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Recommended Citation

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THE INTERACTIVITY OF INTERNET-BASED COMMUNICATIONS: IMPACTS ON E-BUSINESS CONSUMER DECISIONS

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Abstract

Various Internet-based technologies have been used to offer online customer service. Common to these technologies is their ability to support interactive communication in exchanges with customers. This paper examines the impacts of communications interactivity on customer decision behaviors. We propose that interactivity can improve customer satisfaction and trust through perceptions of responsiveness and mutuality, which further increase customer intentions to buy. We are in the process of developing, operationalizing, and testing a model of interactivity impacts to examine these relationships. The research uses experiments to collect data and PLS to analyze the data.

Keywords: Interactivity, consumer decisions, customer service, Internet, communication, media choice, PLS

1 INTRODUCTION

For enhanced customer service, businesses have been using Internet-based technologies such as frequently asked questions (FAQs), self-help, e-mail, live chat, and VoIP (voice over IP). Common to these Internet-based communication technologies is their ability to support interactive exchanges that approximate face-to-face conversation. There is a growing impression among marketers and information systems (IS) professionals that such interactivity is desirable for building customer relationships.

The interactive capabilities of Web technologies offer firms new ways to build brand identity and brand loyalty. Cuneo (1995) argues that customer interaction facilitates relationship marketing and customer support to a greater degree than traditional media (TV, broadcasting, etc.). Ghose and Dou (1998) found that Websites providing interactive customer support were more likely to be considered to be high quality. Berthon et al. (1996) further suggested that the degree of interactivity of an e-commerce site is critical in converting visitors into returning customers. It appears that visitors to an interactive site are more inclined to positively evaluate the site and make favorable purchasing decisions than are visitors to a less interactive site.

Although interactive technologies are being widely used to improve customer service, very little is known about how these technologies actually impact customer behaviors. Specifically, it remains unclear how the interactivity of Internet-based communications affects customer perceptions of their interactions with the vendor, and how customer perceptions of interactions affect customer relationship outcomes. In our research, we develop, operationalize, and test an interactivity impact model based firmly on theory and integrated with research results from the marketing, consumer behavior, and information systems literatures. We are empirically validating the model through an experiment and examining the impacts of interactivity on consumer perceptions and behavioral outcomes.

2 RESEARCH OBJECTIVES

The main objectives of this research are (1) to develop a conceptual model that captures the essence of customer interactions in the context of Internet-based customer services and (2) to investigate the effects of customer interactions on consumer perceptions and behavioral outcomes. More specifically, we investigate the role of interactivity on perceptions of the constructs of (1) responsiveness and (2) mutuality in communications and the effects of these perceptions on (3) customer satisfaction, (4) trust, and (5) intention to buy. In addition to contributions via construct validation and theoretically derived causal relationships, the research also offers suggestions to vendors in choosing media for online customer service, findings which should be of great interest to e-business practitioners.

3 RESEARCH MODEL AND THEORETICAL BACKGROUND

Drawing upon theories of media choice and consumer decision making, our model relies on principles of task-medium fit, articulated in work such as that of Straub and Karahanna (1998). It also relies on assumptions that consumer decisions are an information processing process (Bettman 1979). According to media choice research, a medium is chosen for optimal performance by matching medium to task requirements. For example, information richness theory holds that highly equivocal tasks call for information-rich media while highly uncertain tasks call for lean media (Daft and Lengel 1986). Similarly, highly interactive communication modes are desirable in creating shared interpretive contexts while low interactive communication modes fit better for situation with shared contexts (Zack 1993).

The consumer decision is viewed as an information processing process in which the consumer seeks information from his/her environment, processes this information, and then makes a choice from among alternatives (Bettman 1979). In the decision-making process, the consumer tries to accomplish two preeminent goals: (1) to maximize the accuracy of decision and (2) to minimize the cognitive effort required to make a decision (Bettman et al. 1998). Due to bounded rationality (Simon 1955), however, consumers may trade off decision quality for a reduction in their information-searching effort (Bettman et al. 1990). To avoid compromising decision quality, consumers seek out the assistance of decision aids. For e-commerce customers, such decision aids include online customer service or support via Web pages, FAQs, e-mail, live chat, and other tools, all of which involve some form of communication. As in most service situations, e-commerce customers expect responsiveness, empathy, reliability, tangibility, and assurance (Parasuraman et al. 1991) from their interactions with online customer service representatives. To interact with customer service representatives, customers are thought to prefer a communication type that best matches expectations for service according to the theory of task-medium fit.

Interactive communication results in perceptions of responsiveness and mutuality. These are the qualities desired by customers in customer service. Customers who choose interactive modes for customer interchanges are thought to be more satisfied and to trust the service provider more. As a consequence, they have stronger intentions to purchase from the service provider.

Empirical evidence from the fields of consumer behavior, marketing, and information systems indicates that interactivity positively affects perceptions of customer-firm interactions, which in turn positively affect customer relationship outcomes. These impacts and relationships are collectively represented in the interactivity impacts model (Figure 1), reflecting several literatures and theory bases.

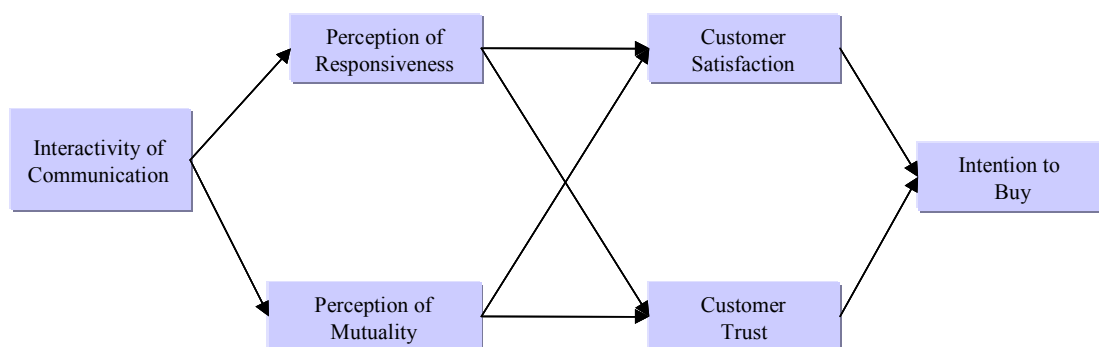


Figure 1. Research Model

3.1 Interactivity

Interactivity is a characteristic of the communication process. It is defined as the extent to which later messages in a sequence of communication exchanges relate to earlier messages and their references to even earlier messages (Rafaeli 1988). Interactivity varies along a continuum from declarative (one-way) to reactive (two-way) to fully interactive communications, which are even more intensive. In fully interactive communication, later messages not only respond to previous messages, but also incorporate their reference to the content, nature, and form of earlier messages, which is absent in a reactive communication (Rafaeli and Sudweeks 1997).

Consistent with the theory of interactivity (Burgoon et al. 2000), in which structural properties of interactivity exert impacts through perceptions of interactivity, our study examines the effects of interactivity through two perceptions of interactive communication: responsiveness and mutuality. Responsiveness is a desired behavior in customer service (Parasuraman et al. 1991). It is defined as the extent to which later responses are rapid and related to earlier messages. Responsiveness in interactive communication is supported by the characteristics of interactivity such as immediate feedback, simultaneous exchange, and continuous feedback. Mutuality is one of the essential preconditions for communication to happen in that communication requires a mutual other-orientation and belief in shared background. Mutuality in communication creates the feeling of being connected and understood and the perception of sharing meanings. It also leads to harmonized actions with others (Burgoon et al. 2000). We believe that responsiveness and mutuality, if conveyed and perceived properly, will improve customer experience in the customer service and positively affect customer relationships, as explained in the following sections.

Highly interactive communication enables communicators to respond to each other immediately and supports simultaneous and continuous exchanges of messages. Highly interactive communications also accelerate sharing understanding of messages and mutual constructions and interpretations of messages and, thus, enable senders and receivers to achieve mutual understanding more quickly. We expect that the interactivity of the communication process will be positively related to responsiveness and mutuality.

3.2 Responsiveness

Immediate and relevant responses, in general, increase the effectiveness and efficiency of communication by facilitating understanding between senders and receivers. In the service industry, a quick response conveys a sense of urgency. Timely, responsive communication can also foster trust by assisting in resolution of disputes and aligning perceptions and expectations (Etgar 1979). Thus, to the extent to which timely, immediate responses strengthen customer reliance and confidence in a service provider, positive relationships can be expected between responsiveness and satisfaction and responsiveness and trust.

3.3 Mutuality

Mutuality facilitates building a shared interpretive context in which communicators are likely to reach a mutual understanding about certain topics (Zack 1993). In the context of customer service, a mutual understanding between customers and vendors of customer needs and vendor capability can minimize disconfirmation by aligning expectations with performance. High mutuality also leads to more favorable perceptions of partner credibility and attraction (Burgoon et al. 2000). In customer services, high levels of mutuality of customer representatives in the communication process gives customers the feeling of attention and care, and in turn increase customer trust in the service provider (De Ruyter and Wetzels 2000). Thus, we can expect a positive relationship between mutuality and satisfaction and trust.

3.4 Satisfaction, Trust, and Intention to Buy

Customer satisfaction has been noted as a post-purchase attitude after experiencing a product or service. We contend that if a customer has received a satisfactory customer service, s/he is more likely to purchase more and more often. Trust is a major determinant of human behavior across many social and economic conditions. If a customer has trust in a vendor's goodwill, reliability, and integrity, s/he is likely to cooperate and commit to the relationship with the vendor (Morgan and Hunt 1994). We, therefore, expect positive effects of satisfaction and trust on intention to buy.

4 RESEARCH METHODOLOGY

An experiment is being conducted to test constructs and relationships in the interactivity impacts model. The experiment is a lab experiment without the experimental control of lab settings. The media of Web pages, e-mail, and live chat serve as surrogates for treatment levels in the experiment. We manipulated the assignment of the treatments by randomly assigning them to the subjects.

The experiment utilizes a Web site created specifically for this research. The research Web site delivers the experimental tasks, controls assignment of treatments, presents the experimental instrument, and collects data. The research Web site uses two Web frames: one at the bottom of the browser presents the experimental instructions, and the other in the center of the browser shows the experimental environment. The experimental environments are the sites of the selected online retailers that provide customer service via Web pages, e-mail, and live chat. The subjects are required to browse the retailer site, select a product, and initiate a customer service communication using one of the media. Upon completion of the communication, immediately in the case of Web pages, in minutes for chat, and in days for e-mail, the subjects are required to fill in the questionnaire. Since the experiment uses online retailers as the experimental environment and their service as treatments, the experiment is strong in terms of critical realism.

Data will be analyzed quantitatively in two stages. The first stage of the analysis includes assessment of the reliability (internal consistency) and construct validity of measures used to operationalize constructs in the study. The second stage of analysis involves the testing of hypotheses. Partial least squares (PLS) has been chosen as the primary technique for analysis.

As one of the two major structural equation modeling (SEM) techniques (Boudreau et al. 2001), PLS facilitates analysis and examination of latent variables as well as the evaluation of the relationships among the latent variables (Hair et al. 1998). The decision to use PLS for the study was made, first, because the study involves latent variables and multiple interdependent relationships in the research model, a situation where SEM-based techniques are preferred, and second, and more particularly relevant to this study, because PLS has minimal demands on the sample distribution requirements and sample size limitations imposed on other SEM techniques such as LISREL (Chin 1998).

5 CURRENT STATUS AND PLAN

To date, we have developed the research Web site as the experimental platform on which to deliver experimental tasks, assign treatments, and collect data. We have completed the development of the measurement model and a pilot test to validate the measures. Data has been collected and preliminary data analysis has found support for the research model. We are currently finishing the main experiment which tests the structural model and hypothesized relationships. We expect the entire process of data analysis and reporting of final results to take three months.

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