The impact of customer interface quality, satisfaction and switching cost on e-loyalty: Internet experience as a moderator
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ABSTRACT

The proliferation of the Internet has allowed businesses to offer their products and services through we-based applications, and it has undermined their ability to retain their customer. There is little doubt that the Internet will become an important channel for retailing. However, in e-commerce, it is difficult to build customer loyalty because of the low switching costs. Accordingly, both marketing academics and professionals have attempted to uncover the most critical factors leading to customer loyalty. In the context of e-commerce, customer interface functions as a salesperson that provides information to customers. Hence, researchers indicate that an appropriate customer interface is one of the critical factors for success in e-commerce. However, despite the recognition that the quality of the customer interface can influence consumers' purchase intention, the impact of customer interface quality on customer loyalty has essentially been ignored. Furthermore, although switching costs and customer satisfaction have been identified as major factors affecting customer loyalty in e-commerce businesses, few studies have investigated whether customer satisfaction and switching costs are related to customer interface quality. Specifically, the impacts of customer interface quality on satisfaction, switching costs and e-loyalty have not been examined for customers with different levels of Internet experience.

To fill these research gaps, the purpose of this study is to examine whether perceptions of customer interface quality affect customer loyalty in e-commerce and whether this effect is mediated by customer satisfaction and switching costs. This study also intends to investigate whether consumers' Internet experience moderates the relationships among customer interface quality, customer satisfaction, switching costs and e-loyalty.

This study proposes an integrating conceptual framework (see Figure 1), which adopted the cognitive-to-action loyalty phases of Oliver (1997; 1999) as a reference model, with the aim of focusing and elaborating on the relationships among customer interface quality, satisfaction, switching costs and e-loyalty. Notably, based on literature review and related studies, this study argues that the relationships among these constructs are moderated by Internet experience. Furthermore, based on a literature review, six hypotheses associated with the model have been generated, as follows:
Customer interface quality is a multi-faceted concept with several components. This study focuses on articulating the most prominent set of customer interface design features derived from numerous previous studies. Hence, this study adopts four dimensions to model customer interface quality, namely customization, interactivity, convenience, and character. Customization is defined as the ability of a website to enable customers to access services tailored to their individual needs. Interactivity refers to the degree of interaction or dialogue between the website and the customer. Convenience is defined here as the ease of navigation and user-friendliness associated with a website. Character is defined as the aesthetic and functional look-and-feel of a website, achieved through the use of inputs such as text, style, graphics, colors, logos, and multimedia. Furthermore, the concept of e-loyalty extends the traditional concept of loyalty to online consumer behavior. Based on the study of Anderson and Srinivasan (2003) in the context of e-commerce, this study defines e-loyalty as a favorable customer attitude toward the e-store that predisposes the customer to repeat buying behavior. Based on the studies, this study suggests that perceived customer interface quality is a cognitive construct and assumes that customer interface quality directly affects e-loyalty. Thus, this study hypothesizes that:

**$H1$. Websites exhibiting a high degree of (a) customization, (b) interactivity, (c) convenience, and (d) character are associated with higher e-loyalty.**

Satisfaction is an affective response to purchase situations (Babin & Griffin, 1998; Bagozzi, Gopinath, & Nyer, 1999). This study treats customer satisfaction as cumulative and follows Anderson and Srinivasan (2003) in defining customer satisfaction as the level of customer contentment regarding prior purchasing experience with a specific website. Satisfaction with e-stores, like satisfaction with traditional stores, is not derived solely from customer satisfaction with the product purchased (Balabanis et al., 2006). Szymanski and Hise (2000) identify...
convenience and site design as the main determinant of e-store satisfaction, which in turn influences the decision to repatronize a website. Moreover, loyal customers are not necessarily satisfied customers, but satisfied customers tend to be loyal customers (Fornell, 1992). Satisfying customers should thus be of extreme importance to e-stores in their efforts to keep customers loyal. Customers who are satisfied with the e-stores they currently use develop a positive attitude towards those e-stores. Thus, this study hypothesizes that:

\[ H2. \text{Websites exhibiting a high degree of (a) customization, (b) interactivity, (c) convenience, and (d) character are associated with higher customer satisfaction.} \]

\[ H3. \text{Higher customer satisfaction is associated with higher e-loyalty.} \]

Switching costs is defined here as consumer perceptions of the time, money, and effort associated with changing from one website to another. Switching costs can increase consumer dependence on an existing provider (Morgan & Hunt, 1994). In e-commerce, high switching costs are assumed to make it costly for customers to take their business to other websites with better offers. In a study of online search behavior, Adamic and Huberman (2001) find that the top 1% of websites capture 50% of all web traffic, indicating that shoppers limit their search to just a few popular sites. The most reasonable explanation for this phenomenon is that consumer search costs associated with shopping across e-stores increase with the number of competing alternatives (Bergen, Dutta, & Shugan, 1996), and an increase in the number of available alternatives at a single e-store can markedly reduce the opportunity costs of time, inconvenience and search expended in e-store hopping (Srinivasan et al., 2002). Hence, this study asserts that online customers tend to keep on using whatever websites are perceived as having high quality customer interfaces. These positive perceptions, in turn, are related to high switching costs. Moreover, switching costs are important moderators of the relationship between customer satisfaction and customer loyalty (Lee et al., 2001; Wangenheim, 2003). Jones et al. (2000) and Caruana (2004) both find evidence of an interaction between switching costs and customer satisfaction that influences customer loyalty. Thus, the following hypothesis is derived:

\[ H4. \text{Websites exhibiting a high degree of (a) customization, (b) interactivity, (c) convenience, and (d) character are associated with higher switching costs.} \]

\[ H5. \text{Switching costs moderates the relationship between customer satisfaction and e-loyalty.} \]

Internet experience is defined here as having such a general experience by using a browser, such as Netscape or Internet Explorer, to access World Wide Web (WWW) pages. Researchers have observed that those who shop online tend to be those who have experience on the Internet (Blake & Neuendorf, 2003; Citrin et al., 2000). Since users with more Internet experience have more experience with the interfaces provided by interactive applications, they should be better able to exploit website offerings than inexperienced users. Consequently, this study argues that Internet experience moderates the relationships between customer interface quality and customer satisfaction, switching costs and e-loyalty, respectively. Thus, this study hypothesizes that:

\[ H6. \text{Internet experience moderates the influence of (a) customer interface quality on customer satisfaction; (b) customer interface quality on e-loyalty; and (c) customer interface quality on switching costs.} \]

This study conducted a Web-based survey. Our research subjects were people who had been doing online shopping for a year or longer. The main survey had 334 questionnaires for analysis. Approximately, 51% of the respondents were male. 88% were aged between 20 and 40; 90% were educated to institute/college level and above; 45% were students and 53% were workers; 50% use the Internet more than 19 hours each week. The top four online shopping
websites were YAHOO/Kimo.com (110), YAHOO auction (88), PChome.com (40), Books.com (35). Empirical analyses are performed using structural equations modeling analysis.

The results of this study support the view that customer interface quality is an important antecedent of customer satisfaction and e-loyalty (H1, H2). Although no significant relationship was found between customer interface quality and switching costs, this study confirms that customer interface quality appears to positively influence switching costs when customers have high Internet experience (H4). This result also confirms the moderating role of Internet experience among the relationships of customer interface quality, customer satisfaction and switching costs (H6). Additionally, our findings show that satisfaction can play a crucial intervening role in the relationship between customer interface qualities and e-loyalty (H3). Consistent with previous studies, this study demonstrated that switching costs moderate the relationship between customer satisfaction and e-loyalty (H5).

CONTRIBUTION

This study contributes to the understanding of re-patronage behavior in online shopping by shedding light on some important issues related to the creation of customer loyalty that have not been addressed by previous studies. In conclusion, this study contributes to practice and research in multiple ways. First, a contribution of this exploratory study is the proposal of a conceptual model as a framework to guide the investigation of Internet patronage behavior. This study demonstrates that customer interface quality is a critical influence on the establishment of e-loyalty. Notably, convenience directly contributes to the generation of e-loyalty. It implies that if a website that is logical and convenient to use facilitates fast completion of a transaction, it is likely that customers will come back, particularly for those goal-oriented shoppers who are busy and more interested in ease of access and information about products and customer service. Hence, this study suggests that online firms should consider focusing more on customer interface design in their marketing strategies, particularly with regards to the ease of navigation and user-friendliness features.

Second, the results of this study show that customization, interactivity and character indirectly affect e-loyalty through customer satisfaction. Researchers indicate that website interface provides cues in the context of online environment and triggers customers' emotional responses, especially for experiential shoppers who are motivated by recreation. Specifically, this study shows that character (e.g. websites' text, style, graphics, colors, logos, and multimedia) exerts the strongest direct effect on the customers' level of satisfaction. This finding is particularly important for websites' managers when they decide how to allocate resources in designing their website interface. Online firms could invest substantially in digital imaging and multimedia technology to ensure that all images of products on their website are presented using high quality graphics and multimedia, which will arouse customers' positive emotions such as enjoyment and satisfaction, and in turn, enhance e-loyalty.

Furthermore, this study finds that customer interface quality positively affects switching costs only when customers have high Internet experience. Accordingly, this study suggests that marketing strategies for retaining high Internet experience customers should be based on attempts to increase perceptions of switching costs by designing convenience, character, interactivity, and customization into their website interface in order for customers to perceive these benefits.

Finally, the findings also confirms the research of Nysveen and Pedersen (2004), which posits that Internet experience is an important moderating variable in understanding customers' behavior in e-commerce. Hence, the results of this study provide encouraging empirical support for the hypothesized moderating effect of Internet experience on the relationships among customer interface quality, satisfaction and switching costs.