The Interrelationships among e-Service Quality, Store Images, Trust and Loyalty: A Study of Online Stores in Taiwan

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ABSTRACT

Although no longer believed to be the revolution previously conceived, the Internet remains a critical channel for selling most goods and services. Therefore, generating revenue through online purchasing is one of the key issues for e-commerce practitioners. In e-commerce, loyal customers are considered extremely valuable. Loyalty is generally attributed to service quality and store image. Since online transactions involve many uncertainties for the customer, trust is a condition for exchange. The present study empirically investigates the service quality, store image, trust and customer loyalty in an e-commerce context. In this study, we use the structural equation modeling (SEM) to analyze the relationship among the service quality, store images, trust and customer loyalty in the Online Store. The result of this study showed that: (1) There is a positive relationship between service quality and trust. (2) There is a positive relationship between service quality and customer loyalty. (3) There is a positive relationship between store images and trust. (4) There is a positive relationship between store images and customer loyalty. (5) There is a positive relationship between trust and customer loyalty.

INTRODUCTION

Although no longer believed to be the revolution previously conceived, the Internet remains a critical channel for selling most goods and services. Companies such as Yahoo distribute products and services only through Web channels, and in fact all companies are creating Web channels as sources for pre-purchase information (houses), alternative ways to buy products (retailers such as Kingstone, Sony, and Apple), approaches to expand services (travel agency), and ways to capture time-conscious and upscale consumers (online banking and online telecommunication services).

Therefore, generating revenue through an online store is one of the key issues for e-commerce practitioners. For this reason, the factors influencing the customer loyalty to rebuy online are being stressed by researchers. Furthermore, customer loyalty is considered important because of its positive effect on long-term profitability. According to Reichheld and colleagues (Reichheld et al., 2000; Reichheld and Schefter, 2000), the high costs of acquiring new e-customers can lead to unprofitable customer relationships for up to three years. As a consequence, it is crucial for online companies to create a loyal customer base, as well as to monitor the profitability of each segment (Reinartz and Kumar, 2002). However, few companies seem to succeed in creating e-loyalty, and little is known about the mechanisms involved in generating customer loyalty on the Internet.

Trust has been brought forward as a precondition for patronage behavior (Pavlou, 2003) and the development of long-term customer relationships (Doney and Cannon, 1997; Singh and Sirdeshmukh, 2000). The role of trust could be even more important in an e-Commerce setting, since e-customers do not deal directly with the company, or its staff (Urban et al., 2000). In a recent study, for sample, Corritore et al. (2003) suggest a strong positive effect of trust on loyalty to online firms, but theoretical foundations as well as empirical confirmations are lacking (Anderson and Srinivasan, 2003).

So far, most of studies about store image have been focused on retail store or hypermarket, relatively little attention has been paid to the overall image of the online store. In empirical marketing researches, several researchers have been able to link store image to customer loyalty. It is plausible to assume that these relationships would carry over
to online environments. Another important reason to study the impact of online store image is that image is, at least to a certain extent, under the direct control of the shop owner and/or the website designer. Therefore, in this study, we want to investigate the relationships with service quality, image, trust and loyalty on online store.

**LITERATURE REVIEW**

**e-Service quality**

Extensive research on traditional service quality (SQ) has been conducted during the past 20 years (see Parasuraman and Zeithaml 2002 for a review). By traditional service quality (SQ) we are referring to the quality of all non-Internet-based customer interactions and experiences with companies. Early scholarly writings on SQ (Lehtinen and Lehtinen, 1982; Lewis and Booms, 1983; Parasuraman, Zeithaml, and Berry, 1985) suggested that SQ stems from a comparison of what customers feel a company should offer (i.e., their expectations) with the company’s actual service performance. Using insights from these studies as a starting point, Parasuraman, Zeithaml, and Berry (1988, 1991) conducted empirical studies in several industry sectors to develop and refine SERV-QUAL, a multiple-item instrument to quantify customers’ global (as opposed to transaction-specific) assessment of a company’s SQ.

But, a noteworthy feature of the extant SQ literature is that it is dominated by people-delivered services. As such, whether the preceding conclusions extend to e-SQ contexts and what the similarities and differences are between the evaluative processes for SQ and e-SQ are open questions. One author who has extended the SERVQUAL conceptualization to the electronic context is Gefen (2002), who found that the five service quality dimensions collapse to three with online service quality: (a) tangibles; (b) assurance; and (c) empathy. In that research, tangibles were found to be the most important dimension in increasing customer loyalty and the combination dimension most critical in increasing customer trust. And some academic researchers have developed scales to evaluate Web sites.

The extant literature and extensive focus group research in Zeithaml, Parasuraman, and Malhotra’s (2000) study suggested that customers’ assessment of a Web site’s quality includes not only experiences during their interactions with the site but also postinteraction service aspects (i.e., fulfillment, returns). As such, e-SQ is defined broadly to encompass all phases of a customer’s interactions with a Web site: the extent to which a Web site facilitates efficient and effective shopping, purchasing, and delivery.

Parasurman, Zeithaml and Malhotra (2005) conducted exploratory and confirmatory factor analysis, then labeled and defined E-S-QUAL as follows: efficiency, fulfillment, system availability, privacy.

Moreover, Parasurman et al. (2005) also analyzed the items for measuring the quality of recovery service provided by Web site and created an e-recovery service quality (E-RecS-QIAL) on three dimensions: responsiveness, compensation, contact.

As in the case of E-S-Qual, we select efficiency, fulfillment, system availability and privacy. On the other hand, E-RecS-QIAL was only occurred in customers who purchased the defected productions, so in this study, we eliminated it.

**Store image**

Martineau (1958) was the first person who application image idea in the retail sales domain, and he called the force which can effect the customer decision-making as “store personality or image”. He also given definition with store personality or image that “the customer defined the store approach not only functional qualities, but also effect by aura of psychological attributes influence”.

Dichter (1985) stressed that image certainly was not referred to the individual characteristic or the quality, but the store overall image in the customer heart. Berman and Evans (1995) were defined the store image as the functional and emotional mix.

Heijden and Verhagen (2004) in order to develop an appropriate measure for online store image, they relied on the relatively established literature on “traditional” store image, which is defined as the “personality” the store presents to the public or “a complex of meanings and relationships serving to characterize the store to the populace” (Hirschman et. al., 1978) and “the complex of a consumer’s perceptions of a store on functional attributes and emotional
attributes” (Houston and Nevin, 1981). Consumers perceive store on a number of dimension, usually called components or attribute, which collectively make store image, so store image is closely related to the multi-attribute model.

Lindquist (1974) defines store images as a “structure of some sort that is tying together the dimensions that are at work” and conceptualizes store images as nine key attribute denominations: merchandise, service, clientele, physical facilities, convenience, promotion, store ambience, institutional factors, and post-transaction satisfaction. Dickson and Albaum (1977) refined both instrumentations for retail store image and ultimately arrive at the following dimensions: prices, products, store layout and facilities, service and personnel, promotion and “others.” An instrument containing 29 items (also semantic differentials) was developed and analyzed on reliability and validity. In predicting retail trade, Nevin and Houston (1980) have generated three dimensional images of the retail stores with fourteen variables: assortment, facilities, and market posture. These attributes were organized by the customer, and embodied in their consciousness system to help them how to decide the store policy and operation expectation.

Chen (2006) discussed the relationship between online store image and purchasing intention, divided store image into six dimensions: web skill ability, popularity, product value, convenience, security and after-sale service. Synthesize above literature, we used three dimensions: popularity, product value and convenience to measure online store image.

**Trust**

The trust concept has been studied in a number of disciplines, and various definitions have been proposed (Lewicki et al., 1998). Doney and Cannon (1997) defined trust as the perceived credibility and benevolence of a target of trust (cf. Kumar, Scheer, and Steenkamp, 1995). According to Ganesan (1994), trust is the extent to which the customer believes that the vendor has intentions and motives that are beneficial to the customer (Lewin & Johnston, 1997). Trust is the belief that another can be relied upon with confidence in order to perform role responsibilities in a fiduciary manner and is manifest in a willingness to voluntarily increase one’s vulnerability to another (Smith, 1997). A commonly used definition of trust is that of Moorman et al. (1992), who define it as the willingness to depend on an exchange partner in whom one has confidence. This definition is in accordance with early research, which associated trust with a “confidence in the other’s intentions and motives” (Lewicki et al., 1998). It is also echoed by recent research in offline and online services (e.g. Cheung and Lee, 2001), which defines trust as the “degree of confidence or certainty the […] customer has in […] exchange options” (Zeithaml and Biter, 2000). Therefore, trust will be defined as the degree of confidence customers have in online exchanges, or in the online exchange channel. Besides, trust is consistently related to the vulnerability of the trustor (Singh and Sirdeshmukh, 2000), because without vulnerability of the trustor upon the trustee, trust becomes irrelevant. In business researches, trust has been found to be important for building and maintaining long-term relationships (e.g. Rousseau et al., 1998; Singh and Sirdeshmukh, 2000).

Electronic exchanges are believed to present numerous risks to customers (Granbner-Krauter and Kalusha, 2003), while trust appears to be perceived level of risk is high (Anderson and Srinivasan, 2003). Purchasing online is considered risky, since customers lack direct contact with the company, i.e. through sales personnel or the physical store (Reichheld and Scheffer, 2000), and have to hand over sensitive information, such ad credit card numbers, in order to complete the transaction. The absence of interpersonal interaction also suggests that online trust is mainly cognitive, i.e. based on customers’ judgments of the reliability and capabilities of the merchant or the exchange channel, and not affective trust, i.e. founded on a bond among individuals (McAllister, 1995).

**Loyalty**

Oliver, Rust and Varki (1997) believed that the customer loyalty meant that the customer maybe come under the environmental effect or the marketing technique induce their possibly latent transformation behavior, but they wouldn’t change their repeat purchase commitment and further purchase intention customer with preference commodity or service. Bowen and Shoemaker (1998) thought the customer loyalty was the customer once more visiting possibility and wanted to participate in this enterprise.

Oliver (1999) has been defined customer loyalty as “a deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing effort having the potential to cause switching behavior”. This general definition
appear to apply to e-loyalty as well. Another, briefer and more specific definition is provided by Anderson and Srinivasan (2003), who define e-loyalty as “the customer’s favorable attitude toward and electronic business, resulting in repeat purchasing behavior”.

The majority of early studies define loyalty as the repeat purchasing of a particular service or product (Homburg and Giering, 2001). This approach has been long criticized by numerous scholars for the missing differentiation between true and spurious loyalty. In order to avoid the pitfall of equating repeat purchasing with loyalty, the combination of attitudinal and behavioral attributes is recommended (Grisaffe, 2001). Consequently, it is currently accepted that loyalty consists of two dimensions: both attitudinal and behavioral. The behavioral aspect of loyalty focuses on a measure of proportion of purchase of a specific brand, while attitudinal loyalty dimension is measured by psychological commitment to the target object (Caruana, 2002). This paper therefore applies a two-dimensional conceptualization of loyalty consisting of both attitudinal and behavioral elements with recommendation and repeat purchasing acting as sub-dimensions of the construct.

RESEARCH METHOD

Research framework

Figure 1 depict the relationship strength model that is advance based on the literature. The major constructs in the model include service, image, trust and loyalty, and the five hypothesized path depict the interrelationships among these constructs.

Establishment of hypothesis

Doney and Cannon (1997) suggest that the construction of trust involves a calculative process based on the ability of a party to continue to meet its obligations and on an estimation of the costs versus rewards of staying in the relationship. Therefore, to trust a online store, customers should not only perceive positive outcomes but also believe that that positive outcomes will continue in the future. Consequently, service quality should positively affect trust on online store.

Besides, the quality elements of the e-service are expected to affect trust directly (Gronroos et al., 2000), because they represent trust cues that convey the trustworthiness of the site and the system to customers (Corritore et al., 2003). Furthermore, Corritore et al. (2003) call web sites objects of trust and suggest that navigational architecture and design elements have a direct effect on trust. Therefore, we expect that the customers have in online exchanges will be positively affected by the quality of their online experiences:

\textit{H1: Service quality directly and positively influences trust on online store.}

Berry et al. (1988) contend that service quality has become a great differentiator and the most powerful competitive weapon which many leading service organizations possess. Delivering superior quality to customer is
central to the formation of customer loyalty (Zeithaml, 1996); therefore, the competitive advantage of an online store is essentially determined by its ability to expand and maintain a large and loyal customer base. On the other hand, service quality is seen as a critical factor for profitability, and thereby a online store’s success. Bloemer et al. (1998) and Jones et al. (2002), among others, have pointed out that there is a positive relationship between service quality and repurchase intention, recommendation, and resistance to better alternatives. All these – repurchase intention, recommendation and resistance to better alternative – are behavior intentions and constitute customer loyalty. Therefore, it is proposed that service has a positive effect on loyalty.

**H2: Service quality directly and positively influences loyalty on online store.**

Some research suggests that image is one of the most influential factors in the degree of consumer trust (Lehu, 2001). For Lehu (2001) image is one of the fundamental elements that form part of what he calls “the shield of trust”. In fact, image for this author is one of the elements that enables the building of a sincere relationship of trust between total satisfaction and the natural loyalty of the consumer. However, the availability of research suggesting a direct link image and trust is scarce. In fact, most research undertaken in the new channels of distribution suggest an indirect relationship between both variables. Thus, for example, for Yoon (2002) the variable related to image significantly influence the trust of the consumer towards a specific website. Flavian et al. (2005) pointed out that image could increase the consumer’s trust in the internet. Therefore, with respect to the effect of image on trust, it can be expected that:

**H3: Image directly and positively influences trust on online store.**

Fishbein and Ajzen (1975) argue that attitudes are functionally related to behavioral intentions, which predict behavior. Consequently, image as an attitude must affect behavioral intentions such as customer loyalty (Johnson et al., 2001). Nguyen and Leblanc (2001) demonstrate that image relates positively with customer loyalty in three sector (telecommunication, retailing and education). The same relationship is demonstrated by Kristensen et al. (2000) for Danish postal services, and by Juhl et al. (2002) for the Danish food retailing sector. Chang and Tu (2005) also point out that image can effectively predicted customer loyalty. Therefore, with respect to the effect of image on loyalty, it can be expected that:

**H4: Image directly and positively influences loyalty on online store.**

Trust has been recognized as an important role in affecting customer loyalty (Gundlach and Murphy, 1993). In this context, trust works at preserving relationship investments by cooperating with exchange partners, resists attractive short-term alternatives in favor of the expected long-term benefits of staying with existing partners, and views potentially high-risk actions as being prudent because of the belief that their partners will not act opportunistically (Morgan and Hunt, 1994). Hence, it is claimed that there is a positive relationship between trust and customer loyalty, consistent with the past research (e.g. Chaudhuri and Holbrook, 2001; Lau and Lee, 1999). Besides, Bryant et al. (2002) state that “trust is an important consideration in the development and fostering of e-Commerce relationships in the context of the knowledge-based economy”. Therefore, with respect to the effect of trust on customer loyalty, it can be expected that:

**H5: Trust directly and positively influences loyalty on online store.**

**Measurement**

Most items indicating the service quality, image, trust and loyalty were drawn from previous literature. 5-point Likert scales were adopted to measure the concepts.

e-Service quality is defined as “multidimensional concepts that the extent to which a Web site facilitates efficient and effective shopping, purchasing, and delivery (Zeithaml et al. 2005).” 4 different factors of service quality are drawn form previous studies (Parasurman et al. 2005). Store images are conceptualized as “multidimensional concepts that a consumer perceives to be present in an online store.” 3 different factors of store images are drawn form previous studies(Lai, 2002; Chen, 2006)

According to previous studies, we define trust as “costumers believe that the products, service and information in an online store is reliable and honest.” 6 items of trust are drawn form previous studies(Donny and Cannon, 1997; Chen, 2004). Loyalty has been conceptualized as “the customer’s favorable attitude toward and electronic business, resulting
in repeat purchasing behavior (Anderson and Srinivasan, 2003).” 2 different factors of loyalty are drawn from previous studies(Talor, 1998; Lee et al., 2001; Chang, 2004).

**EMPIRICAL ANALYSIS**

**Descriptive of sampling data**

A survey aimed at measuring and comparing how service quality, store image and trust influence the customer loyalty on online store. Data was collected through a self-administered questionnaire distributed to 355 respondents from four universities in north Taiwan. The subjects have the experiences of purchasing on online stores. All the questionnaires were collected but only 303 were usable.

Among the respondents, 75.9% are female and 24.2% are male with the age ranging from 16 to 25 (68.4%) and 26 to 25 (24.8%). All respondents had purchased online at least once. The frequency of online purchase ranged over 11 times (32.3%), 3 to 5 times (28.1%), 1 to 2 times (23.1%) and 6 to 10 times (16.5). Almost of the respondents had over 4 years experience to use internet. We deem our study sample useful because we were interested in online consumers who are generally younger and more highly educated than conventional consumers were (OECD, 1998), making student sample closer to the online consumer population.

**Reliability and validity analysis**

Empirically validated scales were adapted to the context of the study and used to measure the respective constructs. Additionally a confirmatory factor analysis was used to assess construct measurement. Inspection of the loading of items on their respective constructs revealed a high degree of individual item reliability, as all items have loadings of greater 0.50 on their respective constructs (cf. White et al., 2003). Two items were removed after the analysis based on inadequate factor loading (less than 0.50) and theoretical arguments (SI24 and SI34).

The approach suggested by Fornell and Larcker (1981) was used to assess the internal consistency of the construct under study. A substantial degree of internal consistency is evidenced, as all values of Cronbach’s alpha exceed the 0.60 guideline suggested by Fornell and Larcker (1981). Table 1 summarized the results concerning the measurement model related to the assessment of individual item factor loading, eigenvalue and Cronbach’s α.

**The Structural Model**

Structural equation modeling (SEM) was used to test the hypothesized relationships in the proposed model shown in Figure 1. The structural equation modeling technique enables the simultaneous estimation of multiple regression equations in a single framework.

The model was estimated using maximum likelihood method. Browne and Cudeck (1992) specified that a model whose root mean square error approximation (RMSEA) is less than 0.05 has a close fit; an RMSEA of less than 0.08 has a good fit. Chin and Todd (1995) suggest that the GFI and NFI should be above 0.90 and the AGFI above 0.80 for a good fit. The CFI should also be above 0.90 (Bentler, 1990). The Table II lists the recommended values of various measures of model fit.

The initial model did not show acceptable model fit based on the goodness-of-fit indices examined. Specifically, the model indicated that SQ4 did not load well with the other SQ factors. This makes sense since SQ4 to list an item can completely unrelated to factors generating good final bid amount. In addition, TR5 and TR6 did not load as well as the other TR factors. These factors were dropped from the final model displayed in Figure 2. The revised model demonstrates acceptable fit, confirming that SQ, SI, TR and CL do play a role in online store sales channel selection.

In accordance with the parameter estimates shown in Figure 2, service quality is positively and significantly related to trust (coefficient=0.47, p<0.05). In the same way, as proposed in H2, service quality has a positive and significantly effect on customer loyalty (coefficient=0.25, p<0.05).

The analysis results also yield that store image relates positively and significantly with trust (coefficient=0.33, p<0.05). This finding supports H3. moreover, the path from store image to customer loyalty is significant (coefficient=0.35, p<0.05). In the same way, as proposed in H5, trust positively and significantly affect customer loyalty.
(coefficient=0.27, p<0.05).

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Measure</th>
<th>Factor Loading</th>
<th>Eigenvalue</th>
<th>Cronbach’s α</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>e-SQ</strong></td>
<td>SQ11 Information at this site makes me easy to find.</td>
<td>0.713</td>
<td>1.721</td>
<td>0.6225</td>
</tr>
<tr>
<td></td>
<td>SQ12 It enables me to complete a transaction quickly.</td>
<td>0.793</td>
<td></td>
<td></td>
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<td></td>
<td>SQ13 It loads its pages fast.</td>
<td>0.764</td>
<td></td>
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<tr>
<td><strong>e-SQ2</strong></td>
<td>SQ21 This site is always available for business.</td>
<td>0.867</td>
<td>1.503</td>
<td>0.6674</td>
</tr>
<tr>
<td></td>
<td>SQ22 This site launches and runs right away.</td>
<td>0.867</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>e-SQ3</strong></td>
<td>SQ31 It delivers orders when promised.</td>
<td>0.710</td>
<td>1.733</td>
<td>0.6299</td>
</tr>
<tr>
<td></td>
<td>SQ32 It has in stock the items the company claims to have.</td>
<td>0.740</td>
<td></td>
<td></td>
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<td></td>
<td>SQ33 It is truthful about its offerings.</td>
<td>0.825</td>
<td></td>
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<tr>
<td><strong>e-SQ4</strong></td>
<td>SQ41 It protects information about my Web-shopping behavior.</td>
<td>0.799</td>
<td>2.443</td>
<td>0.8856</td>
</tr>
<tr>
<td></td>
<td>SQ42 It does not share my personal information with other sites.</td>
<td>0.920</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>SQ43 This site protects information about my credit card.</td>
<td>0.908</td>
<td></td>
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<tr>
<td><strong>SI</strong></td>
<td>SI1 This site is well-known.</td>
<td>0.834</td>
<td>1.392</td>
<td>0.6525</td>
</tr>
<tr>
<td></td>
<td>SI2 Its reputation is worthy to reliability.</td>
<td>0.834</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SI21 The products have high quality.</td>
<td>0.896</td>
<td>1.725</td>
<td>0.7600</td>
</tr>
<tr>
<td></td>
<td>SI22 There are a lot different kinds of products to choice.</td>
<td>0.893</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>SI3 The same kinds of products in this site have a lot of brands and styles to choice.</td>
<td>0.653</td>
<td>1.818</td>
<td>0.6738</td>
</tr>
<tr>
<td><strong>TR</strong></td>
<td>TR1 This site is trustworthy.</td>
<td>0.838</td>
<td>4.192</td>
<td>0.9048</td>
</tr>
<tr>
<td></td>
<td>TR2 The information at this site is reliable.</td>
<td>0.822</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TR3 This site is reliable.</td>
<td>0.886</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>TR4 The transaction in this site is reliable.</td>
<td>0.882</td>
<td></td>
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<td></td>
<td>TR5 The transaction in this site is safety.</td>
<td>0.877</td>
<td></td>
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<td></td>
<td>TR6 This site concern with consumers is frank.</td>
<td>0.647</td>
<td></td>
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<tr>
<td><strong>CL</strong></td>
<td>CL1 I am used to go this site to find what I need.</td>
<td>0.794</td>
<td>2.761</td>
<td>0.7935</td>
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<td></td>
<td>CL2 Even I do not want to buy anything; I still go to this site.</td>
<td>0.660</td>
<td></td>
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<td></td>
<td>CL3 I spend more time in this site.</td>
<td>0.845</td>
<td></td>
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<tr>
<td></td>
<td>CL4 This site is my best choice to buy what I need.</td>
<td>0.784</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>CL5 I will still consume at this site.</td>
<td>0.607</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CL2</strong></td>
<td>CL21 If this site needs to pay other fees, I will not go to another site.</td>
<td>0.844</td>
<td>2.072</td>
<td>0.7753</td>
</tr>
<tr>
<td></td>
<td>CL22 I think I am the upholder of this site.</td>
<td>0.773</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>CL23 If another site offers the better products; I will not go to that site.</td>
<td>0.873</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Table 2. Recommended values of goodness-of-fit measures</th>
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<tbody>
<tr>
<td>Goodness-of-fit measure</td>
</tr>
<tr>
<td>-------------------------</td>
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<tr>
<td>χ²/df(NCI)</td>
</tr>
<tr>
<td>GFI</td>
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<td>AGFI</td>
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<td>RMSEA</td>
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<tr>
<td>CFI</td>
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<tr>
<td>NFI</td>
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<tr>
<td>NNFI</td>
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RESEARCH CONCLUSIONS

Conclusions and implications

Our results confirm that loyalty of online store customers is directly affected by service quality, store image and trust in an online store. These results have several implications for those stores which want to increase loyalty on the World Wide Web.

First, the service quality and store image have significant impact on trust and customer loyalty. Online stores have to redesign their with a view to enhancing usability and usefulness. Amongst the many factors which account for the perceived quality and store image of a Web site, the avoidance of downtimes seems to be extremely important to online stores. Furthermore, based on related literature, we recommend making the sites easy to navigate and giving them an uncluttered look. Sufficient information and products should be given on how to conduct transaction and, most importantly, on how to get help should unforeseen events happen.

Second, trust has significant impact on customer loyalty. We would therefore recommend that trust-building actions are paid more attention in scholarly literature, focusing for example on payback or quality certificate, which are seen as helpful steps in increasing electronic customer retention. There is a plethora literature on trust and some exemplary papers have been cited in previous sections. It seems obvious that the result of many surveys suggest incorporating trust-building measure into online customer relationships. As far as our research is concerned, the preeminent importance of trust can be explained by the products, which can be seen as the transmission and processing of highly confidential information, and trust in the medium as such, which again stands for the online store’s capability to securely transfer and store confidential personal information. Therefore, the online store must build a strong image in order to signal competence to its customers.

Limitation and future research directions

Several limitations are related to the sample and the research design. The fact that different web sites were evaluated by different observers, while each observer evaluated only one web site, creates heterogeneity in the observed object, which is not controlled for (Bamert, 2004) to minimize this effect, it would be recommended to have all participants evaluate a finite number of web sites. By asking the participants in the survey to evaluate a web site they were familiar with, a self-selection bias was introduced in the sample. It would be better to include a wide variety of subjects. Although the sample in the present study appeared homogeneous in many respects, more demographic information could also be gathered about the participants, to allow segmentation.

The sample was fairly small, and to obtain more reliable estimates it is recommended to replicate the study on a larger scale, and possibly extend it to other industries. Furthermore, a more representative sample selection will increase the validity of the study. Due to a mixed sample of students and academics, the generalizability to a larger population is limited, since both groups are very familiar with the internet and have a high technology readiness (Parasuraman, 2000).

Price obviously plays a role in customers’ decision to be loyal to an online store or not, while the present study did not control for price. For customers, the price advantage of some online-tailer pricing (Pan et al., 2002). It could be expected that an interaction effect between price and trust exists. The larger the price difference between vendors or the higher the price-sensitivity of the customer, the less trust could be expected to play a role in maintaining loyalty. This observation warrants further investigation.

Trust can relieve different types of perceived risk on the internet, such as financial risk (losing money), functional risk (receiving incomplete or damaged products, or a computer virus), and time risk (long delivery delays and difficult product exchanges). For other product categories, different types of risk may play a role (e.g. physical risk in the case of ordering drugs or food online). According to Corritore et al.(2003), risk is sparsely studied in the online literature. The need for trust presupposes inherent risks in taking the action and, therefore the effects of different types of risk on trust need further investigation.
REFERENCES


