## E-Customer Relative Share of Mind: The Role of Website Quality Dimensions, Sitecustomers' Attitudes and E-Satisfaction

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#### Abstract

This study proposes and empirically tests an integrated model of E-Customer relative share of mind (CSM), defined as the online customer's patronage and behavioral loyalty actions towards the website. The study identifies six dimensions of website quality for the online retail websites, namely, website appearances, content updatedness, navigational quality, information quality, site organization, and interactivity features. The dimension specific analysis is conducted between six website quality dimensions and the site customers' esatisfaction, affective attitude and the relative share of mind (CSM) for the retail websites. Of the six website attribute-dimensions, website appearances, navigational quality, site organization and interactivity features significantly impact the constructs of e-satisfaction and/or the customer's affective attitude towards the website. The results of the study indicate an important mediating role played by the constructs of e-Satisfaction and Affective Attitudes in influencing the CSM. The study also suggests the positive and significant impact of esatisfaction on the customer's affective attitude. A dimension-specific model of website quality and e-satisfaction is more likely to reflect the customers' mental representations of their consumption experience at the website, which in turn, is likely to influence their relative CSM. In sum, these findings provide a better understanding of some of the determinants of online customers' attitudes and e-satisfaction, as well as their role in strengthening the e-Customers' relative share of mind and patronage towards the site, a loyalty phenomenon of high importance to e-retailers

Keywords: E-customer share of mind, retail website quality, attitude, e-satisfaction

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#### Introduction

A growing body of literature has begun to explore the concept of e-service quality and its implications for e-retailers (Anderson and Srinivasan, 2003; Loiacono et al. 2007; Parasuraman et al. 2005; Yoo and Donthu, 2001). However, there is limited research which has explored a dimension specific analysis of the relationship between the various dimensions of e-service quality and e-satisfaction, the customers' attitude and customer share of mind and patronage towards the website. This conjecture echoes Zeithaml et al. (2002) suggestion to pay urgent attention to the concept of electronic service quality and its consequences. The present study, therefore, focuses on identifying the website quality dimensions, and examines their relationships with the site customer's e-satisfaction, affective attitudes and CSM towards the website. The CSM is a newer concept to study in the context of online marketing, and it represents a component of behavioral loyalty (Oliver, 1999). Understanding its antecedents should be of critical importance to on-line retailers.

# Literature Review and Hypotheses Development

# Website Quality and E-satisfaction

The construct "website quality" is developed based on the relatively established body of research relating to service quality and e-service quality. Santos (2003, p.235) defines e-service quality as "the consumers' overall evaluation and judgment of the excellence and quality of e-service offerings in the virtual market place." Zeithaml et al. (2002) conceptualized e-service quality as "the extent to which a website facilitates efficient and effective shopping, purchasing and delivery." In most of the studies e-service quality has been considered as a multidimensional construct (Aladwani and Palvia, 2002; Loiacono et al. 2007 and Olsina et al. 1999) and playing a significant role in enhancing the website effectiveness in fulfilling customers' needs and expectations, and, hence their satisfaction. We, therefore, consider website quality as a multidimensional construct, and define it as the site-customer's assessment of website attributes based upon his/her experience with the site. Several studies indicate positive relationship between the website quality and e-Satisfaction (Szymanski and Hise, 2001; Chen et al. 2002; Cheung and Lee 2002). We expect that each of the dimensions of website quality will have a positive impact on e-satisfaction. Hence we advance the following hypothesis:

Hypothesis 1: Website quality dimensions will have significant positive impact on e-satisfaction.

## **E-Customer Satisfaction and Affective Attitude**

This study considers e-Satisfaction from the psychological perspective (Shankar et al. 2003). It refers to customer's total prior experience with a given website. It represents the customer's perceptions and evaluation of service performance in terms of fulfillment of expectations, values and norms, underpinning the confirmation/disconfirmation paradigm (Yi, 1989). For the purposes of this study, operationally e-satisfaction is defined as the extent to which the web site has exceeded the customer's expectations and requirements , in terms of satisfaction with functional performance of the site as well as with the perceived satisfaction with overall quality of experience e.g., in terms of transacting business on the site. The construct of e-Customer's attitudes towards the website refers to the web surfers'

predispositions to respond favorably or unfavorably to web content in natural exposure situations (Chen and Wells, 1999, p.28). Lee et al. (2004) consider attitude towards website is influenced by perceived risk associated with online transaction, including product and service risks, and performance expectations. As the website facilitates satisfaction of such needs, preferences or concerns of the customer, we expect the customer to develop positive/affective feelings towards the site. For the purposes of this study, we operationally define affective attitude towards the site as the extent to which the site customer, overall, likes the website relative to other sites, perceives it important to satisfy his/her needs, and has developed a sense of belongingness towards the site. Higher the level of e-satisfaction, the more positive the e-customer's attitude towards the site. Hence, we advance the following hypothesis:

Hypothesis 2: e-Satisfaction will have a positive effect on the site-customer's affective attitude towards the website.

# Website Quality and Affective Attitude towards Website

In the context of e-retailing, literature suggests that e-service quality attributes have a positive effect on the customer's attitude towards the website (Wolfinbarger and Gilly, 2003; Yoo and Donthu, 2001). Specifically, the customer perceptions about the quality of the site's navigation, interactivity features, content, and the site's organization, etc, are likely to favorably influence the customer's attitudes as they address the online customer's basic needs for purchasing decisions and transactions. Some of the TAM (Technology Acceptance Model) studies have also indicated a positive relationship between website effectiveness and consumer attitudes (Vijayasarathy, 2004). Based on this evidence and reasoning, we develop the following hypothesis:

Hypothesis 3: *Perceived quality of website attributes-dimensions will have positive impact on site customer's affective attitude towards the website.* 

## E-satisfaction, Affective Attitude towards the website, and Customer Share of Mind

Customer loyalty is an outcome of the customer's overall satisfaction (Oliver 1999 and Shanker et al. 2003). Ha's (2005) study further indicates that the customer's satisfaction with the site's performance influences the customer's repurchase decisions and intentions. Oliver (1999) states that action loyalty is the stage where behavioral intentions get converted to behavioral actions ,e.g., actual purchase of the brand, repeat purchase, regularly visiting the store (or the website), etc. We, therefore, consider the CMS as a component of the behavioral loyalty construct, and, advance the following hypothesis for the study:

# Hypothesis 4: *e-Satisfaction will have positive impact on the customer's relative share of mind (CMS) towards the website.*

Previous studies have also shown that e-satisfaction has a positive relationship with behavioral intention towards the website (Carlson and O'Cass, 2010). Furthermore, based on the 'Theory of Planned Behavior' (Azjen and Fishbein, 2000) there is a general consensus in the consumer behavior literature that consumer's attitude affects the behavioral intention of customers. Lederer et al. (2000) and Vijayasarathy (2004) found that consumer's favorable attitude towards a website is positively related to behavioral intention of revisiting the website. It is, therefore, reasonable to assume that the site customer's affective attitudes towards the site would culminate in broader range of patronage actions, including frequency of visiting the site, consistently making purchases from specific website, etc. Based on this reasoning and the above literature, we propose the following hypothesis:

Hypothesis 5: The customer's Affective Attitude towards the website will have a positive impact on the customer's relative share of mind (CMS) in favor of the website.

Based on the hypotheses developed above, we propose and empirically test the research model in Figure 1:





#### Methodology

We used online survey as the data collection method, using a convenient sample. The survey questionnaires were emailed to the graduate, undergraduate students from a reputed school in the northeast region of the United States. Literature on e-service quality and e-retailing suggests that the convenience sampling approach is an efficient and acceptable sampling method in such type of studies (Park and Kim, 2003; Yoo and Donthu, 2001; Gefen et al. 2003). A total of 509 usable responses were obtained. The instrument for the constructs in the model were developed using an iterative process adopted in consumer research for generating items (Churchill, 1979; O'Cass, 2000). For measuring website quality, in addition to a review of extant literature, three focus groups were conducted with the graduate and undergraduate students for generating a pool of items representing the construct of website quality, and then submitting the initial pool of items to expert judges for the final selection and approval. A total of 31 items were identified and used initially to measure the website quality construct. A similar process was used to generate the items representing the CSM. E-satisfaction construct was measured using a three-item scale adopted from Szymanski and Hise (2001) and Srinivasan et al. (2002). Attitude towards the website was measured using a three-item scale adopted from Chen and Wells (1999) and Stevenson et al. (2000). Measurement of the CSM loyalty was adopted from Roy et al. (2009). The final questionnaire consisted of thirty one items representing various aspects of website quality, and ten items measuring the other constructs in the model. The measurement items for constructs are shown in Appendix 1. All the items were measured using seven-point Likert-type or rating scales. The respondents completed the entire questionnaire for one specific website which was selected randomly for each student in the class. By the design of the sampling procedure pursued for selecting the websites, the data represents responses from actual customers of a variety of retail websites, marketing both consumer goods and/or services, with a potential to enhance the generalizeabilty of the study results.

#### **Data Analysis and Results**

Data collected for the study was analyzed in four stages. First, exploratory factor analysis (with principal component analysis and varimax rotation) was used which yielded six factors. Twenty two items were retained which loaded uniquely on one of the six factors. They are labeled as website appearances (Q1), content updatedness (Q2), navigational quality (Q3), information quality (Q4), site organization (Q5), and interactivity (Q6). The Cronbach's alpha for the website quality dimensions ranged between 0.77 and 0.88 which is acceptable (Hair et al. 2006). The six factors obtained in the preceding stage and their indicators were subjected to first-order confirmatory factor analysis (CFA) through a measurement model using AMOS 16.0 s/w. The measurement model indicated an acceptable model fit with data  $(\chi^2 = 564.64, df = 194, p < 0.001; CFI = 0.934; TLI = 0.921; IFI = 0.934; NFI = 0.903; and$ RMSEA = 0.06). Factor loadings for website quality items were in the range from 0.50 to 0.94 respectively (significant at p<0.001) and AVE values for all the quality factors were greater than or equal to 0.50 which reflected the convergent validity (Fornell and Larcker, 1981). The discriminant validity of the quality factors was assessed by comparing the average variance extracted (AVE) with the corresponding inter-quality factors' squared correlation estimates (Fornell and Larcker, 1981). The composite reliability values of the constructs were within the acceptable range, varying between 0.60 and 0.75, (Hair et al. 2006 Next the measurement model was estimated and found to have adequate model fit with the data ( $\chi^2$  = 975.25, df = 428 p< 0.001; CFI = 0.945; TLI = 0.933; IFI = 0.946; NFI = 0.908; and RMSEA = 0.05). E-satisfaction, attitude towards the website and CSM were found to have adequate reliability and validities (convergent and discriminant validity). Finally the structural modeling was conducted to test the research hypotheses. Results indicate an adequate model fit with the chi-square statistic ( $\chi^2 = 986.56$ , df = 434, p<0.001) and all the baseline comparison indices (CFI = 0.945; TLI = 0.933; IFI = 0.945; NFI = 0.907 and RMSEA = 0.05). Results indicate that Q1 (coefficient (c) = 0.161, p < 0.05); Q3 (c = 0.423, p < 0.01); Q5 (c = 0.263, p < 0.05) and Q6 (c = 0.64, p < 0.001) have significant impact on esatisfaction. Results also indicate that Q1 (c = 0.214, p < 0.01) and Q6 (c = 0.436, p < 0.001) have significant impacts on website visitors' attitude towards the website. E-satisfaction was found to have significant impacts on attitude towards the website (c = 0.235, p < 0.05) and action loyalty of website visitors (c = 0.112, p < 0.05) which supports hypotheses 2 and 4. Finally attitude towards the website had a significant impact on website CSM (c = 0.423, p <(0.01) which supports hypothesis 5.

#### **Discussion and Implications for Future Research**

The relationships depicted in our research model (Figure 1) among the constructs of website quality, site customers' attitudes and the CSM towards the retail websites, are supported by the data collected for the study. The results suggest an important role of the four web site quality dimensions, viz., Interactivity encouragement (Q6), navigational quality (Q3), site organization (Q5) and the overall website appearances (Q1), in influencing the site customers' e-satisfaction and/or affective attitudes towards the site. These results make logical sense. The online purchasing transactions occur in mediated environment. Because of the spatial physical and marketing conditions, the customer has limited opportunities for face-to-face and direct interaction and communication with the retailer or its personnel, to ensure satisfaction of his/her purchasing needs and requirements. Thus, the presence of the site's interactivity features and encouraging their usage potentially provides value added functionality for the customers, very essential in the mediated environment. The customers have an opportunity to communicate instantaneously on broad range of purchasing issues and reduce their time and search costs. The interactivity features, therefore, signify as the key

advantage of the site, in promoting the e-Satisfaction. Next, the significance of navigational quality dimension reflects the customer's importance for the site's functionality in facilitating the desired purchasing related tasks, efficiently and effectively. The website dimension of 'appearances' perhaps reflects satisfaction of a hedonic need, e.g., the site visitor who must have an aesthetically pleasing site to routinely transact business on the site. Lastly, the importance of the site-organization dimension reflects the need for promoting a sense of harmony and simplicity in using the site features. Cumulatively, the presence of these website attributes would reflect superior system quality. In sum, these findings provide a better understanding of some of the determinants of online customers' attitudes and e-satisfaction, as well as their role in strengthening the e-customers' relative share of mind and patronage towards the site, a loyalty phenomenon of high importance to e-retailers. Furthermore, the constructs e-satisfaction and the affective attitudes, in turn, each influence the site customers' behavioral loyalty (CSM) towards the site. Of the two paths leading to the CSM, the path from the affective attitude to the CSM is relatively stronger as compared to the path from esatisfaction to the CSM. However, the construct of e-Satisfaction plays a significant role in shaping the site customers' affective attitudes, including promoting the site-customer's sense of belongingness and imparting a personal meaning to the customers. These findings suggest existence of significant direct and indirect paths from e-satisfaction to the CSM. By implications, the results provide useful insights to e-Retailers for attracting and retaining customers' business, and their involvement with their retail sites, in terms of motivating frequent visits to the site, purchasing more and spending more time on the site than other comparable websites.

As a direction for expanding this research for gaining fuller understanding on the CMS, it might be fruitful to test the direct paths from the Quality dimensions to the CSM. Additionally, the proposed research model can be modified to test the role of customers' perceived value as an antecedent to the CMS behaviors, and to examine its relationships with two of the frequently cited loyalty elements, viz., the site customers' switching costs and word of mouth behavior.

## **Appendix 1: Measurement items**

**E-satisfaction:** Satisfaction with this website exceeds my expectations; Overall the performance of this website exceeds my expectations; and satisfaction with my experience on the Site.

Attitude towards the website: This website has personal meaning to me; I feel I belong to this website; I like this website much more than other comparable websites. Customer Share of Mind: I purchase more from this website than other comparable websites; I spend more time, visit more frequently, and spend more money on this website than other comparable websites.

Website quality attributes (Retained after exploratory factor analysis): Overall Appearances : Appearance of website ; Website look and feel ; website design ; Updated content: Frequency of content update ; Search bar functionality; Information for purchasing; Navigational Quality: Availability of help services; Connectivity to other websites; Directions for using the website; Site map for self-help; Information Quality: Information accuracy; Current information; Security features; Site Design: Harmony of Website design; Order placing process ; Quality of photos ; Arrangements of links & graphs; Interactivity: Website offers multiple modes of contact (online, email, phone); encourages use of two-way communication tools; and encourages on-demand product information, and Interaction with the website operator.

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