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CUSTOMER PERCEIVED TRANSACTION SATISFACTION WITH ELECTRONIC SERVICE ENCOUNTERS: A CRITICAL INCIDENT ANALYSIS OF BOOK PURCHASING AND STOCK TRADING ON THE WEB

Nelson Massad
Syracuse University

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Nelson Massad
Syracuse University
nmassad@syr.edu

Introduction

During the last few years, the World Wide Web (referred to hereafter as the Web) has changed the way customers and service providers have traditionally conducted business. This change has manifested itself is in the explosive growth of electronic commerce. According to Boston Consulting Group, Web-based business-to-consumer (B2C) sales will increase to $168 billion by 2005 (www.nua.ie, 2001).

The Web provides an environment that has expanded the traditional roles of customers and businesses. It has empowered customers to access vast amounts of information about a wide range of products and services across different service providers. Furthermore, the Web allows customers to conduct business with a wide number of service providers without being restrained spatially or temporally. The proposed study is a first step in exploring how the transactions between customers and service providers take place on the Web.

Problem Statement

In the electronic context of the Internet, there is a body of research investigating online buying and shopping behaviors (Li et al., 1999), online consumer trust (Hoffman et al., 1999), impacts of electronic commerce on local communities (Steinfield & Whitten, 1999), Web interfaces (Lohse & Spiller, 1999), and so forth. Furthermore, there is a considerable body of research investigating customer satisfaction with service encounters in traditional industries such as airlines, restaurants, hotels (Bitner et al., 1990), banks, auto mechanics, health care (Keaveney, 1995), and information technology help desks (Heckman & Guskey, 1998).

This research, however, has been limited to face-to-face service encounters or phone service encounters. There is little research investigating customer satisfaction with Web service encounters. The Web is a rich medium that provides an environment for the interactions between customers and service providers in service encounters. As such, we need to explore the antecedents of customer satisfaction with Web transactions that take place in the form of service encounters in this new and not fully explored environment of the Web.

Customer satisfaction is very important to businesses because it has been empirically linked to word-of-mouth communication, repurchase intentions/behaviors, and profitability. Satisfied customers engage in positive word-of-mouth communication while dissatisfied customers engage in negative word-of-mouth communication (Richins, 1983). Satisfied customers are also more likely to engage in repurchasing intentions/behaviors than dissatisfied customers (Oliver & Swan, 1989). All things being equal, there is evidence that suggest that service providers with higher customer satisfaction can expect higher profits than service providers with lower customer satisfaction (Bernhardt et al., 2000).

Furthermore, after a series of discrete satisfying experiences with a service provider, a customer crosses into what is referred to as the loyalty stage (Oliver, 1997, 1999). Once a consumer reaches this loyalty state, a service provider is considered to have built

a relationship with the customer. Building and maintaining relationships with existing customers is very important for service providers because it is more cost effective for service providers to retain existing customers than to acquire new ones. Online service providers lose $20 to $80 on each customer the first year because of the high cost of acquiring a customer, but can make up for the loss in the long run by retaining loyal customers (Reichheld & Schefter, 2000). Online service providers can spend up to 2.5 times more than their bricks-and-mortar counterparts to acquire new customers (Kenny & Marshall, 2000). Furthermore, loyal customers engage in positive word-of-mouth communication and repurchase behavior, which means more revenue for the service provider in the long run (Sheth & Parvatiyar, 1995).

Realizing the importance of satisfying customers, businesses have devised mechanisms to elicit customer feedback on the products and services offered to them. Feedback of customer satisfaction/dissatisfaction allows service providers to tailor their products and services to meet their customers' preferences and wants. Customer satisfaction has been recognized as an important concept in traditional business, and it is perhaps more vital for the survival of online businesses.

Conceptual Framework

Researchers (Czepiel, 1990; Mohr & Bitner, 1995) believe that the quality of the interaction between customers and service providers in the service encounter is important because it is at this level where customers judge the service provided to them.

They agree that a service encounter is composed of *a service outcome* (i.e., what the customer receives during the exchange) and the *process of service delivery* (i.e., the way through which the outcome is delivered to the customer). They maintain that customer satisfaction with service encounters is a combination of the customer satisfaction with the service outcome and the customer satisfaction with the process of service delivery.

Moreover, customers with multiple encounters with a service provider will develop an overall perception of service quality and, hence, an overall satisfaction or dissatisfaction with the service provider. Perceived service quality and the overall satisfaction with the firm are attitudinal constructs. These constructs are more enduring in nature when compared to the transaction satisfaction construct, which is transitory. The following figure represents the conceptual framework guiding the present study:
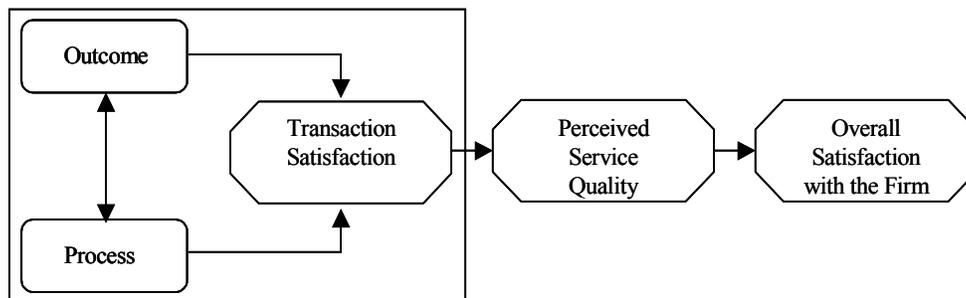
Figure 1. Service Encounter Conceptual Framework (Mohr & Bitner, 1995)

While perceived service quality and overall satisfaction with the firm are important concepts, they are beyond the scope of the present research. The proposed study will concentrate on customer transaction satisfaction with Web services (inside the box in Figure 1).

Relevant Literature

The researcher considers the following streams of literature to be relevant for the proposed study: Service encounter literature, service classification literature, and customer satisfaction literature. The literature on service encounters provides a rich body of research that describes the transactions between customers and service providers in a bricks-and-mortar environment, hence, providing valuable insight to the present study. A preliminary taxonomy of the antecedents of customer satisfaction with service encounters will be drawn from this literature. This initial taxonomy will serve as a guide in the data analysis phase.

The service classification literature informs the proposed research with respect to the different dimensions in classifying services in a bricks-and-mortar environment. There are few taxonomies that classify services in the context of the Internet; however, these taxonomies are not comprehensive. There are some dimensions of services in the bricks-and-mortar environment that may be applicable to the Web environment. Studying services dissimilar on several dimensions may shed light on possible differences between the antecedents of customer satisfaction with Web service encounters.

The literature on customer satisfaction provides insight for the present study on how customers evaluate the quality of their encounters with service providers. The construct of satisfaction is used to situate the customer in a previous service encounter with a service provider.

Research Questions

In order to study the antecedents of customer satisfaction with Web service encounters, the researcher has chosen to investigate book purchasing and stock trading on the Web. The researcher selected these services because of practical and theoretical reasons. From a practical perspective, the book-purchasing and the stock-trading businesses are mature and established industries on the Web. From the inception and during the continued growth of electronic commerce via the Web, book retailers and stock trading companies created and successfully maintained a presence on the Web.

From a theoretical perspective, book purchasing and stock trading on the Web differ on several dimensions. By evaluating book purchasing and stock trading along these dimensions, the researcher may identify a certain set of antecedents for book-purchasing encounters that may be different from the antecedents for stock-trading encounters on the Web.

As such, the proposed research is guided by the following research questions:

RQ1.   What are the antecedents of customer satisfaction with Web service encounters?
    RQ1a.   What are the antecedents of customer satisfaction with online book purchasing?
    RQ1b.   What are the antecedents of customer satisfaction with online stock trading?
    RQ1c.   How, if at all, do the antecedents differ across the industries of online book purchasing and online stock trading?
RQ2.   How do the antecedents of customer satisfaction with Web service encounters identified in this study differ from those identified in the traditional face-to-face service encounters?

Methodology

Method

The proposed study will implement a self-administered Web survey using the critical incident technique format. The critical incident technique is a systematic procedure for collecting events and behaviors that lead to the success or failure of a specific task (Flanagan, 1954; Grove & Fisk, 1997). Previous studies (Andersson & Nilsson, 1964; Ronan & Lathan, 1974) have confirmed that data collected using the critical incident technique are reliable and valid. Furthermore, there have been studies that collected valid and reliable critical incidents through self-administered questionnaires (Andersson & Nilsson, 1964; Meuter et al., 2000).

The researcher constructed the Web survey following the recommendations of the tailored-design method (Dillman, 2000) as well as general practices recommended in the implementation of a survey (Bickman, 1974; Bushman, 1984).

Sampling

The proposed study uses a purposive sample. In order to obtain a sample of sufficient size, the researcher will seek potential respondents from publicly available newsgroups and mailing lists on the Internet, from commercially available lists of users interested in the industries being investigated in the present study, and from online marketing research agencies.

The researcher will poll a number of listservs and newsgroups on the Web to participate in the study. People who have purchased books online and/or traded stocks online tend to be members of book-related and/or financial newsgroups and mailing lists.

Therefore, the researcher is more likely to find the target respondents in these newsgroups and mailing lists than in any other lists. These mailing lists and newsgroups are publicly available (liszt.com, Yahoo.com).

Data Analysis

An analytical framework for data analysis as outlined by Miles and Huberman (1994) will be used. A preliminary taxonomy drawn from the service-encounter literature will be used as a guide in analyzing the data. Through a deductive/inductive iterative process, the researcher aims to generate and/or refine categories of the preliminary taxonomy.

The process consists of the following overlapping phases:

- An initial deductive approach to determine if each behavior, feature, event, situation, perception, and so forth described in each critical incident fits into a category of the preliminary taxonomy identified from the literature.
- An inductive approach as new categories appear and irrelevant categories will be discarded from the taxonomy as critical incidents are collected and analyzed.
- The deductive/inductive iterations will continue until saturation of categories is reached.

In order to determine that a saturation of categories or adequate coverage has occurred, Flanagan's (1954) recommendations will be followed. The researcher will extract all discrete behaviors, features, events, situations, perceptions, and so forth from a random selection of 100 incidents. If all of the behaviors, features, events, situations, perceptions, and so forth in the 100 critical incidents fit into the taxonomy, the researcher can assume that adequate coverage has been reached. If a behavior, feature, event, situation, perception, and so forth from a critical incident does not fit in any category identified in the developing taxonomy, the researcher will modify the taxonomy to accommodate the critical incident. Then, 100 new critical incidents will be randomly selected and tested on the developing taxonomy again. The researcher will repeat this process until new critical incidents do not modify or enhance the taxonomy.

Significance of the Study

Theoretical Contributions

The Internet is a relatively new technology that has enabled the successful practice of electronic commerce. This has prompted researchers in different fields to study various aspects of the Internet. This research has further identified the need for empirical research on the viability and usability of the Web as a technology and as a conduit for commerce. The proposed study will inform existing and ongoing electronic commerce research.

By investigating service encounters in an environment (i.e., the Web) different than in previous research, the proposed research aims to refine the taxonomy of the antecedents of customer satisfaction with service encounters. Vaughan (1992) referred to this type of research as theory elaboration, where the aim is to "refine a theory, model, or concept in order to specify more carefully the circumstances in which it does or does not offer potential for explanation."

Moreover, the study informs the "relationship marketing" paradigm currently eminent in the marketing field. Gronroos (1996) states that the aim of relationship marketing is "to establish, maintain, and enhance relationships with customers and other partners, at a profit, so that the objectives of the parties involved are met." By identifying the antecedents of customer satisfaction with service encounters on the Web, the study will provide ways for service providers to consistently satisfy their customers in order to establish and maintain enduring relationships.

Pragmatic Contributions

Service providers already collect feedback from their customers. This feedback, however, may not be sufficiently rich. By collecting rich descriptions of customer-reported Web encounters, the present study provides online book retailers and online stock brokers with an increased understanding of their customers' experiences. This information offers these online service providers the ability to make informed decisions on how to improve their service to customers.

By identifying antecedents of customer satisfaction with online book retailers and online stock brokers, the study may provide these online businesses with suggestions on how to enhance the design of their Web sites to include those features that enhance customer satisfaction. Further, these online businesses may avoid those features that lead to customer dissatisfaction.

By identifying the antecedents of customer satisfaction with online book retailers and online stock brokers, the study informs these online businesses on ways to build and maintain relationships with their customers. As a result, these online businesses may move from a currently transaction-based model towards a more profitable relationship-based model.

Online stock trading and online book purchasing differ on several dimensions. Among these dimensions, an interesting one is the *method of service delivery* (entirely through the Web vs. not entirely through the Web). In collecting respondents' online stock trading stories, the present study attempts to learn whether the respondents were able to complete transactions entirely on the Web. Therefore, the study will inform businesses about the viability of "pure" electronic commerce.

Limitations of the Study

The population of this study is people who have had Web-based transactions with service providers, more specifically, people who have bought books online or traded stocks online. It is impossible to identify a complete list of people who belong to the population. Hence, random sampling is not a viable option. Even if the researcher were to assume that everybody using the Web has had some service encounter with an online book retailer or an online stock broker, randomly selecting individuals from the Web would require broadcasting unsolicited emails (i.e., spamming). Therefore, the present study relies on a non-probabilistic sampling method (i.e., purposive sampling) to enable data collection. In collecting data through purposive sampling, the study may introduce self-selection bias.

There is a limitation on the generalizability or transferability of the findings for the proposed study. The findings of the present study are limited to online book purchasing and online stock trading. These findings may not be generalizable to other types of online businesses. Even so, these results may be useful to businesses that are similar in nature to the ones studied in the present research. Furthermore, the types of Web services studied in the present research are in a commercial domain. Consequently, the findings of the present study may not apply to businesses in the non-commercial domain.

The present study utilizes a Web survey to elicit data from respondents. Since descriptions of critical incidents are collected through a self-administered questionnaire, the potential for ambiguity and misunderstanding in interpreting the incidents may be greater than in face-to-face/telephone interviews.

Despite these limitations, the study has potential for contributing to a deeper understanding of the complexities involved in conducting business on the Internet. The present study also enhances the taxonomy of the antecedents of customer satisfaction with service encounters in the bricks-and-mortar context to account for the electronic context of the Internet. This enhanced taxonomy may be tested in future studies for robustness, validity, and generalizability by studying services on the Internet other than the ones currently studied for the proposed research (i.e., online book purchasing and online stock trading).

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