Examining online consumers' behavior: A service-oriented view

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A B S T R A C T

Retailers’ websites are an important interface between retailers and their customers. The various features and elements that retailers include on their websites play a critical role in attracting customers and ensuring their satisfaction with the online shopping process. By conducting a three-phased study, we identify how the elements of a website shape customers’ salient beliefs. These salient beliefs, in turn, determine the level of customers’ satisfaction with the website. This study provides both theoretical insights into the beliefs of online shoppers and practical insights for retail website operators. Specifically, we argue that when retail websites are constructed to include several specific elements that appeal to the key salient beliefs of information quality, service quality, and system quality, retailers will increase customers’ satisfaction with the online shopping process.

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1. Introduction

Products and services are increasingly being marketed online. Designing effective websites that include advanced information technology is vital to the success of many retailing ventures (Pavlou & Pygenson, 2006). Effectively designed websites enable retailers to cultivate better relationships with their customers – and also to initiate relationships with potential customers (Kumar & Benbasat, 2006). Websites have become a highly valuable channel for retailers, one that enables them to sell products and services to customers, as well as to interact and communicate with those customers during each phase of the sales process (Song & Zahedi, 2005). The importance of websites is particularly important as the world transitions to a more service-oriented economy (Rai & Sambamurthy, 2006) where the Internet can be used as a channel to provide both services and product-service bundles to customers. Poorly designed websites, inadequate information provided by retailers, and fears of inadequate security of personal information are but a few reasons why some retail websites have yet to fulfill their potential (Song & Zahedi, 2005).

In light of the importance of retail websites, and in light of the numerous failures that have taken place, there is a critical need to examine how to improve customers’ satisfaction with the online shopping experience. Helping online customers assimilate information and effectively utilize the available technologies are only partial answers. Researchers must also help practitioners understand how customers’ beliefs and attitudes impact the shopping experience. An understanding of these beliefs and attitudes has the potential to help retailers increase the stickiness of their websites and also to help increase customers’ willingness to purchase products from them. Therefore, we investigate the following two research questions. First, “What are the salient beliefs of customers that determine their level of satisfaction?” A related second question is, “How do the different design elements and technological features of websites influence customers’ salient beliefs?”

As we address these research questions, we endeavor to make three contributions. First, we examine the salient beliefs of customers in online environments to provide the IS research community with an empirically supported understanding of what belief constructs influence satisfaction and should therefore be considered in e-commerce research. Second, we review and identify important elements of retailers’ websites that influence customers’ salient beliefs. Our identification provides a comprehensive and sophisticated way to understand what information should be included on retailers’ websites. Third and finally, our results explain how retailers should design or redesign their websites. Our theoretically grounded approach and our empirical results provide a foundation that suggests additional research projects as well as guidelines for practitioners.

The paper proceeds as follows. In the next section, we present the theoretical background for our study, explain our research model, and develop our hypotheses. As we develop our hypotheses, we argue that various elements of websites impact customers’ salient beliefs, and then that that these salient beliefs influence

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customer satisfaction. The proposed hypotheses are then tested using survey data collected during a three-phase study. Data is analyzed using structural equation modeling and we find strong support for our model. Finally, we discuss the findings and their implications for research and practice.

2. Theoretical background and development of hypotheses

In our study, we adopt expectancy-value theory (EVT) as our overarching theory (Fishbein, 1963). EVT explains how individuals’ attitudes towards objects and actions are formed, describing the mental calculations that individuals undertake to develop attitudes. Specifically, EVT states that when individuals receive information about an object or action, they develop a belief about that object or action. These beliefs can either be developed from nothing, with no prior belief about the object or action, or if the individual already possesses a belief about the object or action, that preexisting belief can be modified based on the new information that has been presented. After developing or updating their belief, the individual assigns a value to each attribute upon which the belief is based. Finally, an expectation is formed based on the beliefs and values. This expectation, formed by a mental calculation about the beliefs and values, is called an attitude (Fishbein & Ajzen, 1975). Thus, EVT states that information shapes individuals’ beliefs, which in turn shape those individuals’ attitudes.

This theory is particularly relevant to the questions that we are investigating. We are examining what information, design elements, and usability features of websites clearly convey information to individuals. According to EVT, external stimuli influence the formation of online shoppers’ beliefs. When information is comprehensive and when technology is used to present that information clearly, beliefs can be affected. We are also investigating what beliefs influence one of the most important of customers’ attitudes: satisfaction. We apply EVT to explain that after external stimuli help online shoppers form beliefs, the shoppers perform mental calculations to form an attitude, specifically, to form a degree of satisfaction. Our conceptual framework aligns with EVT and shows that information, in the form of external stimuli, shapes customers’ salient beliefs (see Fig. 1). This assertion is supported by recent e-commerce research that shows that environmental stimuli, including the characteristics of websites, influence customers’ cognitive and affective reactions (Parboteeah, Valacich, & Wells, 2009). Customers’ salient beliefs are then used to help customers formulate an attitude: their degree of satisfaction. We now begin the development of the specific hypotheses that we test in this study.

2.1. Beliefs that influence satisfaction

Satisfaction has been studied as a major dependent construct when examining information and systems quality (DeLone & McLean, 1992; Melone, 1990). Satisfaction can be defined as an individual’s feelings towards a variety of factors that affect a given situation. This definition leads researchers to view satisfaction as an attitudinal construct (Wixom & Todd, 2005). In line with this prevailing view, we view satisfaction as an attitude since online customers’ feelings are affected by various factors when they browse or shop for products or services.

One of the key questions in e-commerce research is how customer satisfaction can be influenced. Building from EVT as well as earlier research, we posit that there are three salient beliefs that influence the key attitude of customers’ satisfaction, information quality, service quality, and system quality. We will now discuss each of these salient beliefs in turn.

First, we note that IS researchers have investigated various aspects of quality in information system usage. There are several dimensions of end-user satisfaction, including accuracy, understandability, relevance, completeness, and currency (McKinney, Yoon, & Zahedi, 2002; Wixom & Todd, 2005). Each of these dimensions can be understood as individual aspects of a single, overarching information quality construct. IS theories of end-user satisfaction have shown that information quality is of great importance to customer satisfaction (DeLone & McLean, 2003).

Second, research in IS has identified that service quality impacts customer satisfaction. Perceived service quality, often measured using the SERVQUAL instrument, has various dimensions, such as responsiveness, reliability, tangibility, assurance, and empathy. Researchers have shown that these dimensions impact user satisfaction (Jarvenpaa & Todd, 1996; Kettinger & Lee, 1997, 2005). In addition to these dimensions that have been identified, it has been suggested that reliability, responsiveness, rapport, and tangibility be added to the SERVQUAL instrument (Kettinger & Lee, 2005). Each of these dimensions, both the current set as well as the proposed new ones, are understood as individual aspects of an overarching service quality construct.

Third and finally, information system quality greatly influences the level of end user satisfaction (DeLone & McLean, 1992, 2003; McKinney et al., 2002; Wixom & Todd, 2005). In several of these studies, factors such as accessibility (or download delay), usability (or format), and entertainment (navigability) are aspects of a system quality construct. We therefore hypothesize that

Hypothesis 1. Perceived information quality positively influences satisfaction.

Hypothesis 2. Perceived service quality positively influences satisfaction.

Hypothesis 3. Perceived system quality positively influences satisfaction.

2.2. Shaping perceptions of quality

The broad macroeconomic trend towards service-based economies in developed nations has led IS researchers to focus on service management and service quality. Researchers in marketing have suggested that the existing “goods-dominant” logic of quality can be complemented by the development of a service-oriented logic (Vargo & Lusch, 2004). Service has been conceptualized as an application of competences for the benefit of another entity (Vargo & Lusch, 2004). In the service-focused view, value is always co-created by the seller and the customer, implying that marketing is “a continuous series of social and economic processes” (p. 5). This view also explains that customers’ perception of economic activity has shifted from the traditional goods-oriented view to a service-centered view. Thus, service is growing in importance and researchers should continue to investigate how customers perceive service quality.

In the current business environment, companies are being challenged to provide innovative leadership in service and service systems (Rai & Sambamurthy, 2006). Such systems enable firms to build competitive advantage and can thus become a driving factor for business performance (Rai & Sambamurthy, 2006). Providing digitally enabled service through their systems for customers is thus a growing priority for businesses. It innovation enables companies to provide better service to customers and profoundly reshapes how services are offered and delivered.

In the context of e-commerce, retailers can develop web-based systems as a way to deliver information to consumers. Information can be digitized and delivered online in a way that reduces costs to the retailer and generates value for the consumer. For