are partially consistent with findings from prior research. For example, the identification of Loyall was consistent with Zeithaml *et al.*'s (1996), which showed that behaviours such as giving preference to a firm and providing word-of-mouth recommendation were attributes of the same factor.

However, while the analytical outcomes confirm that customer loyalty manifests itself in many forms of consumer behaviour, it also indicates that e-loyalty is not simply a

composite of attributes but, rather, a multi-dimensional construct in its own right. Indeed, the discriminant and convergent validity of the measurement scale, as well as the distinct differences in meaning between different factors, suggest that loyalty is more appropriately represented as multiple factors.

Specifically, Loyal1 is comprised of behaviours that are most commonly cited as indicators of customer loyalty (i.e., repurchase behaviour and word-of-mouth communication). While these may be regarded as the most prominent and beneficial loyal behaviours, they could be rather unreliable as evidence of loyalty because they can also stem from customer satisfaction (Mittal and Kamakura, 2001; Söderlund, 1998). Hence, it is important to consider other dimensions of loyalty that may be more indicative of the underlying nature of consumer behaviour. Loyal2 is a reflection of the level of attachment that loyal customers feel towards their retailers, which manifests itself through a reluctance to do business with alternative retailers, and a willingness to overcome obstacles (such as higher prices) in order to continue buying from their firms. Loyal3 accommodates the willingness of customers to adjust their patterns of consumption in favour of the retailer's range of offerings. Finally, Loyal4 is evidence of customer willingness to move beyond a pure buyer-seller relationship, and to engage in partner-like behaviours (e.g., tolerating mistakes and providing feedback). Arguably, this could be said to be an indication that the customers actually care about the long-term success of the retailer. Hence, Loyal4 represents the degree of customer involvement in their relationship with the retailer.

Thus, Loyal1, Loyal2 and Loyal3 are concerned with Consumption and Advocacy, or behaviours that are supportive of the Web site (e.g., repurchase patterns, repurchase intention, and word-of-mouth recommendation). Loyal4, on the other hand, refers to partner-like behaviours that may not bring immediate benefits to the customers, but are

constructive to the firm's long-term success (e.g., offering suggestions for improvement and willingness to tolerate mistakes). Hence, Loyal4 can be termed Relationship Involvement.

In summary, these findings confirm the existence and benefits of customer loyalty in an online retailing context. More importantly, the findings show how e-loyalty manifests itself in multiple ways, some of which may not be readily observable. Indeed, while repurchase behaviour and word-of-mouth referrals are often regarded as the most prominent indicators of customer loyalty, this study shows that this construct has more subtle indicators. For example, loyal customers are also likely to be prepared to engage in actions that can contribute to a firm's long-term success, such as providing testimonials and/or suggestions for improvement, and giving the firm a second chance when mistakes are made. In this regard, results of the factor analysis offer important insights into the conceptualisation and operationalisation of customer loyalty.

7.2.1.2 Service quality

Results of the data analysis indicate that service quality can be considered in relation to the three main stages of a typical shopping experience. These include Retail Selection, Service Delivery and Customer Support. Retail Selection is related only to the Web-based retail service provision, while Service Delivery and Customer Support are linked to services provided to retail shoppers through both online and offline channels.

Accordingly, Internet shoppers initially evaluate retail service quality through the range of products or services featuring on a retailer's Web site (Retail Selection). However, the nature of online retailing means that shoppers cannot sample the choices on offer, but have to rely on different types of written descriptions and/or graphic images provided on the Web site to make their purchase decisions. Therefore, customer perception of service

quality at this stage is also a function of their satisfaction with the quality and quantity of the supplied information on available choices.

Stage Two (Service Delivery) begins once an online purchase has been made and the retailer fulfils its order. Service quality at this stage is judged not only by the outcome quality (i.e., whether a delivery is made or not) but, also, through the process of order fulfilment (i.e., whether the company performs its service seamlessly and professionally). In addition, online shoppers evaluate service quality through a retailer's willingness to accommodate their inputs into the service process (i.e., the retailer's responsiveness to their requests). Importantly, it is at this stage that consumers are likely to form an overall perception of the firm as a service provider.

Stage Three (Customer Support) is concerned with the quality of customer assistance provided during and after a shopping event. Service quality is, again, reflected through a retailer's responsiveness to customer requests and, in addition, its willingness and ability to solve customer problems. Since online shoppers who have special requirements or have experienced problems are likely to require assistance from service workers, consumer perception of service quality at this stage is also a function of their perception of the ease of access to human customer support provided by the retailer. Clearly, not all consumers experience problems and/or require special assistance in their Internet shopping. Therefore, not all Internet shoppers evaluate service quality through this stage. This helps explain the previous indication that online shoppers, in general, form an overall evaluation of service quality in the second, rather than third, stage of their shopping cycle.

A close examination of the statistical relationships between the three underlying dimensions of service quality offers support for the conceptual soundness of the factor analysis solution. Retail Selection is specific to a retail setting, and is concerned only with what appears on a retail Web site. Service Delivery and Customer Support, on the other

hand, are dimensions of service quality that can also be found in many other service settings, and are related to the “softer” components of service quality (i.e., a service provider’s ability and flexibility in meeting customer requirements). The close relationship between Service Delivery and Customer Support is statistically supported through the strong correlation between these two constructs ($r = 0.69$), compared to the significantly weaker correlations between either construct with Retail Selection (0.47 and 0.38 respectively).

7.2.1.3. Web site quality

Results of the statistical analysis have been quite consistent with prior research, identifying the main dimensions of Web site quality as Performance, Speed, Ease of Use, Search, and Appearance. Conceptually, these five factors seem to reflect two major aspects of a Web site, namely, the site’s functioning ability (i.e., whether it operates quickly and reliably) and its design (i.e., its features and appearance).

Specifically, Speed and Performance represent the functioning ability of a Web site which can be readily perceived by its users irrespective of personal preferences and technical skills. On the other hand, Appearance, Search, and Ease of Use are components of Web design, the “softer” aspect of Web site quality that may be more difficult to objectively quantify but, nonetheless, are bound to have a significant impact on consumers’ experience with the site. While there are no distinct patterns in the correlations between these first-order factors that provide statistical support for the possible existence of a two second-order factor solution, this interpretation seems to be quite logical and parsimonious from a theoretical standpoint.

Accordingly, Web design refers to both the overall aesthetics of a Web site and its specific features. Thus, Appearance is concerned not only with how a Web site looks but, also, with the usefulness of any pictures and/or graphic designs that the site features. In

addition, to the extent that a Web site is an information storage and retrieval tool, consumer perception of Web design is also affected by the degree to which a site enables its users to search for their desired information with ease. Hence, a Web site that offers sufficient and effective search functions is more likely to be considered well-designed. Importantly, consumers evaluate Web site quality not only through the ease with which they can locate information but, also, through the ease with which they can utilise such information. Therefore, the way information is presented on a Web site plays an important role in forming consumer perception of Ease of Use and, subsequently, Web design quality. To this end, information presented in a way that is easy for shoppers to read and understand can make an important contribution to the shoppers' perception of overall Web site quality. In general, these factors primarily contribute to enable the site's users to achieve their goals with minimum effort.

On the other hand, the functioning ability of a retail Web site refers to the degree to which the site operates quickly, accurately and dependably. Hence, a quality Web site should load quickly when it is accessed and respond quickly to users' commands during its use. In addition, the site should perform well and consistently over a long time horizon, rather than occasionally. These attributes enable online consumers to reduce their shopping time and to avoid being inconvenienced by technical failures.

In summary, a quality retail Web site enables its users to increase shopping convenience and to reduce shopping time and effort. As discussed in the literature review, these benefits are the main components of the Internet shopping value proposition. To this extent, results of the factor analysis provide initial support for a strong causal relationship between Web site quality and consumer perception of value in Web-based shopping.

7.2.1.4. Value Perception

The factor analysis solution confirms that online shoppers perceive value not solely through quality and price but, also, through other elements such as the ability to reduce shopping time and effort, as well as the overall cost-benefit trade-off. Remarkably, experience also proves to be an important contributor to consumer perception of value. Thus, online shoppers are concerned not only with the shopping outcomes but, also, with its experiential component. In this regard, the factor analysis results seem to imply that, when shopping online, consumers are not entirely goal-oriented, but also seek to have a pleasant time.

As in any other retail settings, quality-based and price-based value perceptions remain important dimensions of consumers' overall value perception within a Web-based environment. Moreover, being the two primary aspects of value perception, quality and price are often considered in conjunction with each other. Hence, not surprisingly, the relationship between quality and price remains stronger ($r = 0.74$) than that between any other pair of factors.

Accordingly, online shoppers' perception of quality is based, firstly, on their perception of the quality of the offerings available on a Web site. In addition, as online retailers, similar to their offline counterparts, typically engage in promotional activities through special offers, another important component of quality-based value perception is whether or not such special offers are attractive to the shoppers individually. Hence, Internet shoppers perceive quality not only by itself but, also, in relation to their personal preferences.

With reference to price-based value perception, results of the analysis confirm that online consumers perceive prices not simply in absolute terms but, rather, as a function of value (i.e., value for money). Similarly, another indicator of price-based value is consumers' overall evaluation of their online deals in terms of the price they pay. To the extent that

price and quality often counterbalance each other in commercial exchanges, these two factors can be regarded as aspects of the monetary component of consumer value perception.

The statistical results also provide support for the notion that an important component of the Internet shopping value proposition is its ability to reduce shopping time and effort for consumers. Interestingly, the findings seem to indicate that respondents give equal weights to both shopping time and effort, considering the statistical performance of these two indicators in both the EFA and CFA. In addition, a more intangible dimension of value perception is the experiential element of the online shopping process. In this regard, an online shopping experience that is considered to be pleasant and enjoyable is likely to help enhance consumer perception of value. Lastly, online consumers also form an overall perception of the benefits that they receive when shopping with an Internet retailer in relation to the associated costs. These factors seem to represent the non-monetary component of value perception.

In summary, the factor analysis results are generally consistent with prior research, as discussed in the literature review, which suggests that value perception should be considered in terms of a combination of monetary and non-monetary attributes. Statistically, the factor solution helps to identify the underlying structure of value perception, and provides a simple, yet comprehensive, explanation of this structure.

7.2.1.5. Commitment

Findings from the data analysis offer important insights into the commitment notion. These insights are meaningful not only for the purposes of the present study but, also, for marketing research concerning the way commitment can be conceptualised and operationalised. Specifically, the resulting factor solution indicates that Commitment consists of two main dimensions: Attitudinal Predisposition and Relationship Orientation.

While these two dimensions differ in terms of their nature and characteristics, they share a close and complementary relationship with each other.

Conceptually, Attitudinal Predisposition can be viewed as a bi-dimensional construct consisting of Personal Attachment and Relative Attitude. Personal Attachment refers to consumers' liking of a retail Web site and, possibly, their sense of belonging to the site. Relative Attitude, on the other hand, reflects shoppers' belief that their retailer is in some way superior to its competitors and, correspondingly, their preference for the retailer over comparable alternatives. Thus, Attitudinal Predisposition is concerned with both customers' current personal attachment to a retailer and their attitude towards the company in relation to its competitors. In other words, it is a function of customers' favourable bias toward the firm at present.

On the other hand, Relationship Orientation refers to customers' appreciation of the benefits of a quality, long-term relationship with the firm, and their subsequent interest in maintaining such a relationship. Hence, Relationship Orientation is more indicative of customers' future intentions. Therefore, to the extent that the tenure of a customer-service provider relationship can influence the quality of the relationship, Relationship Orientation can potentially have a stronger predictive power on Relationship Quality, compared to Attitudinal Predisposition.

Thus, the findings provide important insights into the commitment notion and, in addition, offer support for another meaningful way of conceptualising this construct. Commitment is typically portrayed in the literature as a positive evaluation of, and a desire for, a long-term relationship with a firm (see, for example, Moorman *et al.*, 1992; Morgan and Hunt, 1994), which can be influenced by other factors, such as the availability of choice (Amine, 1998). However, the findings indicate that this is just one dimension of this construct, and that commitment can also be considered as a function of customers' present and future

dispositions towards the firm. Indeed, results of both the EFA and CFA provide strong support, statistically and conceptually, for this notion.

7.2.1.6. Trust

The analysis results indicate that, statistically, Trust is a single-dimensional construct. Conceptually, however, the indicators of Trust are relatively heterogenous in terms of their scope and nature. In general, these indicators can be said to represent a mix of necessary and sufficient conditions for a trusting relationship to exist between consumers and online retailers. To this end, the one-factor solution seems to be an indication of the strong and complementary relationships between these indicators.

Since online shopping experiences are typically characterised with a lack of direct contact between shoppers and customer service personnel, a primary indicator of trust is the shoppers' belief that their retailers will accurately conform to the requests that they have made via the Internet. Likewise, since Web-based retailers often require their customers to supply more personal information than store-based retailers, online consumers, in complying with such requirements, indicate the confidence they have in their retailers not deliberately using their personal information for unauthorised purposes. Thus, these factors are essential for an online purchase to be initiated and completed. In other words, online shopping, by nature, requires shoppers to invest a certain level of trust in online retailers. Hence, these indicators do not provide conclusive evidence of the kind of trust that can help enhance customer relationship and loyalty, as discussed in the literature review. Therefore, they should be regarded only as necessary conditions for Trust.

On the other hand, the level of trust that exists in a retailer-shopper relationship may also extend beyond what is necessary to conduct an online transaction. Indeed, the factor analysis solution shows that trust may also manifest itself in other ways, including the shoppers' conviction that they are being treated fairly by their retailer and the belief that

the retailer can and will fulfil its promises and commitment. Not surprisingly, consumer perception of a retailer's trustworthiness has also proven to be an important indicator of their trust in the firm. Clearly, these factors are indicative of a deeper and more intricate level of trust that needs to be developed over a long time horizon, which therefore can potentially have an important impact on customer relationship quality. To this extent, they can be considered as sufficient conditions for Trust.

7.2.1.7. Safety Perception

Outcomes of the statistical analysis suggest that Safety Perception is a function of both the level of Familiarity and the sense of Security that online consumers have concerning their retailers. These dimensions are closely related and complement each other, which is evident through the strong correlation between the two factors ($r = 0.73$). Conceptually, Security refers to the more technical and measurable elements such as the provision of security information and, particularly, the protection of payment details. Familiarity, on the other hand, represents the "softer" aspect of Safety Perception, and is related to the level of mental comfort that consumers have in dealing with an Internet retailer.

Specifically, Security is a function of the extent to which shopping at a retail Web site is perceived as risk-free. Such a perception is founded, firstly, on shoppers' satisfaction with the information about security provided on the Web site. In addition, to the extent that perception of financial risk is often regarded as a major issue in online shopping, consumer confidence in a retailer's capability to safeguard their payment information is another important indicator of security perception. These two attributes are associated with a shopper's belief that his or her transactions on the retailer's Web site are well-protected and, correspondingly, the belief that shopping at the site involves minimal risks. Thus, Security can be viewed as a primary facilitator of consumer willingness to be engaged in a transaction with an Internet retailer.

On the other hand, the extent to which an online shopper is conversant with a retail Web site, and the ease with which the shopper can make a purchase decision while using the site, are indicative of the Familiarity that the shopper has towards the retailer. By nature, such familiarity is likely to be possible only after repeated usage of the site. Hence, Familiarity is related to a shopper's length of experience with a retailer and, therefore, is more likely to exist among long-term and/or regular customers. Thus, compared to Security, Familiarity can be more indicative of the strength of the bond between online shoppers and their retailers.

7.2.2. The Research Model

7.2.2.1. Structural model estimation and re-specification

The analytical outcomes show that the proposed model does not fit well with the collected data set. However, this is not entirely unexpected because the model was developed based primarily on findings from prior studies that were not conducted in an online context.

Importantly, the main proposition in this model is that the relationship between Loyalty and Trust, Commitment and Safety Perception is fully mediated by Relationship Quality, while Overall Satisfaction plays a similar role in the relationship between Loyalty and Service Quality, Web Site Quality, and Value Perception. Thus, the underlying assumption here is that there is no direct relationship between Loyalty and its two sets of primary antecedents, and also between members of these two sets of constructs. While this is not entirely consistent with some streams of the literature, as discussed earlier, it is the most parsimonious way to represent the structural relationships between the research constructs.

The modified version of the proposed model suggests that this underlying assumption is the main reason behind the poor fit of the original model. This is consistent with an

observation made by Meuter *et al.* (2005) who note that, in behavioural research, fully mediated relationships among constructs are rare and, as such, it is usually more realistic to expect partial mediation.

On the other hand, results of the data analysis also indicate that this assumption is not entirely flawed. For example, Trust has been found, in this research, to have a significant direct impact on Loyalty, which is consistent with the literature. However, the direct effect of Trust on Loyalty becomes non-significant when Commitment and Relationship Quality are introduced into the equation, in which case Trust only affects Loyalty through these two constructs. In other words, Commitment and Relationship Quality fully mediate the relationship between Trust and Loyalty. This is not the case in the Loyalty-Commitment relationship, which remains significant whether or not Relationship Quality is present. In other words, Relationship Quality only partially mediates the relationship between Commitment and Loyalty. In a similar manner, findings from the data analysis suggest that some, but not all, of the variables in the two sets of primary antecedents of loyalty are directly related to each other. For example, Service Quality has a direct and significant influence on Safety Perception and Trust, but not on Commitment.

Methodologically, these findings provide support for the model building approach that has been adopted in this study, that is, to begin with the most parsimonious form and progressively build up the model by adding more paths. While the modified model only achieved a moderate fit, all modifications were guided by both statistical and theoretical considerations. In other words, only relationships that are both statistically significant and have either been established in prior research, or can be justified based on the ways constructs are conceptualised and measured in this study, were included in the refined model. Thus, it can be argued that the final solution is both statistically and conceptually sound.

7.2.2.2. Relationships between e-loyalty and its antecedents

With regard to the influence of satisfaction and relationship quality on e-loyalty, findings from the data analysis suggest that Loyalty is not significantly affected by Satisfaction, whereas Relationship Quality only has a slightly noticeable impact on this construct ($\beta = 0.09$). On the contrary, Loyalty has been found to be determined, firstly, by Commitment ($\beta = 0.49$), followed by Value Perception ($\beta = 0.23$) and, to a lesser extent, Service Quality ($\beta = 0.14$). To varying degrees, these constructs also relate to Loyalty through the mediation of each other. In particular, Value Perception has a considerable impact on Commitment ($\beta = 0.38$), thus having a significant indirect relationship with Loyalty through this construct. On the other hand, while Service Quality also influences Loyalty through Relationship Quality and Value Perception, these indirect effects are not noticeable due to the weak relationship between Loyalty and Relationship Quality, and that between Service Quality and Value Perception (Beta weight for both relationships is 0.09). Commitment, likewise, has a relatively insignificant indirect impact on Loyalty through Relationship Quality.

The analysis results also identify many fully mediated relationships between e-loyalty and a number of variables. Specifically, Website Quality has a substantial influence on Value Perception ($\beta = 0.44$) and Service Quality ($\beta = 0.45$), thus having a significant indirect relationship with Loyalty through these constructs. In a similar manner, Value Perception also fully mediates the relationship between Safety Perception and Loyalty (Beta weight for the Safety Perception-Value Perception relationship is 0.29). Importantly, the SEM solution indicates that Trust, unlike Commitment, does not have a significant direct impact on Loyalty. Instead, the relationship between Trust and Loyalty is mediated by Commitment and, to a lesser degree, Relationship Quality.

In summary, the research findings generally fail to confirm the main proposition of this study, namely, customer satisfaction and relationship quality are two major antecedents of customer loyalty in e-retailing. Subsequently, the findings also do not offer support for the speculation that satisfaction and relationship quality are the main mediators in the relationship between e-loyalty and its primary antecedents.

On the other hand, the results are quite consistent with the stream of literature which depicts commitment as the most important determinant of customer loyalty. Also, findings from the data analysis provide support for most hypothesised relationships concerning the predictors of customer satisfaction and relationship quality and, in addition, help identify many relationships that are implied in this sample and were not proposed in the original research model.

Table 7.1. Factors Affecting Customer Loyalty

Construct	Direct effect β	Indirect effect		Total effect
		Mediator	β	
Commitment	0.49	n/a	n/a	0.49
Value Perception	0.23	Commitment	0.19	0.42
Service Quality	0.14	n/a	n/a	0.14
Relationship quality	0.09	n/a	n/a	0.09
Website Quality	n/a	Value Perception Service Quality	0.10 0.06	0.16
Safety Perception	n/a	Value Perception	0.07	0.07
Trust	n/a	Commitment	0.22	0.29

7.2.2.3. Relationships between customer satisfaction and its antecedents

Results of the data analysis confirm that Web site quality, service quality, and value perception are important antecedents of customer satisfaction in Internet retailing. Specifically, Web site Quality has been found to have the strongest impact on online

shopper satisfaction ($\beta = 0.39$), while Service Quality and Value Perception both have a weaker effect (Beta weights are 0.18 and 0.19 respectively). Relationship Quality, on the other hand, is only a minor contributor to customer satisfaction ($\beta = 0.06$). Remarkably, Safety Perception proves to be an important predictor of Satisfaction ($\beta = 0.24$) which, in fact, is not surprising given the different types of risks usually associated with online shopping in its present state (see Chapter 4).

Many research constructs have also been found to have a significant, indirect relationship with satisfaction. Specifically, Web site Quality has a strong direct impact on Service Quality ($\beta = 0.45$), Value Perception ($\beta = 0.44$) and Safety Perception ($\beta = 0.30$), all of which are important predictors of Satisfaction. Thus, Web site Quality indirectly influences Satisfaction through these constructs. Also, Safety Perception, which directly influences Value Perception ($\beta = 0.29$), indirectly affects Satisfaction through Value Perception. Likewise, Service Quality has a strong indirect relationship with Satisfaction through Safety Perception, but not through Value Perception due to the weak relationship between Service Quality and Value Perception ($\beta = 0.09$).

Table 7.2. Factors Affecting Customer Satisfaction

Construct	Direct effect β	Indirect effect		Total effect
		Mediator	β	
Website Quality	0.39	Service Quality Value Perception Safety Perception	0.08 0.10 0.07	0.64
Service Quality	0.18	Safety Perception	0.08	0.26
Value Perception	0.19	n/a	n/a	0.19
Relationship Quality	0.06	n/a	n/a	0.06
Safety Perception	0.29	Value Perception	0.06	0.35

7.2.2.4. Relationships between relationship quality and its antecedents

The data analysis results suggest that Relationship Quality is significantly and directly affected by both Commitment ($\beta = 0.32$) and Trust ($\beta = 0.18$), but not Safety Perception. This refutes the speculation that, due to the perceived risky nature of Internet shopping, safety perception becomes an important determinant of customer relationship quality.

Also, another important predictor of Relationship Quality is Service Quality which, unexpectedly, has even a stronger impact on this construct ($\beta = 0.42$) than either Commitment or Trust. In addition, Service Quality has a very strong influence on Trust ($\beta = 0.76$), thus having a significant indirect effect on Relationship Quality through Trust. Trust, in turn, also has an indirect relationship with Relationship Quality that is mediated by Commitment. On the other hand, Value Perception has no direct impact on Relationship Quality but, rather, affects this construct through Commitment. Similarly, Web site Quality indirectly influences Relationship Quality through Service Quality.

Table 7.3. Factors Affecting Relationship Quality

Construct	Direct effect β	Indirect effect		Total effect
		Mediator	β	
Trust	0.18	Commitment	0.14	0.32
Commitment	0.32	n/a	n/a	0.32
Service Quality	0.42	Trust	0.14	0.56
Value Perception	n/a	Commitment	0.12	0.12
Website Quality	n/a	Service Quality	0.19	0.19

7.3. Conclusion

The research findings illustrate the complexity of the constructs involved in this study, both in terms of their inherent characteristics and in the ways they relate to each other within an online context. As such, the findings provide meaningful insights into the

research problem and, in addition, offer numerous important implications for marketing theory and practice. These will be discussed in the next chapter.

Chapter 8 - Implications of the Research Findings

8.1. Introduction

This chapter further discusses the implications of the research findings and the contributions that this study makes to the marketing discipline. In addition, it acknowledges the limitations of this study, and identifies areas for further research.

8.2. Implications for Marketing Theory

The research findings indicate that the antecedents of customer loyalty remain fundamentally unchanged across online and offline contexts. However, the resulting SEM solution also suggests that the influence that each of these factors has on loyalty differs in each context. Thus, some factors that are traditionally considered to be more important in engendering customer loyalty in a store-based context become less important in a Web-based setting, and vice versa.

One notable finding is the non-significant relationship between customer satisfaction and loyalty. Nonetheless, while this is rather unexpected, it corresponds with the contention that satisfaction is increasingly becoming insufficient for the development of customer loyalty. It is also consistent with findings from empirical studies which provide inconclusive evidence of a statistically significant causal relationship between satisfaction and loyalty in both online and offline contexts (see Chapter 2 for a detailed discussion on this issue). Likewise, relationship quality is found to only have a slight, albeit statistically significant, impact on e-loyalty. Hence, it seems that both relationship quality and satisfaction become less important to the development of customer loyalty in a Web-based setting.

On the other hand, commitment was identified as the strongest predictor of loyalty, which is quite consistent with prior research. However, another important finding is that e-

loyalty is not directly influenced by trust which, traditionally, is considered to be comparable to commitment as an antecedent of loyalty. Rather, e-loyalty is found to be significantly influenced by factors such as perceived value and service quality which are often regarded as less important than trust in engendering customer loyalty.

The strong impact of perceived value on customer loyalty highlights the outcome-oriented disposition of online shoppers. Hence, online consumer evaluation of the benefits that they receive in relation to the associated costs has a greater impact on loyalty than their perception of service quality, although the role of service quality, as operationalised in this research, is pervasive throughout the shopping experience. Because of this pervasive role, however, service quality plays a critical role in providing shoppers with a sense of assurance in their relationship with an e-retailer. Hence, service quality has a particularly strong influence on trust, and also on relationship quality.

With reference to service quality, the research findings also have important implications concerning the way e-service quality should be conceptualised and assessed. Contradictory to the stream of literature which views Web-based service quality as comprising an online and an offline dimension (see section 3.2.4), this research shows that it is more beneficial to consider service quality independently from Web site quality. The factor analysis outcomes indicate that each of these constructs is multi-dimensional in its own right. Moreover, the structural model testing results show that service quality and Web site quality largely differ from each other in terms of their influence on other constructs (such as satisfaction and value perception). In relation to e-loyalty, service quality has a significant direct effect on loyalty, while Web site quality does not. Hence, compounding service quality and Web site quality into a single construct will result in a loss of important insights into the significance of each construct in marketing research.

One noteworthy issue raised in this study is the notion of safety perception. While consumer perception of risk in Internet shopping has been well studied, particularly in relation to their willingness to shop online (see section 4.2.1), it seems that online shopper perception of safety in dealing with particular Internet retailers has not received adequate attention from marketing theorists. While risk perception can affect consumer adoption of e-services, findings from this research suggest that safety perception can have an important influence on the perceptions and behaviours of those who already shop online. Thus, safety perception can potentially be considered as an important construct in e-retailing research.

The research findings also highlight the role of the experiential factor in online shopper perception of value, suggesting that consumers are not solely goal-oriented when shopping online, but also seek to have a pleasant experience. In other words, the “fun” factor remains important in a Web-based shopping context. This represents an intangible element of the online shopping value bundle which has not been well-researched.

Meaningful implications can also be drawn concerning the applicability of the relationship marketing paradigm in a Web-based context. On the one hand, the results have been consistent with the core proposition of the relationship marketing paradigm, that is, relationship quality is built on trust and commitment. Since this marketing theory was founded on research that was conducted in the offline context, this finding indicates that the nature of relationship quality remains fundamentally unchanged in the Web-based environment.

On the other hand, while the relationship marketing paradigm emphasises the importance of relationship quality to customer loyalty in business exchanges, findings from this study suggest that, within an Internet retailing context, commitment is more important than relationship quality in securing customer loyalty. In other words, the findings do not offer

strong support for the contention that relationship quality is a strong determinant of customer loyalty. Therefore, while the rationale of developing a quality relationship with online shoppers is intuitively appealing, the benefits of relationship quality in a Web-based setting are not necessarily the same as those in the traditional context and, as such, remain to be identified. To this end, a relevant research question is whether relationship quality assumes the same importance in Internet retailing as it does in the offline context.

In conclusion, the development of academic research on marketing to online consumers necessitates the re-assessment of existing research constructs. With the exception of Web site quality and safety perception, all research constructs in this study were originally identified in the literature on marketing in the offline environment. Findings from this study suggest that the nature, characteristics and significance of these constructs are bound to differ, to varying degrees, in a Web-based setting. In this regard, the findings have important implications for future research. These will be further discussed in the next section.

8.3. Implications for Marketing Research, Limitations of this Study and Directions for Further Research

The research findings highlight the inherent complexity of the research constructs within a Web-based context. In this regard, the measurement scales established in this study have proven to be a simple, yet comprehensive, way of assessing the constructs which reflects well their nature and characteristics.

The indicators used in this research are grounded in numerous previous studies, many of which were conducted in the offline context. As such, the construct validity established in both the exploratory and confirmatory factor analyses is evidence of a successful attempt to build on past research and to gauge the extent to which existing theory is applicable to the new Web-based environment. Importantly, most of the hypothesised relationships are

well supported by the collected data, which is an indication of the consistency in the relationships between the research constructs across online and offline settings. To this extent, the results show that existing marketing literature can be useful as a platform to create a body of knowledge that is specifically pertinent to Web-based marketing.

On the other hand, results of the data analysis also suggest that the dimensionality of some constructs (such as service quality and commitment) differs, to varying degrees, from what is described in prior research. Also, some hypotheses (for example, that concerning the relationship between satisfaction and loyalty) have to be rejected. These findings seem to provide support for the notion that online consumer perceptions and behaviours are likely to differ, in some way, from those in the offline setting. This can be regarded as evidence of the need for more context-specific research into this domain.

Thus, although the measurement models are conceptually sound and fit the sample well, they do not necessarily represent the ultimate solutions. In addition, while many of the indicators used have been tested in different studies, the scales themselves are first used in this research and, therefore, need to be cross-validated in subsequent studies, preferably in different Web-based contexts. Hence, there exists an opportunity to re-assess and refine the measurement scales through further investigation.

Similarly, although the final structural model fits well with the collected data, it is exploratory, rather than confirmatory, by nature. Therefore, this model also needs to be re-tested in future studies. Future studies may also extend to the identification and testing of competing models in order to discover more parsimonious and meaningful ways of depicting the relationships between the research constructs.

A further weakness of this study is that all participating firms are Web-only retailers. Hence, it would be interesting and beneficial to test the degree to which the current model holds in an offline environment, as well as in a multi-channel retailing context.

Additionally, as with most other data collection approaches, the survey method used in this study means that the collected data set is potentially affected by self-selection bias. Therefore, the accuracy of the research findings will need to be verified in subsequent studies.

Also, the point of data collection (i.e., immediately after a purchase) can potentially affect the quality of the collected data. As can be observed in the descriptive statistics of some of the measured variables (e.g., Website quality, service quality, trust and safety perception), the means tend to be high while standard deviations are relatively low. This suggests that, since the respondents have just made a purchase commitment, they are likely to have an implicitly favourable perception of the retailers. To this extent, the findings would benefit from future re-validations using other research designs, such as a longitudinal panel.

Some issues raised in this study (see section 8.2) merit special attention in future research. In particular, the weak predictive power of relationship quality on customer satisfaction and loyalty, albeit statistically significant, suggests that the issue should be further investigated. Also, some factors traditionally referred to as important antecedents of customer loyalty, such as customer satisfaction and trust, have been found in this study to have a non-significant impact on loyalty. Considering the importance of customer loyalty in e-retailing, a fruitful venue for future research is to verify these findings and further explore the antecedents of e-loyalty.

Further research is also needed into the nature, characteristics and significance of factors that are potentially important in e-retailing but have not been well studied. For example, the powerful effect of safety perception on other constructs (such as satisfaction and value perception) warrants more investigation into this notion. Similarly, the significance of the experiential dimension of online shopper perception of value suggests that it is worthwhile to further explore this factor.

8.4. Implications for Marketing Practice

Results of this research offer important implications for marketing practice. First, the findings confirm the existence and benefits of customer loyalty in online retailing. More importantly, the study identifies the different dimensions of e-loyalty and the intricate relationships between these dimensions. The research findings show how e-loyalty manifests itself in multiple ways, some of which may not be readily observable.

Indeed, while repurchase behaviour and word-of-mouth referrals are often regarded as the most prominent indicators of customer loyalty, this study shows that this construct has more subtle indicators that may remain latent unless acted on by e-retailers. In particular, customers who recognise the benefits of, and are interested in, a long-term association with their retailers are likely to be prepared to engage in activities that can contribute to the firms' long-term success, such as providing testimonials and/or suggestions for improvement, and giving the firms a second chance when mistakes are made. However, if the firms fail to recognise such willingness and subsequently fail to encourage these behaviours, they may lose both the direct benefits of such behaviours, and also an opportunity to develop a bonding relationship with willing customers.

In summary, an accurate understanding of the nature and characteristics of e-loyalty is essential for Web-based retailers to assess the loyalty of their customers, and to develop appropriate strategies to enhance online customer loyalty and maximise its potential benefits. In this regard, this study identifies factors that contribute to the development of customer loyalty in online retailing, as well as the attributes of these factors. Importantly, the findings also reveal the significance of each factor in relation to e-loyalty. To this extent, the research outcomes can be useful for e-retailers in their efforts to develop and nurture customer loyalty.

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Appendix A: Relevant measurement scales developed in prior studies

AUTHORS	LOYALTY INDICATORS
Jarvenpaa <i>et al.</i> (1999)	<p><u>Willingness to buy:</u> (very likely/ very unlikely)</p> <p>How likely is it that you would return to this store's web site?</p> <p>How likely is that you would consider purchasing from this store in the next 3 months?</p> <p>How likely is it that you would consider purchasing from this store in the next year?</p>
Baloglu (2002)	<p><u>Word-of-mouth:</u></p> <p>When the topic of casinos comes up in conversations, I would recommend this casino</p> <p>I take pride in telling other people about my experiences in this casino</p> <p>I tell other people positive things about this casino</p> <p><u>Cooperation:</u></p> <p>If I saw an idea that I liked at another casino, I would share this idea with this casino's management or employees.</p> <p>I would allow my name and a positive comment I made about this casino to be used in an advertisement.</p> <p>I am more likely to tell management or employees about problems that occur in this casino than other casinos</p>
Park and Kim (2003)	<p><u>Site commitment:</u></p> <p>I will not change my book shopping site in the future</p> <p>I will continuously purchase books at this site in the future</p> <p>I will recommend this site to other people</p> <p>I will visit this site first when I want to buy books</p> <p><u>Purchasing behaviour:</u></p> <p>Please mark the frequency of book purchase at this site in a year</p>
Caruana (2002)	<p><u>Service loyalty:</u></p> <p>Say positive things about XYZ to other people</p> <p>Intend to continue doing business with XYZ</p> <p>Encourage friends and relatives to do business with XYZ</p> <p>Seldom consider switching away from XYZ</p> <p>Doubt that I would switch</p> <p>Really like doing business with XYZ</p> <p>To me, XYZ is clearly the best to do business with</p> <p>Believe XYZ is a good bank</p> <p>Try to use XYZ every time I need services</p> <p>Consider XYZ my primary bank</p> <p>First choice when I need XYZ services</p>

	Primary place where I consider when I want to use XYZ services
Foster and Cadogan (2000)	<p><u>Future purchase behaviours - retention:</u></p> <p>I intend to do more business with XYZ in the next few years</p> <p>I intend to do less business with XYZ in the next few years (r)</p> <p>I intend to take some of my business to a competitor that offers better prices (r)</p> <p><u>Attitudinal loyalty:</u></p> <ol style="list-style-type: none"> 1. I consider XYZ my first choice when buying office products 2. The XYZ has a personality 3. In comparison to other brands I know, the XYZ brand is growing in popularity 4. The XYZ brand is different from competing brands <p><u>Recommendation behaviours:</u></p> <p>I say positive things about XYZ to other people</p> <p>I recommend XYZ to someone who seeks my advice</p> <p>I encourage others to do business with XYZ</p> <p><u>Price loyalty:</u></p> <ol style="list-style-type: none"> 1. I would continue to do business with XYZ if its prices increased somewhat 2. I would pay more than competitors' prices for the benefits I am receiving from XYZ <p><u>Buying experience with XYZ:</u></p> <ol style="list-style-type: none"> 1. I have been a XYZ customer for about _____ years
Macintosh (2002)	<p><u>Type of relationship:</u></p> <ol style="list-style-type: none"> 1. I go to the same hair salon (always/almost always/seldom) <p><u>Interest in alternatives:</u></p> <ol style="list-style-type: none"> 1. I often check the newspaper to see which salons have specials 2. I frequently ask others where they get their hair cut/styled 3. I am very likely to try newly opened salons <p><u>Enhancement:</u></p> <p>If suggested by my hairstylist I would be willing to buy extra hair care products</p> <p>I would allow the stylist to try techniques on my hair that he/she has never done before</p> <p><u>Identification:</u></p> <ol style="list-style-type: none"> 1. If invited, I would attend a social function put on by the salon for employees and customers 2. I would be willing to display the salon logo with the name of the stylist on it (eg, bumper sticker) <p><u>Cooperation:</u></p> <ol style="list-style-type: none"> 1. If asked to, I would be willing to reschedule my appointment for a

	<p>later date with the same stylist</p> <p>2. If asked to, I would be willing to recommend the stylist to other people in return for a discount on my next hair cut</p> <p><u>Advocacy:</u></p> <p>1. I would be willing to participate, free of charge, in an advertisement for the salon</p> <p>2. I often recommend the hairstylist to others</p>
Lynch <i>et al.</i> (2001)	<p><u>Purchase intention:</u></p> <p>1. I would consider buying the product (xyz) at this website</p> <p><u>Loyalty:</u></p> <p>1. I would return to this website to make purchases.</p>
Sirdeshmukh <i>et al.</i> (2002)	<p><u>Loyalty:</u></p> <p>How likely are you to</p> <p>1. Do most of your future shopping at this store?</p> <p>2. Recommend this store to friends, neighbours, and relatives?</p> <p>3. Use this store the very next time you need to shop for a clothing item?</p> <p>4. Spend more than 50% of your clothing budget at this store?</p>
Srinivasan <i>et al.</i> (2002)	<p><u>E-loyalty:</u></p> <p>1. I seldom consider switching to another website.</p> <p>2. As long as the present service continues, I doubt that I would switch websites.</p> <p>3. I try to use the website whenever I need to make a purchase.</p> <p>4. When I need to make a purchase, this website is my first choice.</p> <p>5. I like using this website.</p> <p>6. To me this website is the best retail website to do business with.</p> <p>7. I believe that this is my favourite website.</p> <p><u>Search:</u></p> <p>1. I regularly read/watch advertisements to compare competing websites.</p> <p>2. I decide on visiting competing website for shopping on the basis of advertisements.</p> <p>3. I often talk to friends about their experiences with competing websites.</p> <p>4. I explored many competing websites in order to find an alternative to this site.</p> <p>5. I conducted an extensive search before making a purchase at this website.</p> <p><u>Word-of-mouth:</u></p> <p>1. I say positive things about this website to other people.</p> <p>2. I recommend this website to anyone who seeks my advice.</p> <p>3. I do not encourage friends to do business with this website. (r)</p>

	<p>4. I hesitate to refer my acquaintances to this website. (r)</p> <p><u>Willingness to pay more:</u></p> <ol style="list-style-type: none"> 1. Will you take some of your business to a competitor that offers better prices? (r) 2. Will you continue to do business with this website if its prices increase somewhat? 3. Will you pay a higher price at this website relative to the competition for the same benefit? 4. Will you stop doing business with this website if its competitors' prices decrease somewhat? (r)
Zeithaml <i>et al.</i> (1996)	<p><u>Loyalty:</u></p> <ol style="list-style-type: none"> 1. Say positive things about XYZ to other people. 2. Recommend XYZ to someone who seeks your advice. 3. Encourage friends and relatives to do business with XYZ. 4. Consider XYZ your first choice to buy _____ services. 5. Do more business with XYZ in the next few years. <p><u>Switch:</u></p> <p>Do less business with XYZ in the next few years. (r)</p> <p>Take some of your business to a competitor that offer better prices. (r)</p> <p><u>Pay more:</u></p> <ol style="list-style-type: none"> 1. Continue to do business with XYZ if its prices increase somewhat. 2. Pay a higher price than competitors charge for the benefits you currently receive from XYZ. <p><u>External response:</u></p> <ol style="list-style-type: none"> 1. Switch to a competitor if you experience a problem with XYZ's service. 2. Complain to other customers if you experience a problem with XYZ's service. 3. Complain to external agencies, such as the Better Business Bureau, if you experience a problem with XYZ's service. <p><u>Internal response:</u></p> <ol style="list-style-type: none"> 1. Complain to XYZ's employees if you experience a problem with XYZ's service.
Wulf and Odekerken-Schröder (2003)	<p><u>Behavioural loyalty:</u></p> <ol style="list-style-type: none"> 1. What % of your total expenditures for clothing do you spend at this retailer? 2. How many retailers did you buy clothing from during the last 12 months?
Lu and Lin (2002)	<p><u>Customer loyalty:</u></p> <ol style="list-style-type: none"> 1. I think I will read <i>China Times Inter@ctive</i> whenever I have a chance in the future. 2. I will put the address of <i>China Times Inter@ctive</i> in my bookmark

AUTHORS	WEB SITE QUALITY INDICATORS
Loiacono <i>et al.</i> (2002)	<p><u>Usefulness:</u></p> <p><i>Information Fit-to-task:</i></p> <p>The information on the Web site is pretty much what I need to carry out my tasks</p> <p>The Web site adequately meets my information needs</p> <p>The information on the Web site is effective</p> <p><i>Interactivity:</i></p> <p>The Web site allows me to interact with it to receive tailored information.</p> <p>The Web site has interactive features, which help me accomplish my task.</p> <p>I can interact with the Web site in order to get information tailored to my specific needs</p> <p><i>Trust</i></p> <p>I feel safe in my transactions with the Web site</p> <p>I trust the Web site to keep my personal information safe</p> <p>I trust the Web site administrators will not misuse my personal information</p> <p><i>Response Time:</i></p> <p>When I use the Web site there is very little waiting time between my actions and the Web site's response.</p> <p>The Web site loads quickly</p> <p>The Web site takes long to load</p> <p><u>Ease of use</u></p> <p><i>Ease of understanding:</i></p> <p>The display pages within the Web site are easy to read.</p> <p>The text on the Web site is easy to read</p> <p>The Web site labels are easy to understand.</p> <p><i>Intuitive Operation:</i></p> <p>Learning to operate the Web site is easy for me</p> <p>It would be easy for me to become skilful at using the Web site</p> <p>I find the Web site easy to use</p> <p><u>Entertainment:</u></p> <p><i>Visual Appeal:</i></p> <p>The Web site is visually pleasing</p> <p>The Web site displays visually pleasing design</p> <p>The Web site is visually appealing</p> <p><i>Innovativeness:</i></p> <p>The Web site is innovative</p> <p>The Web site design is innovative</p>

	<p>The Web site is creative</p> <p><i>Flow – Emotional Appeal</i></p> <p>I feel happy when I use the Web site</p> <p>I feel cheerful when I use the Web site</p> <p>I feel sociable when I use the Web site</p> <p><u>Complimentary Relationship:</u></p> <p><i>Consistent Image:</i></p> <p>The Web site projects an image consistent with the company's image</p> <p>The Web site fits with my image of the company</p> <p>The Web site's image matches that of the company</p> <p><i>Online Completeness</i></p> <p>The Web site allows transactions online</p> <p>All my business with the company can be completed via the Web site</p> <p>Most all business processes can be completed via the Web site</p> <p><i>Better Than Alternative Channels:</i></p> <p>It is easier to use the Web site to complete my business with the company than it is to telephone, fax, or email a representative</p> <p>The Web site is easier to use than calling an organizational representative agent on the phone</p> <p>The Web site is an alternative to calling customer service or sales.</p>
Park and Kim (2003)	<p><u>User interface quality:</u></p> <p>This site is convenient to search for a book</p> <p>This site is convenient to order a book</p> <p>This site is easy to navigate wanted pages</p> <p>This site is user friendly</p>
Jun and Cai (2001)	<p><u>Online system quality:</u> (result of CIT - content analysis)</p> <p><i>Content:</i></p> <p>Information on products and services online</p> <p>Other information that customer needs</p> <p><i>Accuracy:</i></p> <p>Accurate online transactions</p> <p>Errors in interface</p> <p>Errors in contents</p> <p><i>Ease of use:</i></p> <ol style="list-style-type: none"> 1. Compatibility 2. User friendly 3. Easy login 4. Speed of responses 5. Accessibility of the Web site

	<p>6. Functions that customers need</p> <p>7. Easy navigation</p> <p><i>Timelines:</i></p> <p>Up-to-date information</p> <p><i>Aesthetics:</i></p> <p>Attractiveness of the Web site</p> <p><i>Security:</i></p> <p>Privacy</p> <p>Information transaction safety</p>
Mcknight <i>et al.</i> (2002)	<p><u>Perceived site quality:</u></p> <p>Overall, this site worked very well technically</p> <p>Visually, this site resembled other sites I think highly of</p> <p>This site was simple to navigate</p> <p>On this site, it was easy to find the information I wanted</p> <p>This site clearly showed how I could contact or communicate with (the firm)</p>
Lynch <i>et al.</i> (2001)	<p><u>Site quality:</u></p> <ol style="list-style-type: none"> 1. Was this site easy to use? 2. How would you rate the quality of this site's search engine? 3. Did the site have helpful pictures and graphics? 4. How complete was the information at this website?
Srinivasan <i>et al.</i> (2002)	<p><u>Contact interactivity:</u></p> <ol style="list-style-type: none"> 1. This website enables me to view the merchandise from different angles. 2. This website has a search tool that enables me to locate products. 3. This website does not have a tool that makes product comparisons easy. (r) 4. I feel that this is a very engaging website 5. I believe that this website is not a very dynamic one (r). <p><u>Convenience:</u></p> <ol style="list-style-type: none"> 1. Navigation through this website is not very intuitive. (r) 2. A first-time buyer can make a purchase from this website without much help. 3. It takes a long time to shop at this website. 4. This website is a user-friendly site 5. This website is very convenient to use. <p><u>Character:</u></p> <ol style="list-style-type: none"> 1. This website design is attractive to me. 2. For me, shopping at this website is fun. 3. This website does not feel inviting to me. (r)

	<p>4. I feel comfortable shopping at this website.</p> <p>5. This website does not look appealing to me. (r)</p>
Roy <i>et al.</i> (2001)	<p><u>Interface:</u></p> <ol style="list-style-type: none"> 1. Considering the home page of this site, I understand clearly what its goal is. 2. Considering the home page of this site, I understand clearly what can be done. 3. The home page of this site is easily accessible from any interior pages. 4. Each page of this site is clearly identified by the same logo. 5. I always know where I am relatively to the site structure. 6. I always know where I can go. 7. I am always able to go back easily to the pages that I had previously visited. 8. The structure of this site seems logical to me. 9. I can find easily what I am looking for on this site. 10. The search engine is always accessible. 11. The assignment of colour codes is conventional. 12. The coding is consistent across displays, menu options. 13. The display format is consistent. 14. The wording is consistent across displays. 15. Symbols for graphic data are standard. 16. It provides clarity of wording. 17. The data grouping is reasonable for easy learning. 18. The grouping of menu options is logical. 19. The ordering of menu options is logical. 20. The command names are meaningful. 21. It provides easily distinguished colours. 22. The screen density is reasonable. 23. Menus are distinct from other displayed information. 24. Groups of information are well demarcated. 25. I like the design of this site. 26. Error messages are clear and useful. 27. It always provides CANCEL option. 28. HELP is always provided.
Lu and Lin (2002)	<p><u>Context:</u></p> <ol style="list-style-type: none"> 1. Using <i>China Times Inter@ctive</i> improves the quality of my data searching ability. 2. My interaction with <i>China Times Inter@ctive</i> is clear and understandable. 3. It is easy to find the information I want in <i>China Times</i>

	<p><i>Inter@ctive</i>.</p> <p>4. Overall, I find <i>China Times Inter@ctive</i> effective to use.</p> <p><u>Infrastructure:</u></p> <ol style="list-style-type: none"> 1. I find it fast when using <i>China Times Inter@ctive</i>. 2. It is efficient to use <i>China Times Inter@ctive</i>. 3. I do not have to wait too long to get a response from <i>China Times Inter@ctive</i>
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AUTHORS	SERVICE QUALITY INDICATORS
Park and Kim (2003)	<p><u>Product information quality:</u></p> <ul style="list-style-type: none"> This site provides up-to-date book information This site provides sufficient book information This site presents book information easy to understand The book information is consistent The book information is playful The book information is relevant <p><u>Service information quality:</u></p> <ul style="list-style-type: none"> This site provides up-to-date service information This site provides sufficient service information This site presents service information easy to understand The service information is consistent The service information is playful The service information is relevant <p><u>Information satisfaction:</u></p> <ul style="list-style-type: none"> I am satisfied with the information service of this site compared to other shopping site Information service of this site satisfies my expectations I am satisfied with the overall information service of this site
Caruana (2002)	<p><u>Service quality:</u></p> <ul style="list-style-type: none"> Providing services as promised Dependability in handling customer service problems Performing services right first time Providing services at the promised time Keeping customers informed when service will be provided Prompt service to the customer Willingness to help customers. Readiness to response to customer requests Making customers feel safe in their transactions Giving customers individual attention

	<p>Having the customers' best interests at heart</p> <p>Visually appealing facilities</p> <p>Visually appealing materials associated with the service</p>
Jun and Cai (2001)	<p><u>Banking service product quality</u>: (result of CIT - content analysis)</p> <p><i>Product variety/diverse features</i></p> <p>Product range</p> <p>Product features</p> <p><u>Customer service quality</u>: (result of CIT - content analysis)</p> <p><i>Reliability</i></p> <p>Correct service</p> <p>Keep service promise</p> <p>Accurate records</p> <p>Keep promise as advertised</p> <p><i>Responsiveness</i>:</p> <p>Prompt service</p> <p>Quickly solve problems</p> <p>Convenient service</p> <p><i>Competence</i>:</p> <p>Ability to solve problems</p> <p>Knowledge to answer question</p> <p><i>Courtesy</i>:</p> <p>Address complaints friendly</p> <p>Consistently courteous</p> <p><i>Credibility</i>:</p> <p>Confidence in the bank's service</p> <p>Good reputation</p> <p><i>Access</i>:</p> <p>Availability for help</p> <p>ATM access</p> <p>Phone access</p> <p>E-mail access</p> <p>Account access when abroad</p> <p><i>Communication</i>:</p> <p>Clear answer</p> <p>Informing customer of important information</p> <p>Availability of status of transactions</p> <p><i>Understanding the customer</i></p> <p>Personal attention</p> <p><i>Collaboration</i>:</p>

	<p>External collaboration</p> <p>Internal collaboration</p> <p><i>Continuous improvement:</i></p> <p>Continuous improvement on online systems</p> <p>Continuous improvement on banking products</p> <p>Continuous improvement on customer services</p>
Foster and Cadogan (2000)	<p><u>Service quality:</u></p> <p>XYZ does not tell its customers exactly when services will be performed (r)</p> <p>XYZ keeps its records accurately</p> <p>When XYZ promises to do something by a certain time, it does so</p> <p>XYZ does not give you individual attention (r)</p> <p>The appearance of XYZ's physical facilities (e.g., transport, brochures, documentation) is in keeping with the type of service the firm provides</p>
Srinivasan <i>et al.</i> (2002)	<p><u>Customisation:</u></p> <p>This website makes purchase recommendations that match my needs.</p> <p>This website enables me to order products that are tailor-made for me.</p> <p>The advertisements and promotions that this website sends to me are tailored to my situation.</p> <p>This website makes me feel that I am a unique customer.</p> <p>I believe that this website is customised to my needs.</p>
Srinivasan <i>et al.</i> (2002)	<p><u>Cultivation:</u></p> <ol style="list-style-type: none"> 1. I do not receive reminders about making purchases from this website. (r) 2. This website sends me information that is relevant to my purchases. 3. I feel that this website appreciates my business. 4. I feel that this website makes an effort to increase its share of my business. 5. This website does not proactively cultivate its relationship with me. (r) <p><u>Care:</u></p> <ol style="list-style-type: none"> 1. I have experienced problems with billing with respect to my earlier purchases at this website. (r) 2. The goods that I purchased in the past from this website have been delivered on time 3. I feel that this website is not responsive to any problems that I encounter. (r) 4. The return policies laid out in this website are customer friendly. 5. I believe that this website takes good care of its customers. <p><u>Choice:</u></p>

	<ol style="list-style-type: none"> 1. This website provides a “one-stop shop” for my shopping. 2. This website does not satisfy a majority of my online shopping needs. (r) 3. The choice of products at this website is limited 4. This website does not carry a wide selection of products to choose from. (r)
Lu and Lin (2002)	<p><u>Content:</u></p> <ol style="list-style-type: none"> 1. <i>China Times Inter@ctive</i> offers special information. 2. <i>China Times Inter@ctive</i> offers useful information. 3. <i>China Times Inter@ctive</i> offers unique information. 4. The information that <i>China Times Inter@ctive</i> offers is accurate. 5. The information that <i>China Times Inter@ctive</i> offers is complete. 6. Overall, the information provided by <i>China Times Inter@ctive</i> is exclusive.
Yang and Jun (2002)	<p><u>Reliability:</u></p> <ol style="list-style-type: none"> 1. The quantity and quality of the product/service I received was exactly the same as that I ordered. 2. The product/service I ordered was delivered to me within the time promised by the Internet retailer. 3. The billing process was accurately handled and its records were kept accurately. 4. When the Internet retailer promised to e-mail or call me by a certain time, it did so. <p><u>Access:</u></p> <ol style="list-style-type: none"> 1. If I want to, I could easily contact a customer service representative over the phone. 2. The Web site showed its street and e-mail addresses, and phone and fax numbers. 3. The Internet retailer offered multiple ordering options such as phone or mail options. 4. For more information, I could turn to the Internet retailer’s chat rooms, bulletin boards, or others. <p><u>Ease of use:</u></p> <p>The organization and structure of online catalogues was logical and easy to follow.</p> <p>The cyberspace address was easy to remember.</p> <p>All the terms and conditions (e.g., payment, warranty, return policies) were easy to read/understand.</p> <p>The contents in the Web site were concise and easy to understand.</p> <p><u>Personalisation:</u></p> <ol style="list-style-type: none"> 1. The Internet retailer gave me a personalised or individualised attention. 2. The Web site had a message area for customer questions and

	<p>comments.</p> <p>3. I received a personal “thank you” note via e-mail or other media after I placed an order.</p> <p><u>Security:</u></p> <p>1. I felt secure in providing sensitive information (e.g., credit card number) for online purchase.</p> <p>2. I felt the risk associated with online purchase was low.</p> <p><u>Credibility:</u></p> <p>1. The Web site showed how long the Internet retailer has been in this online business.</p> <p>2. I received special rewards and discounts from doing business with the Internet retailer.</p>
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Bizrate.com Quality rating scale for online product retailers	
Rating	Explanation
<p><i>At checkout:</i></p> <p>1. Ease of ordering</p> <p>2. Product selection</p> <p>3. Product information</p> <p>4. Price</p> <p>5. Web site performance</p> <p>6. Shipping and handling</p> <p><i>After delivery</i></p> <p>7. On-time delivery</p> <p>8. Product met expectations</p> <p>9. Customer support</p> <p>10. Order tracking</p> <p>11. Would shop here again</p> <p>12. Overall rating</p>	<p>Convenience and speed of ordering</p> <p>Breadth/depth of products offered</p> <p>Information quantity, quality and relevance</p> <p>Prices relative to similar stores</p> <p>Layout, links, pictures, images and speed</p> <p>Charges and options</p> <p>Expected vs. actual delivery date</p> <p>Product description/depiction vs. what you received</p> <p>Status update and complaint/question handling</p> <p>Ability to effectively track orders</p> <p>Likelihood to return to this store</p> <p>Overall experience with store</p>
Quality rating scale for online travel reservation businesses	
Rating	Explanation
<p><i>At check-out:</i></p> <p>Ease of making reservations</p> <p>Travel planning selection</p> <p>Travel planning information</p> <p>Travel prices offered</p> <p>Web site navigation and looks</p> <p><i>After delivery:</i></p> <p>On-time delivery</p> <p>Accuracy of</p>	<p>Convenience and speed of making reservations</p> <p>Quality of travel planning selection</p> <p>Information quantity, quality and relevance</p> <p>Prices relative to similar online stores</p> <p>Layout, links, pictures, images and speed</p> <p>Expected vs. actual delivery date</p> <p>Error-free ticket/confirmation</p>

ticket/confirmation	Status update and complaint/question handling
Customer support	Online stores' efforts to inform you
Privacy policies	Quality of protection
Security attribute	

Parasuraman <i>et al.</i> (1991)'s refined SERVQUAL scale	
<u>Customer expectations of service quality</u>	<u>Customer perceptions of service quality</u>
<p><i>Tangibles:</i></p> <p>Excellent telephone companies will have modern-looking equipment</p> <p>The physical facilities at excellent telephone companies will be visually appealing</p> <p>Employees of excellent telephone companies will be neat-appearing</p> <p>Materials associated with the service (such as pamphlets or statements) are visually appealing in an excellent telephone company</p> <p><i>Reliability:</i></p> <p>When excellent telephone companies promise to do something by a certain time, they will do so</p> <p>When customers have a problem, excellent telephone companies will show a sincere interest in solving it</p> <p>Excellent telephone companies will perform the service right the first time</p> <p>Excellent telephone companies will provide their services at the time they promise to do so</p> <p>Excellent telephone companies will insist on error-free records</p> <p><i>Responsiveness:</i></p> <p>Employees of excellent telephone companies will tell customers exactly when services will be performed</p> <p>Employees of excellent telephone companies will give prompt service to customers</p> <p>Employees of excellent telephone companies will always be willing to help customers</p>	<p><i>Tangibles:</i></p> <p>XYZ has modern-looking equipment</p> <p>XYZ's physical facilities are visually appealing</p> <p>XYZ's employees are neat-appearing</p> <p>Materials associated with the service (such as pamphlets or statements) are visually appealing at XYZ</p> <p><i>Reliability:</i></p> <p>When XYZ promises to do something by a certain time, it does so</p> <p>When you have a problem, XYZ shows a sincere interest in solving it</p> <p>XYZ performs the service right the first time</p> <p>XYZ provides its services at the time it promises to do so</p> <p>XYZ insists on error-free records</p> <p><i>Responsiveness:</i></p> <p>Employees of XYZ tell you exactly when services will be performed</p> <p>Employees of XYZ give you prompt service</p> <p>Employees of XYZ are always willing to help you</p> <p>Employees of XYZ are never too busy to respond to your requests</p>

<p>Employees of excellent telephone companies will never be too busy to respond to customer requests</p> <p><i>Assurance:</i></p> <p>The behavior of employees of excellent telephone companies will instill confidence in customers</p> <p>Customers of excellent telephone companies will feel safe in their transactions</p> <p>Employees of excellent telephone companies will be consistently courteous with customers</p> <p>Employees of excellent telephone companies will have the knowledge to answer customer questions</p> <p><i>Empathy</i></p> <p>Excellent telephone companies will give customers individual attention</p> <p>Excellent telephone companies will have operating hours convenient to all their customers</p> <p>Excellent telephone companies will have employees who give customers personal attention</p> <p>Excellent telephone companies will have the customers' best interests at heart</p> <p>The employees of excellent telephone companies will understand the specific needs of their customers.</p>	<p><i>Assurance:</i></p> <p>The behavior of employees of XYZ instills confidence in customers</p> <p>You feel safe in your transactions with XYZ</p> <p>Employees of XYZ are consistently courteous with you</p> <p>Employees of XYZ have the knowledge to answer your questions</p> <p><i>Empathy</i></p> <p>XYZ gives you individual attention</p> <p>XYZ has operating hours convenient to all its customers</p> <p>XYZ has employees who give you personal attention</p> <p>XYZ has your best interests at heart</p> <p>Employees of XYZ understand your specific needs</p>
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AUTHORS	VALUE PERCEPTION INDICATORS
Park and Kim (2003)	<p><u>Relational benefit:</u></p> <ol style="list-style-type: none"> 1. At this site, I am able to reduce the time to purchase wanted books 2. At this site, I am able to reduce efforts to purchase wanted books 3. At this site, I am able to purchase wanted books that are hard to purchase at other stores 4. I will receive credible customer service from this site
Foster and Cadogan (2000)	<p><u>Product quality:</u></p> <ol style="list-style-type: none"> 1. Compared to other brands I know, the XYZ brand has high quality 2. XYZ provides good value for money
Sirdeshmukh <i>et al.</i> (2002)	<p><u>Value:</u></p> <ol style="list-style-type: none"> 1. For the prices you pay at this store, would you say shopping at this

	<p>store is a (very poor deal/ very good deal)</p> <ol style="list-style-type: none"> 2. For the time you spent in order to shop at this store, would you say shopping at this store is (highly unreasonable/ highly reasonable) 3. For the effort involved in shopping at this store, would you say shopping at this store is (not at all worthwhile/ very worthwhile) 4. How would you rate your overall shopping experience at this store (extremely poor value/ extremely good value)
Wulf and Odekerken-Schröder (2003)	<p><u>Direct mail:</u></p> <ol style="list-style-type: none"> 1. This retailer often sends mailings to regular customers. 2. This retailer often informs regular customers through brochures. 3. This retailer regularly keeps regular customers informed on novelties. <p><u>Preferential treatment:</u></p> <p>This retailer treats regular customers differently than non-regular customers.</p> <p>This retailer provides a faster service to regular customers than to non-regular customers.</p> <p>This retailer makes a greater effort for regular customers than for non-regular customers.</p> <p>This retailer offers better service to regular customers than to non-regular customers.</p> <p><u>Tangible rewards:</u></p> <ol style="list-style-type: none"> 1. This retailer rewards regular customers for their patronage. 2. This retailer thanks regular customers for their patronage by providing them gifts.

AUTHORS	RISK/SECURITY PERCEPTION INDICATORS
Jarvenpaa <i>et al.</i> (1999)	<p><u>Risk Perception</u></p> <ol style="list-style-type: none"> 1. How would you characterize the decision of whether to buy a product from this web retailer? (<i>significant opportunity / significant risk</i>) 2. How would you characterize the decision of whether to buy a product from this web retailer? (<i>high potential for loss / high potential for gain</i>) [reverse] 3. How would you characterize the decision of whether to buy a product from this web retailer? (<i>very positive situation / very negative situation</i>)
Park and Kim (2003)	<p><u>Security perception:</u></p> <p>My private information is managed securely on this site</p> <p>I am sure that payment information will be protected on this site</p> <p>This site provides detailed information about security</p> <p>I am afraid that my private information will be used in an unwanted</p>

	manner (R)
Macintosh (2002)	<p><u>Perceived category risk:</u></p> <ol style="list-style-type: none"> 1. A good hairstylist is hard to find 2. I take my time in deciding which hairstylist to go to 3. In general, regardless of who the hairstylist is, there isn't much risk involved in having my hair cut/styled (r) <p><u>Perceived specific risk:</u></p> <ol style="list-style-type: none"> 1. Having my hair cut/styled by my hairstylist involves little or no risk (r) 2. I frequently worry that my hair will not be cut/styled right by my hair stylist 3. Having my hair cut/styled by my hairstylist involves a great deal of uncertainty
Liebermann and Stashevsky (2002)	<p><u>Perceived risk elements:</u></p> <ol style="list-style-type: none"> 1. Internet credit card stealing. 2. Supplying personal information. 3. Pornography and violence. 4. Vast Internet advertising. 5. Information reliability. 6. Lack of physical contact. 7. Not supplying Internet products purchased. 8. Missing the human side in Internet purchases 9. Internet usage addiction.
Walker <i>et al.</i> (2002)	<ol style="list-style-type: none"> 1. I am concerned about the security of services where I have no contact with anyone. 2. I like to be assured that what I have requested has in fact been done. 3. I am worried that mechanical systems will not work as I want them to. 4. I am concerned about the consequences of making a mistake.

AUTHORS	TRUST INDICATORS
Jarvenpaa <i>et al.</i> (1999)	<p><u>Store trustworthiness:</u></p> <p>This store is trustworthy</p> <p>This store wants to be known as one who keeps promises and commitments</p> <p>I trust this store keeps my best interests in mind</p>
Baloglu (2002)	<p><u>Trust:</u></p> <p>I trust the management of this casino.</p> <p>I am certain the service I receive from this casino will be consistent</p>

	<p>from visit to visit</p> <p>If I make a request at this casino, not matter how trivial that request might be, it gets taken care of</p> <p>If I ask management or an employee a question, I feel they will be truthful to me</p> <p>The communication I receive from this casino (letters, promotional material, advertising) is credible</p> <p>When employees at this casino say that they will do something, I am sure it will get done</p>
Wong and Sohal (2002a)	<p><u>Trust in the retail store:</u></p> <p>Retail store can be counted on to do what is right</p> <p>Retail store understands the customer</p> <p>Retail store can be trusted at all times</p>
Mcknight <i>et al.</i> (2002)	<p><u>Trusting beliefs:</u></p> <p>I believe that (the firm) would act in my best interest</p> <p>If I required help, (the firm) would do its best to help me</p> <p>(the firm) is interested in my well being, not just its own</p> <p>(the firm) is truthful in dealing with me</p> <p>I would characterize (the firm) as honest</p> <p>(the firm) would keep its commitments</p> <p>(the firm) is sincere and genuine</p> <p>(the firm) is competent and effective in providing (its core service)</p> <p>(the firm) performs its role of giving (core service) very well</p> <p>Overall, (the firm) is a capable and proficient Internet (service) provider</p> <p>In general, (the firm) is very knowledgeable about (its services)</p>
Foster and Cadogan (2000)	<p><u>Trust in the supplier firm:</u></p> <p>XYZ is sympathetic and reassuring when you have problems</p> <p>XYZ has credibility</p>
Lynch <i>et al.</i> (2001)	<p><u>Trust:</u></p> <ol style="list-style-type: none"> 1. This site has a good reputation 2. This website is trustworthy 3. This website will keep its promises and commitments
Sirdeshmukh <i>et al.</i> (2002)	<p><u>Management policies and practices - Operational benevolence:</u></p> <ol style="list-style-type: none"> 1. This store has policies that indicate respect for the customer 2. This store has policies that favour the customer's best interest 3. This store acts as if the customer is always right <p><u>Management policies and practices – Problem-solving orientation:</u></p> <ol style="list-style-type: none"> 1. This store has practices that make returning items quick and easy 2. This store goes out of the way to solve customer problems 3. This store shows as much concern for customers returning items as

	<p>for those shopping for new ones</p> <p><u>Trust in management policies and practices:</u></p> <p>I feel that this store is:</p> <ol style="list-style-type: none"> 1. very undependable/ very dependable 2. very incompetent/ very competent 3. of very low integrity/ of very high integrity 4. very unresponsive to customers/ very responsive to customers.
Roy <i>et al.</i> (2001)	<p><u>Trustworthiness:</u></p> <ol style="list-style-type: none"> 1. This seller is very capable of performing its job. 2. This seller is known to be successful at the things it tries to do. 3. This seller has much knowledge about the work that needs done. 4. I feel very confident about this seller's skills. 5. This seller has specialised capabilities that can increase its performance. 6. This seller is well qualified. 7. This seller is very concerned about my welfare. 8. My needs and desires are very important to this seller. 9. This seller would not knowingly do anything to hurt me. 10. This seller really looks out for what is important to me. 11. This seller will go out of its way to help me. 12. This seller has a strong sense of justice. 13. I never have to wonder whether this seller will stick to its word. 14. This seller tries hard to be fair in dealing with others. 15. This seller's actions and behaviours are not very consistent. 16. I like this seller's values. 17. Sound principles seem to guide this seller's behaviour.
Wulf and Odekerken-Schröder (2003)	<p><u>Trust:</u></p> <ol style="list-style-type: none"> 1. This retailer gives me a feeling of trust. 2. This retailer gives me a trustworthy impression. 3. This retailer only wants the best for me. 4. This retailer gives me the feeling that I can count on the retailer.

AUTHORS	COMMITMENT INDICATORS
Jarvenpaa <i>et al.</i> (1999)	<p><u>Attitudes towards a store:</u> (strongly disagree/ strongly agree)</p> <p>The idea of using the Internet to shop from this store is appealing</p> <p>I like the idea of using the Internet to shop from this store</p> <p>Using the Internet to shop from this store is a good idea</p>
Baloglu (2002)	<p><u>Psychological (Emotional) Commitment</u></p> <p>I am "emotionally attached" to this casino</p>

	<p>I have a sense of belonging to this casino</p> <p>The friendliness of the staff in this casino makes me feel good</p> <p>I enjoy visiting this casino</p> <p>Although there are other casino alternatives, I still like going to this casino</p>
Wong and Sohal (2002a)	<p><u>Commitment to the retail store:</u></p> <p>Proud to tell others about shopping at the retail store</p> <p>The retail store is the best of all possible place for shopping</p> <p>Commitment to the retail store</p> <p>Intention to continue shopping at the retail store</p> <p>Expend effort on behalf of the retail store to help it succeed</p>
Lynch <i>et al.</i> (2001)	<p><u>Affect:</u></p> <ol style="list-style-type: none"> 1. How happy did you feel on this site? 2. How excited did you feel on this site? 3. How enthusiastic did you feel on this site?
Wulf and Odekerken-Schröder (2003)	<p><u>Relationship commitment:</u></p> <ol style="list-style-type: none"> 1. I consider myself as a regular customer of this retailer. 2. I feel loyal towards this retailer. 3. Even if this retailer would be more difficult to reach, I would still keep buying there. 4. I am willing to “go the extra mile” to remain a customer of this retailer.
Lu and Lin (2002)	<p><u>Customer attitude:</u></p> <ol style="list-style-type: none"> 1. I like using <i>China Times Inter@ctive</i> 2. I am favourable toward using <i>China Times Inter@ctive</i> 3. It is beneficial to use <i>China Times Inter@ctive</i> 4. It is wise to use <i>China Times Inter@ctive</i> 5. Overall, my attitude toward using <i>China Times Inter@ctive</i> is positive.

Notes:

- Only constructs in the original studies that are used in the present study, or are directly related to those used in the present study, are included in this summary.
- Indicators in the original studies that were eventually dropped from analysis are not included in this summary.

Summary of the above studies

- Baloglu (2002): identify and distinguish true loyalty from other forms of loyalty. Assess and compare both behavioural and attitudinal characteristics of loyal customers. Data were collected from customers of casinos in Las Vegas
- Bizrate.com: Developed by online firm Bizrate.com, the scale is used to seek customer feedback across a diverse range of online retailers on 10 quality dimensions. The firm considers itself to be the only comparison shopping site with ratings as a focus (Bizrate.com). According to Zeithaml *et al.* (2002), Bizrate.com's Smiley scale is one of the most widely cited scale in popular literature that has been developed by a commercial firm.
- Caruana (2002): delineate the concept of service loyalty and distinguish between service quality and customer satisfaction. Postal survey of retail banking customers indicates that customer satisfaction plays a mediating role in the effect of service quality on service loyalty. Service quality was measured based on SERVQUAL scale.
- Foster and Cadogan (2000): examine how customer loyalty is influenced by their relationships with a firm's salespersons and their overall relationship with the firm. Findings indicate that both types of relationship positively affect the probability of customer exhibiting behavioural loyalty. Data were collected through a survey of business customers of a New Zealand office products firm.
- Jarvenpaa *et al.* (1999): cross-cultural validation of an Internet consumer trust model. Present an experimental Web survey in Australia, Israel and Finland. Focus on consumer's initial development of trust in a Web-based store. Reputation and size are considered antecedents of trust while attitude, risk perception and willingness to buy are outcomes of trust.

- Jun and Cai (2001): use CIT to collect customer anecdotes of critical incidents in Internet banking. Data were content analysed to identify a total of 17 dimensions of Internet banking service quality, which are classified into 3 broad categories: customer service quality, banking service product quality, and online systems quality.
- Loiacono *et al.* (2002): presents WebQual: a scale consists of 12 dimensions aims to measure the quality of a Web site. WebQual was developed based on literature review and interviews with Web designers and Web users. The scale was tested and validated based on data collected from student samples.
- Liebermann and Stashevsky (2002): investigate the role of perceived risks as barriers to Internet and e-commerce usage. A model was proposed and tested on a sample of employed adults in Israel.
- Lu and Lin (2002): examine the effects of content, context and infrastructure on customer loyalty in the market-space. A model was tested on a student sample in an e-publishing context.
- Lynch *et al.* (2001): identify factors that affect customer purchase intention and loyalty in an e-commerce context. Data were collected through a series of experiments in 12 countries.
- Macintosh (2002): examine the relationship between perceived risk and type of service relationship (i.e., customer – service personnel and customer-firm) and outcome differences between different types of service relationships. Data were collected from a sample of college students, who were asked to assess their relationships with hair stylists and salons.

- Mcknight *et al.* (2002): develop and test a model of consumer trust in an e-commerce vendor. Trust is defined as a multi-dimensional construct with two inter-related components: trusting beliefs and trusting intentions – willingness to depend. The model is tested in the context of a hypothetical legal service Web site, using a student sample.
- Parasuraman *et al.* (1991): describe a multi-sector study in with the authors refined SERVQUAL, a well-known multiple-item scale for measuring service quality. Changes included rewording and substitutions of some items in the original scale. The refined scale was tested on 5 samples of customers from different service industries.
- Park and Kim (2003): online survey of customers of online bookstores in Korea. Results indicate that information quality, user interface quality, and security perceptions affect information satisfaction and relational benefit, which, in turn, are significantly related to site commitment and actual purchase behaviour.
- Roy *et al.* (2001): identify a strong relationship between interface quality and customer trust in a Web-based retailer. Some components of user interface quality were found to be more important than others. Data were collected through an experimental study.
- Sirdeshmukh *et al.* (2002): examine the behaviours and practices of service providers that build or deplete consumer trust and the mechanisms that converts consumer trust into value and loyalty in relational exchanges. Incorporate two facets of trust: consumer-frontline employees and consumer-management policies and practices. The proposed model was tested in the context of two different services: clothing retail and non-business air travel.

- Srinivasan *et al.* (2002): identify and measure 8 factors that can potentially influence online customer loyalty in a B2C context: customisation, contact interactivity, care, community, convenience, cultivation, choice, character. Data collected from a sample of online customers. Results indicate that all these factor, except convenience, affect e-loyalty.
- Walker *et al.* (2002): Investigate the factors that influence customer's adoption or rejection of technology-facilitated services. Data were collected through personal interviews with service customers in Australia.
- Wong and Sohal (2002a): examine the concepts of trust and commitment on two levels of retail relationships: salesperson level and store level, and test their impact on relationship quality. Data were collected through a survey of shoppers in a department store in Australia.
- Wulf and Odekerken-Schröder (2003): focus on the impact of a retailer's customer relationship building efforts (direct mail, preferential treatment, and tangible rewards) on key relationship marketing outcomes (trust, commitment, and behavioural loyalty). Data were collected from two retail consumers from Belgium and the Netherlands.
- Yang and Jun (2002): exploring perspectives of Internet purchasers and non-purchasers on different dimensions of e-service quality. Data were collected from a sample of ISP subscribers in the US.
- Zeithaml *et al.* (1996): examine the effect of service quality on customer behavioural intentions. Data collected from customers of four companies in different industries.

Appendix B: List of indicators used in prior studies to measure the research constructs

LOYALTY

1. I often visit this site.
2. I often shop from this site.
3. I intend to continue buying from this site.
4. I have been a customer of this site for ____ years
5. I would return to this Web site.
6. I will use this site whenever I have a chance in the future.
7. I will bookmark this site on my computer.
8. I will do most of my future shopping at this site.
9. I would use this site the very next time I need to shop for this product/service
10. I would consider re-purchasing from this site in the next 3 months
11. I would consider re-purchasing from this site in the next year.
12. I intend to do more business with this site in the next few years.
13. I recommend this site to other people/ to people who seek my advice.
14. I encourage others/ friends and relatives to do business with this site
15. I take pride in telling other people about my experiences on this site.
16. I say positive things about this site to other people.
17. If I saw an idea that I liked at another site, I would share this idea with this site's management.
18. I would allow my name and a positive comment I made about this site to be used in an advertisement.
19. Compared to other sites, I am more likely to tell the management of this site about problems that occur on this site.
20. I visit/try to use this site first when I need this service.
21. I seldom consider switching away from this site.
22. As long as the present service continues, I doubt that I would switch.
23. I would take some of my business to a competitor that offers better prices.
24. I would continue to do business with this site if its prices increased somewhat.
25. I would stop doing business with this site if its competitors' prices decreased somewhat.
26. I would pay more than competitors' prices for the same benefits that I am receiving from this site.
27. I often visit different web sites for specials.
28. I frequently ask others about the sites they shop from.

29. I often talk to friends about their experiences with competing websites.
30. I explored many competing Websites in order to find an alternative to this site.
31. I conducted an extensive search before making a purchase at this Web site.
32. I am very likely to try new sites.
33. I regularly read/watch advertisements to compare competing Web sites.
34. I decide on visiting competing web sites for shopping on the basis of advertisements.
35. I would be willing to buy extra products/services if suggested by this site
36. I would be willing to try new offers on this site.
37. I would be willing to display the logo and address of this site (e.g., bumper sticker)
38. I would be willing to participate, free of charge, in an advertisement for this site.
39. I would switch to a competitor if I experience a problem with this site.
40. I would complain to other customers if I experience a problem with this site.
41. I would complain to external consumer watchdog agencies, if I experience a problem with this site.
42. I would complain to the employees of this site if I experience a problem.

OVERALL SATISFACTION

1. Overall, this site meets my expectations
2. My overall experience with this site is satisfactory
3. Overall, this site is a capable and proficient Internet service provider.

OVERALL RELATIONSHIP QUALITY:

1. As a customer, I have a positive relationship with this Internet retailer

WEB SITE QUALITY

1. This site loads quickly.
2. I find it fast when using this site.
3. It takes a long time to shop at this site.
4. I do not have to wait long to get a response from this site.
5. When I use this site there is very little waiting time between my actions and the site's response.
6. Learning to operate this site is easy for me.
7. It would be easy for me to become skilful at using this site.
8. A first-time buyer can make a purchase from this site without much help.
9. This site is easy to navigate.
10. Navigation through this Web site is very intuitive.

11. This site is simple to navigate.
12. I find this site easy to use.
13. This site is user-friendly.
14. This site is very convenient to use.
15. Placing orders on this site is convenient.
16. Placing orders on this site is quick.
17. It is efficient to use this site.
18. This web site allows me to interact with it to receive tailored information.
19. This site has interactive features, which help me to accomplish my tasks.
20. I can interact with this site in order to get information tailored to my specific needs.
21. My interaction with this site is clear.
22. My interaction with this site is understandable
23. This site presents product information in an easy to understand way
24. This site presents service information in an easy to understand way.
25. All the terms and conditions (e.g., payment, warranty, return policies) were easy to read/understand.
26. The contents of the site were concise and easy to understand.
27. The cyberspace address was easy to remember.
28. On this site, it was easy to find the information I wanted.
29. This site has a search tool that enables me to locate products/services
30. This site has a tool that makes product comparison easy.
31. The organization and structure of online catalogues were logical and easy to follow.
32. The quality of this site's search engine is high.
33. This site enables me to view the merchandise from different angles.
34. This site has helpful pictures and graphics.
35. Overall, I find this site effective to use.
36. Overall, this site works very well technically.
37. This site is visually appealing/ pleasing.
38. This web site design is attractive to me.
39. Visually, this site resembles other sites I think highly of.
40. This site is very engaging.
41. I believe that this site is dynamic.
42. This site is innovative.
43. For me, shopping at this site is fun.
44. This site feels inviting to me.

45. I feel comfortable shopping at this site
46. I feel happy when I use this site.
47. I feel cheerful when I use this site.
48. I feel sociable when I use this site.
49. This web site fits with my image of the company.
50. This web site projects an image consistent with the company's image.
51. This site clearly shows how I could contact or communicate with the company.
52. Considering the home page of this site, I understand clearly what its goal is.
53. Considering the home page of this site, I understand clearly what can be done.
54. The home page of this site is easily accessible from any interior pages.
55. Each page of this site is clearly identified by the same logo.
56. I always know where I am relatively to the site structure.
57. I always know where I can go.
58. I am always able to go back easily to the pages that I had previously visited.
59. The structure of this site seems logical to me.
60. I can find easily what I am looking for on this site.
61. The search engine is always accessible.
62. The assignment of colour codes is conventional.
63. The display pages within the site are easy to read.
64. The text on the site is easy to read.
65. The site labels are easy to understand.
66. The coding is consistent across displays, menu options.
67. The display format is consistent.
68. The wording is consistent across displays.
69. Symbols for graphic data are standard.
70. It provides clarity of wording.
71. The data grouping is reasonable for easy learning.
72. The grouping of menu options is logical.
73. The ordering of menu options is logical.
74. The command names are meaningful.
75. It provides easily distinguished colours.
76. The screen density is reasonable.
77. Menus are distinct from other displayed information.
78. Groups of information are well demarcated.
79. I like the design of this site.
80. Error messages are clear and useful.
81. It always provides CANCEL option.
82. HELP is always provided.

SERVICE QUALITY

1. This Web site adequately meets my information needs.
2. The information on this web site is pretty much what I need to carry out my tasks.
3. The information on this Web site is effective.
4. The information on this Web site is complete.
5. This site offers useful information.
6. This site offers accurate information.
7. The information provided on this site is reliable.
8. This site provides up-to-date product information
9. This site provides sufficient product information.
10. The product information on this site is consistent.
11. The product information on this site is playful.
12. The product information on this site is relevant.
13. This site provides up-to-date service information
14. This site provides sufficient service information.
15. The service information on this site is consistent.
16. The service information on this site is playful.
17. The service information on this site is relevant.
18. I am satisfied with the quantity of information service of this site compared to other shopping sites.
19. I am satisfied with the quality of information service of this site compared to other shopping sites
20. Information service of this site satisfies my expectations.
21. I am satisfied with the overall information service of this site.
22. This site provides service as promised.
23. This site performs the service right the first time.
24. When this site promises to do something by a certain time, it does so.
25. This site keeps customers informed when the service will be provided.
26. This site provides services at the promised time.
27. When the Internet retailer promised to e-mail or call me by a certain time, it did so.
28. This site provides prompt service to customers.
29. This site is willing to help customers.
30. This site is responsive to my requests.
31. This site is responsive to any problems that I encounter.
32. This site is dependable in handling customer service problems.
33. When I have a problem, this site shows a sincere interest in solving it.

34. This site is sympathetic and reassuring when I have problems.
35. This site goes out of its way to solve customer problems.
36. This site gives customers individual attention.
37. This site makes me feel that I am a unique customer.
38. This site insists on error-free records.
39. This site keeps its records accurately.
40. The goods that I purchased in the past from this site have been delivered on time.
41. The quantity and quality of the product/service I received was exactly the same as that I ordered.
42. The product/service I ordered was delivered to me within the time promised by the Internet retailer.
43. It is easy to obtain a status update on my order/booking.
44. This site is effective in tracking up my order.
45. The billing process was handled accurately.
46. I have experienced problems with billing with respect to my earlier purchases at this site.
47. This site makes purchase recommendations that match my needs.
48. I receive reminders about making purchases from this site.
49. This site sends me information that is relevant to my purchases.
50. This site enables me to order products that are tailor-made for me.
51. The advertisements and promotions that this web site sends to me are tailored to my situation.
52. I believe that this site is customised to my needs.
53. I feel that this site appreciates my business.
54. I feel that this site makes an effort to increase its share of my business.
55. This site proactively cultivates its relationship with me.
56. The return policies laid out in this site are customer friendly.
57. This site has policies that indicate respect for the customer.
58. This site has policies that favour the customer's best interests.
59. This site acts as if the customer is always right.
60. This site has practices that make returning items quick and easy.
61. This site shows as much concern for customers returning items as for those shopping for new ones.
62. I believe that this site takes good care of its customers.
63. This site provides a "one-stop shop" for my shopping.
64. This site satisfies a majority of my online shopping needs.
65. The choice of products at this site is limited.

66. This site carries a wide selection of products to choose from.
67. I am satisfied with the depth of the selection that this site offers.
68. This site offers special products.
69. This site offers unique products.
70. If I want to, I could easily contact a customer service representative over the phone.
71. The Web site shows its street and e-mail addresses, and phone and fax numbers.
72. The Internet retailer offers multiple ordering options such as phone or mail options.
73. For more information, I could turn to the Internet retailer's chat rooms, bulletin boards, or others.
74. This site has a message area for customer questions and comments.
75. I received a personal "thank you" note via email or other media after I placed an order.
76. In general, this site is very knowledgeable about its services.
77. This site is competent and effective in providing its services.
78. This site performs its services very well.
79. This site is very competent.

VALUE PERCEPTION

1. It is beneficial to use this site.
2. I received special rewards and discounts from doing business with the Internet retailer.
3. I will receive credible customer service from this site.
4. Compared to other sites, this site offers quality products/services.
5. This site offers reasonable prices compared to similar sites.
6. This site offers good value for money.
7. For the prices that I pay at this site, I would say that shopping at this site is a good deal.
8. For the time that I spent in order to shop at this site, I would say that shopping at this site is reasonable.
9. For the efforts involved in shopping at this site, I would say that shopping at this site is worthwhile.
10. At this site, I am able to reduce my shopping time.
11. At this site, I am able to reduce my shopping efforts.
12. At this site, I am able to shop for products/services that are hard to shop at other sites.
13. Overall, my shopping experience at this site is of good value.

14. This site often sends mailings to regular customers.
15. This site rewards regular customers for their patronage.
16. This site thanks regular customers for their patronage by providing gifts
17. This site often informs regular customers through brochures.
18. This site regularly keeps regular customers informed on novelties.
19. This site treats regular customers differently than non-regular customers.
20. This site provides a faster service to regular customers than to non-regular customers.
21. This site makes a greater effort for regular customers than for non-regular customers.
22. This site offers better service to regular customers than to non-regular customers.

SAFETY PERCEPTION

5. I feel secure in providing sensitive information (e.g., credit card numbers) for online purchase.
6. I feel the risk associated with online purchase was low.
7. A good shopping site is hard to find.
8. I take my time in deciding which site to use.
9. I am concerned about the security of services where I have no contact with anyone.
10. I like to be assured that what I have requested has in fact been done.
11. I am worried that mechanical systems will not work as I want them to.
12. I am concerned about the consequences of making a mistake.
13. This site makes customers feel safe in their transactions.
14. I feel safe in my transactions with this site.
15. The decision of whether to buy a product from this web retailer is a significant risk/ significant opportunity.
16. The decision of whether to buy a product from this web retailer is of high potential for loss / high potential for gain.
17. The decision of whether to buy a product from this web retailer is a very negative situation/ very positive situation.
18. This site provides detailed information about security.
19. My private information is managed securely on this site.
20. I am sure that payment information will be protected on this site.
21. I trust this site to keep my personal information safe.
22. I trust the web site administrators will not misuse my personal information.
23. Shopping at this site involves little risk.
24. I frequently worry about my shopping at this site.

25. The return/cancellation policies laid out in this site are customer friendly.

TRUST

1. I believe this site is a good site.
2. I feel I can count on this Internet retailer.
3. This Internet retailer can be counted on to do what is right.
4. This Internet retailer has customer's best interests at heart.
5. I trust this store keeps my best interests in mind.
6. I believe this Internet retailer would act in my best interests.
7. This Internet retailer only wants the best for me.
8. If I need help, this Internet retailer would do its best to help me.
9. This Internet retailer is interested in my wellbeing, not just its own.
10. This Internet retailer is concerned about my welfare.
11. My needs and desires are very important to this Internet retailer.
12. This Internet retailer would not knowingly do anything to hurt me.
13. This Internet retailer really looks out for what is important to me.
14. This site shows how long the Internet retailer has been in this business.
15. This Internet retailer has credibility.
16. This Internet retailer has a good reputation.
17. This Internet retailer gives me a feeling of trust.
18. This Internet retailer gives me a trustworthy impression.
19. This Internet retailer is trustworthy.
20. This Internet retailer can be trusted at all time.
21. I trust the management of this site.
22. This Internet retailer is truthful in dealing with me.
23. I would characterise this Internet retailer as honest.
24. This Internet retailer is sincere and genuine.
25. This Internet retailer has high integrity
26. This Internet retailer would keep its commitments.
27. This Internet retailer wants to be known as one who keeps promises and commitments.
28. This Internet retailer will keep its promises and commitments.
29. I never have to wonder whether this Internet retailer will stick to its word.
30. I am certain the service I receive from this Internet retailer will be consistent from time to time.
31. The communication I receive from this Internet retailer is credible.

32. This Internet retailer understands its customers.
33. This Internet retailer is dependable.
34. This Internet retailer is known to be successful at the things it tries to do.
35. This Internet retailer has much knowledge about the work that needs done.
36. I am confident about this Internet retailer's ability.
37. This Internet retailer has specialised capabilities that can increase its performance.
38. This Internet retailer is well qualified.
39. This Internet retailer will go out of its way to help me.
40. This Internet retailer has a strong sense of justice.
41. This Internet retailer tries hard to be fair in dealing with others.
42. The actions and behaviours of this Internet retailer are very consistent.
43. I like this Internet retailer's value.
44. Sound principles seem to guide this Internet retailer's behaviour.

COMMITMENT

1. I like using this site.
2. I am favourable towards using this site.
3. I feel happy on this site.
4. I feel excited on this site.
5. I feel enthusiastic on this site.
6. I enjoy visiting this site.
7. This site has a personality.
8. It is wise to use this site.
9. I really like doing business with this site.
10. The idea of shopping at this site is appealing.
11. I like the idea of shopping at this Internet retailer.
12. I am "emotionally attached" to this Internet retailer.
13. I have a sense of belonging to this Internet retailer.
14. In comparison to other sites I know, this site is growing in popularity.
15. This site is different from competing sites.
16. Although there are other alternative Internet retailers, I still like going to this one.
17. This site is the best of all possible places for shopping.
18. To me, this site is clearly the best site to do business with.
19. I am committed to this Internet retailer.
20. I am willing to "go the extra mile" to remain a customer of this retailer.

21. I am willing to expend efforts on behalf of the Internet retailer to help its succeed.
22. I believe that this is my favourite Web site.
23. I consider this site my first choice when I need this product/service.
24. This site is the primary place where I consider when I need this product/ service.
25. I consider myself as a regular customer of this site.
26. I feel loyal towards this Internet retailer.
27. Even if this Internet retailer would be more difficult to reach, I would still keep buying here.
28. Overall, my attitude toward using this site is positive.

Appendix C: List of indicators used in this research

LOYALTY

1. I usually visit this Web site first when I need to shop online for this type of product/service.
2. I intend to continue buying from this Web site.
3. I intend to do more business with this company in the next few years.
4. I often recommend this Web site to other people.
5. I take pride in telling other people about my experiences on this Web site.
6. I say positive things about this Web site to other people.
7. I am willing to provide this company with my comments/suggestions.
8. I am willing to provide this company with my testimonials.
9. As long as the present service continues, it is unlikely that I would switch to another Web site.
10. If I found another Web site that offers better prices, I would take some of my business there.
11. I would continue to buy from this Web site even if its prices increased somewhat.
12. I often visit other similar Web sites for specials.
13. I would not shop at any other Web sites for products/services that are available on this site.
14. I often explore many different Web sites in order to find an alternative to this site.
15. I prefer this Web site to other similar sites.
16. I would be willing to buy extra products/services that are suggested by this Web site.
17. I would be willing to try new offers on this Web site.
18. If I experienced a problem while using this Web site, I would switch to another site.
19. If I experienced a problem while using this Web site, I would complain to the company.
20. I am willing to give this company a second chance when there is a problem that leads to my dissatisfaction.

SATISFACTION

1. Overall, this Web site consistently meets my expectations.
2. My overall experience with this Web site is satisfactory.

3. Overall, this company is a capable and proficient service provider

RELATIONSHIP QUALITY

1. As a customer, I have a positive relationship with this company.

WEB SITE QUALITY

- a. This Web site loads quickly.
- b. While I use this Web site there is very little waiting time between my actions and the site's response.
- c. I find this Web site easy to use.
- d. The information presented on this Web site is easy to read.
- e. The information provided on this Web site is easy to understand.
- f. On this Web site, it is easy to find the information I want.
- g. Comparison-shopping is easy on this Web site.
- h. This Web site has sufficient search functions.
- i. This Web site has effective search functions.
- j. This Web site has helpful pictures and graphics.
- k. This Web site is visually appealing.
- l. For me, shopping at this Web site is fun.
- m. I feel comfortable shopping at this Web site.
- n. This Web site clearly shows how I could communicate with the company by different means (email, phone, fax etc).
- o. This Web site is technically reliable.
- p. Overall, this Web site works very well technically.

SERVICE QUALITY

1. This company performs its service right the first time.
2. This company keeps me informed when the service will be provided.
3. This company delivers service at the time it promises.
4. This company is responsive to my requests.
5. This company is responsive to my complaints.
6. This company is dependable in handling customer service problems.
7. When I have a problem, this company shows a sincere interest in solving it.
8. This company provides easy access to human customer support.
9. This company keeps its records accurately.
10. The terms and conditions laid out by this company are customer friendly and fair.
11. This Web site carries a wide selection of different offers to choose from.

12. I am satisfied with the depth of the selection that this Web site offers.
13. I am satisfied with the quality of information on this Web site.
14. I am satisfied with the quantity of information on this Web site.
15. I know what to expect from this company every time I use its Web site.

VALUE PERCEPTION

1. This Web site has quality offers.
2. This Web site often has special offers that are valuable to me.
3. This Web site offers good value for money.
4. For the prices that I pay at this Web site, I would say that shopping at this site is a good deal.
5. I am able to reduce my shopping time at this Web site, compared to similar sites that I know.
6. I am able to reduce my shopping efforts at this Web site, compared to similar sites that I know.
7. The benefits that I receive from using this Web site significantly outweigh the costs.
8. Overall, my shopping experience at this Web site is of good value.

SAFETY PERCEPTION

1. I know this Web site well.
2. Even though I usually have no contact with anyone from this company, I am sure that what I have requested will be done correctly.
3. I feel safe in my transactions at this Web site.
4. The return/cancellation policies of this company are customer-friendly and fair.
5. It is usually easy for me to make a purchase decision when I use this Web site.
6. I am satisfied with the information about security provided on this Web site.
7. I believe that payment information is well protected on this Web site.
8. I trust that this company will not misuse my personal information.
9. Shopping at this Web site involves little risk.

TRUST

1. This company has a good reputation.
2. I feel this company can be counted on to do what is right.
3. I feel this company is fair in dealing with me.
4. I feel this company is truthful in dealing with me.
5. I would characterise this company as honest

6. This company gives me a trustworthy impression.
7. I believe that this company will keep its promises and commitments.
8. I often have to wonder whether this company will stick to its words.
9. The communication I receive from this company is credible
10. I am confident about this company's integrity.

COMMITMENT

1. I enjoy visiting this Web site.
2. I really like doing business with this company.
3. To me, this company is clearly the best to do business with.
4. This is my favourite Web site.
5. I have a sense of belonging to this Web site.
6. I believe that this Web site is better than its competitors.
7. I am a regular customer of this Web site.
8. I consider myself a loyal customer of this Web site.
9. I believe I can benefit from a long-term relationship with this company.
10. I am interested in a long-term relationship with this company.

Appendix D: The survey questionnaire

Online Consumer Survey

Please rate your agreement with the following statements, with 0 being “don’t know”, 1 being “strongly disagree”, and 7 being “strongly agree”.

	Don't know	Strongly Disagree	Disagree	Mildly Disagree	Neutral	Mildly Agree	Agree	Strongly Agree
	0	1	2	3	4	5	6	7
Section 1: About the Web site								
1. This Web site loads quickly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. While I use this Web site there is very little waiting time between my actions and the site's response.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I find this Web site easy to use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The information presented on this Web site is easy to read.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. The information provided on this Web site is easy to understand.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. On this Web site, it is easy to find the information I want.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Comparison-shopping is easy on this Web site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. This Web site has sufficient search functions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. This Web site has effective search functions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. This Web site has helpful pictures and graphics.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. This Web site is visually appealing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. For me, shopping at this Web site is fun.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. I feel comfortable shopping at this Web site	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. This Web site carries a wide selection of different offers to choose from.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. I am satisfied with the depth of the selection that this Web site offers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. I am satisfied with the quality of information on this Web site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. I am satisfied with the quantity of information on this Web site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. This Web site has quality offers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. This Web site often has special offers that are valuable to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

20. This Web site offers good value for money.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. For the prices that I pay at this Web site, I would say that shopping at this site is a good deal.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. I am able to reduce my shopping time at this Web site, compared to similar sites that I know.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. I am able to reduce my shopping efforts at this Web site, compared to similar sites that I know.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. The benefits that I receive from using this Web site significantly outweigh the costs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. Overall, my shopping experience at this Web site is of good value.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. This Web site clearly shows how I could communicate with the company by different means (email, phone, etc).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. This Web site is technically reliable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. Overall, this Web site works very well technically.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. Overall, this Web site consistently meets my expectations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. I know this Web site well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. It is usually easy for me to make a purchase decision when I use this Web site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. I feel safe in my transactions at this Web site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. I am satisfied with the information about security provided on this Web site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. I believe that payment information is well protected on this Web site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. Shopping at this Web site involves little risk.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36. My overall experience with this Web site is satisfactory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37. I enjoy visiting this Web site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38. This is my favourite Web site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39. I have a sense of belonging to this Web site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40. I believe that this Web site is better than its competitors.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41. I am a regular customer of this Web site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42. I consider myself a loyal customer of this Web site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43. I usually visit this Web site first when I shop online for this type of product/service.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44. I intend to continue buying from this Web site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45. I often recommend this Web site to other people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46. I take pride in telling other people about my experiences on this Web site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47. I say positive things about this Web site to other people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48. As long as the present service continues, it is unlikely that I would switch to another Web site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49. If I found another Web site that offers better	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

prices, I would take some of my business there.

50. I often visit other similar Web sites for specials.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
51. I would continue to buy from this Web site even if its prices increased somewhat.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52. I would not shop at any other Web sites for products/services that are available on this site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
53. I often explore many different Web sites in order to find an alternative to this site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
54. I prefer this Web site to other similar sites.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
55. I would be willing to buy extra products/services that are suggested by this Web site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
56. I would be willing to try new offers on this Web site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
57. If I experienced a problem while using this Web site, I would switch to another site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
58. If I experienced a problem while using this Web site, I would complain to the company.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section 2: About the company

	0	1	2	3	4	5	6	7
59. This company performs its service right the first time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
60. This company keeps me informed when the service will be provided.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
61. This company delivers service at the time it promises.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
62. This company is responsive to my requests.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
63. This company is responsive to my complaints.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64. This company is dependable in handling customer service problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65. When I have a problem, this company shows a sincere interest in solving it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
66. This company provides easy access to human customer support.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
67. This company keeps its records accurately.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
68. I know what to expect from this company every time I use its Web site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
69. Even though I usually have no contact with anyone from this company, I am sure that what I have requested will be done correctly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
70. The terms and conditions laid out by this company are customer friendly and fair.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
71. The return/cancellation policies of this company are customer-friendly and fair.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
72. This company has a good reputation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
73. I feel this company can be counted on to do what is right.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
74. This company gives me a trustworthy impression.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
75. I feel this company is fair in dealing with me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

76. I feel this company is truthful in dealing with me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
77. I would characterise this company as honest.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
78. I believe that this company will keep its promises and commitments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
79. I trust that this company will not misuse my personal information.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
80. I often have to wonder whether this company will stick to its words.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
81. The communication I receive from this company is credible.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
82. I am confident about this company's integrity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
83. I really like doing business with this company.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
84. Overall, this company is a capable and proficient service provider.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
85. To me, this company is clearly the best to do business with.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
86. I intend to do more business with this company in the next few years.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
87. I am willing to provide this company with my comments/suggestions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
88. I am willing to provide this company with my testimonials.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
89. I am willing to give this company a second chance when there is a problem that leads to my dissatisfaction.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
90. As a customer, I have a positive relationship with this company.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
91. I believe I can benefit from a long-term relationship with this company	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
92. I am interested in a long-term relationship with this company	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appendix E - Skewness, Kurtosis and Normality Statistics for the measured variables

E1 - Loyalty

Factor	Indicator	Skewness	Kurtosis	Kolmogorov-Smirnov	
				Statistic	Sig
Loyal1	LO1: I usually visit this Web site first when I need to shop online for this type of product/service.	-0.49	-0.71	0.17	0.001
	LO2: I intend to continue buying from this Web site.	-1.04	2.12	0.28	0.001
	LO4: I often recommend this Web site to other people.	-0.47	0.39	0.17	0.001
	LO5: I take pride in telling other people about my experiences on this Web site.	-0.25	-0.21	0.20	0.001
	LO6: I say positive things about this Web site to other people.	-0.65	0.28	0.17	0.001
	LO15: I am a regular customer of this Web site.	-0.35	-0.56	0.18	0.001
Loyal2	LO11: I would continue to buy from this Web site even if its prices increased somewhat.	0.04	-0.78	0.15	0.001
	LO13: I would not shop at any other Web sites for products/services that are available on this site.	0.25	-0.75	0.13	0.001
Loyal3	LO16: I would be willing to buy extra products/services that are suggested by this Web site.	-0.24	0.09	0.20	0.001
	LO17: I would be willing to try new offers on this Web site.	-0.59	0.83	0.19	0.001
Loyal4	LO7: I am willing to provide this company with my comments/suggestions.	-0.75	0.87	0.25	0.001
	LO8: I am willing to provide this company with my testimonials.	-0.26	0.07	0.19	0.001
	LO20: I am willing to give this company a second chance when there is a problem that leads to my dissatisfaction.	-0.76	0.80	0.18	0.001

E2 - Service Quality

Factor	Indicator	Skewness	Kurtosis	Kolmogorov-Smirnov	
				Statistic	Sig
RetSel	SQ11: This Web site carries a wide selection of different offers to choose from.	-1.07	1.41	0.27	0.001
	SQ12: I am satisfied with the depth of the selection that this Web site offers.	-1.24	2.43	0.28	0.001
	SQ13: I am satisfied with the quality of information on this Web site.	-1.36	2.25	0.31	0.001
	SQ14: I am satisfied with the quantity of information on this Web site.	-1.37	1.95	0.29	0.001
SerDel	SQ1: This company performs its service right the first time.	-0.31	-0.44	0.22	0.001
	SQ2: This company keeps me informed when the service will be provided.	-0.37	-0.16	0.21	0.001
	SQ3: This company delivers service at the time it promises.	-0.34	0.02	0.18	0.001
	SQ4: This company is responsive to my requests.	-0.09	-0.59	0.19	0.001
	SQ10: The terms and conditions laid out by this company are customer friendly and fair.	-0.17	-0.92	0.24	0.001
	SQ15: Overall, this company is a capable and proficient service provider.	-0.25	-0.90	0.25	0.001
CustSup	SQ4: This company is responsive to my requests.	-0.86	-0.59	0.19	0.001
	SQ5: This company is responsive to my complaints.	0.72	0.58	0.29	0.001
	SQ6: This company is dependable in handling customer service problems.	0.63	-0.29	0.27	0.001
	SQ7: When I have a problem, this company shows a sincere interest in solving it.	0.64	0.20	0.26	0.001
	SQ8: This company provides easy access to human customer support.	0.37	-0.24	0.24	0.001

E3 - Website Quality

Factor	Indicator	Skewness	Kurtosis	Kolmogorov-Smirnov	
				Statistic	Sig
Speed	WQ1: This Web site loads quickly.	-1.48	2.01	0.35	0.001
	WQ2: While I use this Web site there is very little waiting time between my actions and the site's response.	-1.58	2.63	0.33	0.001
EoU	WQ3: I find this Web site easy to use.	-1.59	3.02	0.34	0.001
	WQ4: The information presented on this Web site is easy to read.	-1.58	3.76	0.34	0.001
	WQ5: The information provided on this Web site is easy to understand.	-1.81	5.89	0.34	0.001
	WQ6: On this Web site, it is easy to find the information I want.	-1.39	2.05	0.31	0.001
Search	WQ6: On this Web site, it is easy to find the information I want.	-1.39	2.05	0.31	0.001
	WQ8: This Web site has sufficient search functions.	-1.26	1.15	0.30	0.001
	WQ9: This Web site has effective search functions.	-1.36	2.02	0.29	0.001
Perform	WQ13: This Web site is technically reliable.	-1.10	1.86	0.27	0.001
	WQ14: Overall, this Web site works very well technically.	-1.10	1.68	0.29	0.001
Appear	WQ10: This Web site has helpful pictures and graphics.	-1.14	1.28	0.26	0.001
	WQ11: This Web site is visually appealing.	-1.24	1.46	0.27	0.001

E4 - Value Perception

Factor	Indicator	Skewness	Kurtosis	Kolmogorov-Smirnov	
				Statistic	Sig
Quality	PV1: This Web site has quality offers.	-0.75	0.35	0.25	0.001
	PV2: This Web site often has special offers that are valuable to me.	-0.40	-0.33	0.19	0.001
Price	PV3: This Web site offers good value for money.	-0.88	0.50	0.26	0.001
	PV4: For the prices that I pay at this Web site, I would say that shopping at this site is a good deal.	-0.99	0.97	0.26	0.001
TimeEff	PV5: I am able to reduce my shopping time at this Web site, compared to similar sites that I know.	-0.36	-0.28	0.19	0.001
	PV6: I am able to reduce my shopping efforts at this Web site, compared to similar sites that I know.	-0.41	-0.11	0.19	0.001
CostBen	PV7: The benefits that I receive from using this Web site significantly outweigh the costs.	-0.49	0.20	0.17	0.001
Experience	PV9: For me, shopping at this Web site is fun	-0.65	0.19	0.23	0.001
	PV10: I feel comfortable shopping at this Web site	-1.31	2.24	0.30	0.001
	PV11: I enjoy visiting this Web site	-0.78	0.34	0.29	0.001

E5 - Commitment

Factor	Indicator	Skewness	Kurtosis	Kolmogorov-Smirnov	
				Statistic	Sig
AttPred - PersAttach	CO4: This is my favourite Web site.	-0.21	-0.39	0.23	0.001
	CO5: I have a sense of belonging to this Web site.	-0.33	-0.07	0.26	0.001
- RelAtt	CO6: I believe that this Web site is better than its competitors.	-0.27	-0.13	0.18	0.001
	CO7: I prefer this Web site to other similar sites.	-0.46	0.10	0.16	0.001
RelOrient	CO8: I believe I can benefit from a long-term relationship with this company.	-0.26	-0.10	0.20	0.001
	CO9: I am interested in a long-term relationship with this company.	-0.38	-0.13	0.22	0.001

E6 - Trust

Factor	Indicator	Skewness	Kurtosis	Kolmogorov-Smirnov	
				Statistic	Sig
Trust	TR1: This company has a good reputation.	0.26	-1.15	0.21	0.001
	TR2: I feel this company can be counted on to do what is right.	-0.18	-0.85	0.23	0.001
	TR3: I feel this company is fair in dealing with me.	-0.28	-0.47	0.23	0.001
	TR4: I feel this company is truthful in dealing with me.	-0.34	-0.27	0.23	0.001
	TR5: I would characterise this company as honest.	-0.37	-0.41	0.25	0.001
	TR6: This company gives me a trustworthy impression.	-0.52	0.16	0.25	0.001
	TR7: I believe that this company will keep its promises and commitments.	-0.61	0.42	0.26	0.001
	TR9: The communication I receive from this company is credible.	-0.04	-1.12	0.22	0.001
	TR10: I am confident about this company's integrity.	-0.14	-1.01	0.25	0.001
	TR11: Even though I usually have no contact with anyone from this company, I am sure that what I have requested will be done correctly.	-0.42	0.08	0.20	0.001
	TR12: I trust that this company will not misuse my personal information.	-0.96	1.30	0.29	0.001

E7 - Safety Perception

Factor	Indicator	Skewness	Kurtosis	Kolmogorov-Smirnov	
				Statistic	Sig
Fam	PR1: I know this Web site well.	-0.48	-0.26	0.17	0.001
	PR5: It is usually easy for me to make a purchase decision when I use this Web site.	-0.86	0.70	0.26	0.001
Sec	PR2: Shopping at this Web site involves little risk.	-0.70	0.11	0.26	0.001
	PR3: I feel safe in my transactions at this Web site.	-1.12	1.48	0.31	0.001
	PR6: I am satisfied with the information about security provided on this Web site.	-1.08	1.30	0.31	0.001
	PR7: I believe that payment information is well protected on this Web site.	-0.98	1.07	0.30	0.001