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ABSTRACT

Since the online market has been growing rapidly over the past several years, e-commerce marketing activities have drawn a lot of attention. The main purpose of the study is to develop a comprehensive research model of explaining the user’s online shopping behavior. Empirical analyses are performed using structural equation modeling analysis and results indicated that e-service quality would not affect the on-line shopping customer loyalty directly but indirectly through the mediation of perceived value and customer satisfaction. And perceived value would not only affect the customer loyalty directly but also indirectly through the mediation of customer satisfaction.

INTRODUCTION

The business-to-customer (B-to-C) online market has been growing rapidly over the past several years. Reichheld & Schefter (2000) survey shows that consumers have increasingly favored online shopping. In the consumer marketing community, customer loyalty has long been regarded as an important goal. According to Taiwan Market Intelligence Center industry analysis (2006), online shopping market in Taiwan amounted to $59.8 billion last year with 54% growth rate compared to former year. Growth rate forecast for this year is 50%, with sales amount to $ 89.3 billion, and might be up to $131.1 billion next year. Numerous studies have pointed out that two of the more effective means of generating customer loyalty are to delight customers (Oliver, 1999) and to deliver superior value derived from excellent services and quality products (Parasuraman and Grewal, 2000).

Similar to a retail storefront, the electronic service quality (e-SQ) provides significant information and feeling to current and prospective target-market customers. Thus, if the service can achieve what users want in a website is an important area of study. Developing a website that is responsive to user needs is critical for user satisfaction. If the website can satisfy users, excellent e-service quality is essential. There are several factors to be considered, including the website design, reliability, security, and customer value (Wolfinbarger and Gilly, 2002; Aladwani and Palvia, 2002). Furthermore, it would be interesting to determine if these characteristics of the e-service quality have a potential influence on customer satisfaction.

Several researchers have attempted to confirm the relationship between satisfaction and loyalty in their research (Woodside, Frey, & Daley, 1989; Cronin & Taylor, 1992; Oliver, 1999). The relationship seems almost intuitive, however, the strength of the relationship between satisfaction and loyalty has been found to vary significantly under different conditions (Anderson & Srinivasan, 2003).

Customer perceived value has recently gained much attention from marketers and researchers because of the important role it plays in predicting purchase behavior and achieving sustainable competitive advantage (Zeithaml, 1988; Bolton & Drew, 1991; Parasuraman, 1997). Customer Perceived value involves “A ‘get’ component—i.e., the benefits a buyer derives from a seller’s offering—and a ‘give’ component—i.e., the buyer’s monetary and nonmonetary costs in acquiring the offering”.

Researchers have also established a positive relationship between perceived value and intention to purchase/repurchase (Dodds, Monroe, & Grewal, 1991; Parasuraman & Grewal, 2000). When the perceived value is low, customer will be more inclined to switch to competing businesses in order to increase perceived value, thus contributing to a decline in loyalty. Even satisfied customers are unlikely to repurchase on the same web site, if they feel that they are not getting the best value for their purchase. Instead, they will seek out other websites in an ongoing effort to find a better value (Anderson and Srinivasan, 2003).

It is only a mouse click away in electronic commerce (e-commerce) settings, so it is critical that companies understand how to build customer loyalty in online marketing. Since the e-service quality and customer perceived value of Internet Websites are regarded as the key influential factors for Internet marketing, a more detailed evaluation of e-service quality and customer perceived value may become a necessity. Although previous studies have recommended the importance of perceived quality in experiential marketing, few studies have empirically developed a framework to measure the e-service quality and value of experiential marketing in Internet Websites and distinctly interpreted the effect of different level of customer satisfaction and perceived value on the customer loyalty. We hope this study will add a little to the understanding of electronic commerce.

There are two objectives in this study. First, this study identified key antecedents that are likely to influence customer satisfaction and customer loyalty in online shopping environments. Second, this study integrated relevant literature and develop a comprehensive research model of experiential marketing to explain the user’s online shopping behavior.

LITERATURE REVIEW AND HYPOTHESES

E-Service Quality

The Internet remains a critical channel for selling most goods and services (Zeithaml, Parasuraman, Malhotra, 2002). Today, the most successful electronic commerce companies are beginning to realize that not only low price and web presence were initially but also the delivering of the high e-service quality became important (Yang and Jun, 2002; Zeithaml, Parasuraman, Malhotra, 2002). The first formal definition of website service quality or electronic service quality (e-SQ) was provided by Zeithaml, Parasuraman, and Malhotra (2001). Zeithaml et al.(2001) defined e-SQ as the extent to which a website facilitates efficient and effective shopping, purchasing, and delivery of products and services. The online shopping can fulfill several consumers’ needs more effectively and more efficiently compared with the conventional shopping (Grewal, Iyer, and Levy, 2004; Monsuwe et al. 2004). Online customers thus expect equal or higher levels of service quality than traditional channels customers (Lee and Lin, 2005). Therefore, many academic researchers in online shopping have recently focused on the e-service quality to attract potential customers and on how to retain current customers (Jun et al.,2004). As a result, a fundamental understanding of factors impacting online customer satisfaction is...
of great importance to electronic commerce (McKinney et al. 2002).

**Customer Satisfaction and Loyalty**

Oliver (1997) stated that satisfaction is a summary psychological state resulting when the emotion surrounding disconfirmed expectations is coupled with the consumer’s prior feelings about the consumption experience. Kotler (2000) also expresses that satisfaction is a person’s feelings of pleasure or disappointment resulting from comparing a product’s perceived performance (or outcome) in relation to his or her expectations. Many researchers explored the role of satisfaction in the electronic commerce. Anderson and Srinivasan (2003) investigate electronic commerce and defined e-satisfaction as the contentment of the customer with respect to his or her prior purchasing experience with a given electronic commerce firm. McKinney et. al (2002) posited that web-customer satisfaction has two distinctive sources—satisfaction with the quality of web-site’s information content and satisfaction with the web-site’s system performance in delivering information. Based on the definitions in this literature, we here define customer satisfaction as “the psychological reaction of the customer with respect to his or her prior experience with comparison between expected and perceived performance”.

Engel, Kollat, and Blackwell (1982) defined brand loyalty as the preferential, attitudinal and behavioral response toward one or more brands in a product category expressed over a period of time by a consumer”. Anderson and Srinivasan (2003) investigate the electronic commerce and defined customer loyalty as “the customer’s favorable attitude toward an electronic business resulting in repeat buying behavior”. Based on this literature, we here adopt a definition of customer loyalty as “A commitment of repeat buying a preferred product/service and positive word of mouth consistently in the future”.

Parasuraman et al. (1985, 1988) specifically suggested that service quality is an antecedent of customer satisfaction. Several studies have modeled service quality as an antecedent to behavioral intentions and found a significant link (Bitner, 1990; Boulding et al., 1993; Zeithaml et al., 1996). Website quality has been demonstrated to significantly influence consumers’ online shopping attitudes and behavior. Better website quality can guide the consumer’s complete transactions smoothly and attract them to revisit this internet store (Li and Zhang, 2002). Szymbanski and Hise (2000) found that aspects associated with product information and web site design are important determinants in forming customer satisfaction. Satisfaction is a necessary prerequisite for loyalty but is not sufficient on its own to automatically lead to repeat purchases or brand loyalty (Bloemer and Kasper, 1995). A dissatisfied customer is more likely to search for information on alternatives and more likely to yield to competitor overtures than a satisfied customer (Anderson and Srinivasan, 2003). Based on this relationship among e-service quality, customer satisfaction, and customer loyalty, we propose the following hypotheses:

**Hypothesis 1**: E- Service quality will have an impact on customer satisfaction.

**Hypothesis 2**: E- Service quality will have an impact on customer loyalty.

**Hypothesis 3**: Customer satisfaction will have an impact on customer loyalty.

**Customer Perceived Value**

Customer value represents the trade-off between the quality, or benefits, the customer receives and the costs, such as monetary, energy, time and psychic transaction costs, the customer incurs by evaluating, obtaining and using a product (Kotler, 1977). Zeithaml (1988) defined the perceived value as the consumer’s overall assessment of the utility of a product based on perceptions of what is received and what is given. Keeney(1999) defined the value proposition associated with internet commerce as the net value of the benefits and cost of both a product and the processes of finding, ordering, and receiving it. Based on a synthesis of previous definitions, perceived customer value is defined here as “a consumer’s perception of the net benefits based on perception of what is received and what is given.” Lindgreen and Wynstra (2005) think that customer value has at least two dimensions. The first of these deals with the value of the (augmented) goods and services, while the second one focuses on the value of buyer-seller relationships. In this paper we focus on the value of the (augmented) goods and services.

Choia et al. (2004) postulated that value perceptions of medical services will be directly influenced by perceived service quality. Perceived value contributes to the loyalty of an electronic business by reducing an individual’s need to seek alternative service providers (Anderson and Srinivasan, 2003). In electronic commerce, offering low customer transaction costs creates customer value, increases firm performance and contributes to competitive advantage (Chircu and Mahajan, 2006). In other words, When the perceived value is low, customers will be more inclined to switch to competing businesses in order to increase perceived value, thus contributing to a decline in loyalty (Anderson and Srinivasan, 2003). Based on above relationship, we propose the following hypotheses:

**Hypothesis 4**: E- Service quality will have an impact on customer perceived value.

**Hypothesis 5**: customer perceived value will have an impact on customer satisfaction.

**Hypothesis 6**: customer perceived value will have an impact on customer loyalty.

**METHODOLOGY**

**Research Model**

This research proposed an integrative model to explain the user’s online shopping behavior which based on established relationships among e-service quality (web site design, reliability, security and customer service), customer satisfaction, customer loyalty, and customer perceived value (presented in Figure 1). The model of this research is based on Fornell’s et al.(1996) customer satisfaction index (CSI) model which measure the antecedents of overall customer satisfaction-expectations, perceived quality, and value and the consequences of overall customer satisfaction-voice and loyalty.

**Measures**

In order to measure the various constructs, validated items used by other researchers were adapted. The various dimensions of the e-service quality were talk about. Wolfinbarger and Gilly (2002) developed a scale named .comQ. And Zeithaml, Parasuraman and Malhotra (2002, 2005) developed the E-S-QUAL and E-RecS-QUAL for measuring the service quality delivered by Web sites on which customers shop online. In this research, we found the two scales have many similar aspects and combine them as our measurable variables of e-service quality with four dimensions: web site design, reliability, security, and customer service. Customer perceived value was assessed with two items based on the perceived
utility/worth resulting from the trade-off of “get” versus “give-up” (Zeithaml, 1988). In this paper, we measure customer perceived value by the scale from Dodds, Monroe and Grewal (1991), Anderson and Srinivasan (2003). Customer satisfaction was assessed by adapting the scale developed by Oliver (1980) and Anderson and Srinivasan (2003). Lastly, customer loyalty was evaluated by using scale items adapted from Berry and Parasuraman (1996) and Anderson and Srinivasan (2003) and Yang and Peterson (2004). Each items was used 7-point Likert scales ranging from “strongly disagree” to “strongly agree”. A questionnaire initially including 29 items was generated, consisting of 14 items for e-service quality, 3 items for customer satisfaction, 8 items for customer loyalty and 4 items for customer perceived value.

**Pilot Test**

This study evaluated the results of the pilot test by using Cronbach’s reliability and exploratory factor analysis. The three statements were deleted after the pilot test. Ultimately, a final 26-item survey questionnaire contained four parts including 14 items for e-service quality, 3 items for customer satisfaction, 8 items for customer loyalty and 4 items for customer perceived value.

**Data Collection**

In order to measure reliability and validity, a pretest was conducted. A pilot test of the measures was conducted by 70 respondents who were asked to provide comments on the relevance and wording of the questionnaire items and adjusted based on their comments. In the formal questionnaire, the data were gathered through Internet questionnaire of Chungwa Telecom Co., Ltd in Taiwan. For the final survey, a total of 350 survey questionnaires were collected from respondents who had online shopping experience, 20 invalid questionnaires were eliminated and 330 questionnaires retained for analysis. The response rate is 94.3%. Online questionnaire also confirm that our sample have experiences to use internet. In the aggregate sample, 44.8% of respondents are men and 55.2% are women. More than 85% of the respondents are Y generation people defined as people born among 1976 to 1985. Almost 95% of the respondents’ education is at institute/college level and above. 45.7% of the respondents are students and 54.3% are workers. Approximately 48.6% of the respondents use the Internet more than 20 hours each week. In disposable income, about 71.1% of the respondents have less than 10,000 dollars per month. More than 67% of respondents pay for Internet purchases by credit card or ATM transfer account. Besides, the respondents also show some interesting characteristics. The top three products purchased online in our study are computer equipment (100), books (87), and clothes (79).

**DATA ANALYSIS AND RESULTS**

**Validity and Reliability**

We adopted confirmatory factor analyses to verify the reliability and validity of the measurement model. Reliability and Convergent validity of the constructs were estimated by composite reliability and average variance extracted. All of the factor loadings of the items in the research model were greater than 0.05(see Table 1), with most of them above 0.70. The composite reliability were all above the recommended 0.7 level (Hair, 1997). Finally, convergent validity can assessed by the average extracted variances were all above the recommended 0.5 level (Hair, Anderson, Tatham, and Black, 1992). Therefore, all constructs in the model had adequate reliability and convergent validity.

**Structural Model**

The purpose of this study is to find out the relationships among e-service quality, customer satisfaction, customer loyalty, and customer perceived value. The causal relationship of all the variables in the proposed research model was tested usingstructure
equation modeling (SEM) as performed in LISREL8.52 software. The goodness-of-fit indices for our testing model are as following: Chi-square to degrees of freedom ratio is 3, GFI is 0.922, AGFI is 0.882, NFI is 0.962, CFI is 0.973, RMR is 0.052 and RMSEA is 0.083 which are all within the accepted thresholds as suggested in the literature. Thus, we ensure that our research model is adequate representation of the entire set of causal relationship.

Tests of Hypotheses
Most of the proposed hypotheses were supported except for H2 (E-service quality→Customer Loyalty)(see Table 1). E-service quality has significant impact on customer satisfaction ($\gamma=0.65$, t-value=8.09) and customer perceived value ($\gamma=0.74$, t-value=11.47). But e-service quality has not significant impact on customer loyalty ($\gamma=0.29$, t-value=1.74). Moreover, customer satisfaction has significant impact on customer loyalty ($\gamma=0.84$, t-value=11.47). Therefore, results of the analysis supported H1, H3, and H4. These results indicated that e-service quality would not affect their on-line shopping customer loyalty directly but indirectly through the mediation of perceived value and customer satisfaction. Finally, customer perceived value has significant impact on customer satisfaction ($\beta=0.332$, t-value=4.812) and customer loyalty ($\beta=0.341$, t-value=3.595). Therefore, results of the analysis supported H5 and H6. These results are in conformity with the theories of experiential consumer behavior.

### Table 1

<table>
<thead>
<tr>
<th>Hypothesized Relationship</th>
<th>AVE (&gt;0.5)</th>
<th>CR (&gt;0.6)</th>
<th>Factor loading</th>
<th>t-value</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-service quality</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Website design</td>
<td>0.56</td>
<td>0.83</td>
<td>0.73</td>
<td>12.88</td>
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<tr>
<td>Reliability</td>
<td>0.54</td>
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<td>0.74</td>
<td>12.95</td>
<td>significant</td>
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<td>Security</td>
<td>0.75</td>
<td>0.90</td>
<td>0.74</td>
<td>12.95</td>
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<tr>
<td>Customer service</td>
<td>0.57</td>
<td>0.80</td>
<td>0.72</td>
<td>12.54</td>
<td>significant</td>
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<tr>
<td>Customer perceived value</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>CPV1</td>
<td>0.67</td>
<td>0.89</td>
<td>0.87</td>
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<tr>
<td>CPV2</td>
<td></td>
<td></td>
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<tr>
<td>CPV3</td>
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<tr>
<td>CPV4</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Customer satisfaction</td>
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<td></td>
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<tr>
<td>SAT1</td>
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<td>0.86</td>
<td>0.83</td>
<td>2.42</td>
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<tr>
<td>SAT2</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>SAT3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Customer loyalty</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Repurchase intention</td>
<td>0.59</td>
<td>0.85</td>
<td>0.81</td>
<td>17.60</td>
<td>significant</td>
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<tr>
<td>Word of mouth</td>
<td>0.64</td>
<td>0.78</td>
<td>0.89</td>
<td>17.60</td>
<td>significant</td>
</tr>
</tbody>
</table>

Conclusions and Limitations

**Conclusions**
This study was intended to make contributions to the current understanding of online shopping consumer behavior in two ways. First, this study identified key antecedents that are likely to influence customer satisfaction and customer loyalty in online shopping environments. The results showed that e-service quality (web site design, reliability, security, and customer service) would not affect the on-line shopping customer loyalty directly but indirectly through the mediation of perceived value and customer satisfaction. Therefore, to enhance customer perceived value and customer satisfaction, online stores should start improving the design of web site, providing accurate service, strengthening the security of online transactions, and helping customer to solve problems.

Second, we proposed an integrative model to explain the user’s online shopping behavior which based on established relationships among e-service, quality, customer satisfaction, customer loyalty, and customer perceived value. Most of past studies of online consumer behavior have focused on the links among service quality. Although the crucial importance of customer perceived value in the online shopping environment, previous studies have been neglected that variable. In this research, the results showed that perceived value would not only affect the
customer loyalty directly but also indirectly through the mediation of customer satisfaction. Because perceived value is conceptualized as the consumer’s evaluation of the utility of perceived benefits and perceived sacrifices (Zeithaml, 1988), we suggested that online stores should try to raise the benefits (such as good, services, personnel, and image value) and reduce the sacrifices (such as monetary, energy, time and psychic transaction costs).

Limitations

There are several limitations of this research that should be considered when interpreting its findings. First, replication of this research in different business and settings such as Business-to-Business in both cross-sectional and longitudinal studies could also help extend the validity of these findings. Second, besides customer perceived value, further studies might also profit form focusing on a wider range of variables, possibly exploring the effect of involvement, convenience orientation, and switching cost etc. In addition, a more comprehensive model might be developed. Finally, repurchase intention and word of mouth (WOM) were integrated into customer loyalty. However, some studies have shown that marketing programs can have different effects on different customer behaviors. It would therefore be interesting to conduct further research to examine the different behaviors of customer loyalty.

REFERENCES


