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E-Service Customer Retention: the roles of Negative Affectivity and Perceived Switching Costs

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ABSTRACT

This paper examines the relationships between key drivers of e-service customer’s intention to continue to use an e-service. From expectancy confirmation theory (ECT) in consumer behavior literature and technology acceptance model (TAM) in IS, we hypothesize that e-service customers’ intention to continue to use an e-services is determined by the degree of customer satisfaction with e-service use and perceived usefulness of e-service. We also attempt to illustrate that perceived switching costs moderate the effect of perceived usefulness and satisfaction on continuance intention. Furthermore, negative affectivity, a dispositional affective stable broad trait measure, is hypothesized to affect the level of customer satisfaction with an e-service.

Understanding the effect of customer predisposition on satisfaction and the effect of perceived switching costs allows practitioners and researchers in IS to have better knowledge of e-service discontinuance behavior.

Keywords
E-satisfaction, perceived usefulness, perceived switching cost, negative affectivity, continuance intention, online service, e-service

INTRODUCTION

In today’s turbulent E-commerce environment, online companies need to have sustainable competitive advantage by staying ahead in the competitive game. Having cutting edge technology and value-added services are not sufficient anymore, they need to have a long-term client relationship strategy and constantly understand customers’ needs and know how to satisfy those needs to keep them coming back in the future. Industry’s studies reveal that on average, the cost of acquiring a new customer is five to ten times greater than the cost of retaining a current one. Such evidence underscores the relevancy and timeliness of studying customer retention behavior.

In academics, there is a consensus among researchers in customer retention that satisfaction is a major determinant of customer loyalty and thus to competitive advantage (Olsen, 2002, Montfort et al. 2000). Expectancy confirmation theory (ECT) has been widely used by researchers in the studies related to customer satisfaction (Oliver, 1980, Spreng et al., 1996; Wirtz & Bateson, 1998). However, it has also been used to extend beyond satisfaction to repurchase intention (Bolton et al., 2000; Bhattacherjee, 2001). Bhattacherjee (2001) brought the expectation (dis)confirmation paradigm of ECT from consumer...
behavior literature to explain IS continuance intention. The results from his studies support the hypothesized relationships between (dis)confirmation, satisfaction, perceived usefulness, and continuance intention. However, the individual difference due to trait negative affectivity has never been studied before in the context of ECT. Similarly, the concept of perceived switching cost that has been studied in marketing literature also has never been part of ECT.

We contend that it would be more beneficial to introduce the concept of negative affectivity and perceived switching costs to explain satisfaction and continuance intention in the e-service context. The objective of this study is to introduce the concepts of negative affectivity and perceived switching costs to the continuance intention model. Thus the research questions are:

1. To what extend do satisfaction and perceived usefulness affect customers’ continuance intention of e-service?
2. To what extend do (dis)confirmation and perceived usefulness affect the satisfaction of customer in the use of e-service?
3. Does perceived switching costs moderate the level of continuance intention of customers in using e-service?
4. Does negative affectivity affect the level of satisfaction of customers in using e-service?

We choose to study continuance intention is e-service because of its pervasiveness and the apparent importance of customer retention practices in the industry. E-services range from the electronic provision of traditional services, such as investing and airline ticketing, to intelligent interactivity in post-sales product support. (de Ruyter, Wetzels, and Kleijnen; 2001)

THEORETICAL BASIS AND HYPOTHESES

In this section we will discuss the theoretical basis supporting the hypotheses of the study. Please refer to the theoretical model shown in figure 1 on page 5.

Expectancy Confirmation Theory

According to expectancy confirmation (ECT) theory, the satisfaction of customer is determined by customer expectation prior to using the service and the (dis)confirmation of that expectation (Oliver, 1980). The term (dis)confirmation represents the (mis)match between the expectation and perceived performance. Positive disconfirmation happens when the perceived service or product performance exceeds the expectation. In contrast, negative disconfirmation happens when the real performance is lower than the expectation prior to use. Confirmation happens when the real performance is exactly the same as expectation. Positive disconfirmation and confirmation form a satisfaction, or affect. Satisfied consumers form a repurchase intention, while dissatisfied consumers discontinue its subsequent use or purchase. From this point on, for simplification purpose we use the term confirmation to refer to a continuum of the level of disconfirmation (negative disconfirmation-confirmation-positive disconfirmation).

Satisfaction has been defined in many ways by many authors. Recently, Oliver (1996, pp.12) defines satisfaction as: “Satisfaction is the consumer’s fulfillment response. It is a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfillment, including levels of under- or over fulfillment.” Empirical evidence supports ECT’s hypothesis that satisfaction is a major determinant of continuance intentions (or repurchase intention) (Oliver, 1989; Bhattacherjee, 1989). Several industry studies provide anecdotal evidence
to support this relationship. For example, a study by Inteco in 1998 cites negative experiences and dissatisfaction resulting from slow access or engaged lines, poor help lines, and other technical problems as ISPs’ subscribers’ primary reasons for quitting or staying with the service. The result of the study by Bhattacharjee (2001) also confirmed that satisfaction with system use is the strongest predictor of users’ continuance intention ($R^2 = 0.32$). Thus, our first hypothesis is:

**H1: Customer satisfaction positively affects the continuance intention of e-service.**

According to ECT confirmation and/or positive disconfirmation positively influence customer satisfaction. The reverse causes dissatisfaction. It is to note that in the original ECT, confirmation is inversely related to expectation and directly related to perceived performance. However, the result of the study by Monfort et al. (2000) on financial services suggests that the relevancy of disconfirmation is fairly apparent and that expectation have only an indirect influence on satisfaction. This finding supports Bhattacharjee’s extended ECT model that does not take expectation prior to use into account. Furthermore, since confirmation depends upon both expectation and performance, and expectation is dropped from previous works, we also do not take expectation and performance into account.

Previous studies of ECT provide support for the relationship between confirmation and satisfaction (Oliver, 1980, Bhattacharjee, 2001). Thus we hypothesize that:

**H2: User confirmation is positively associated with user satisfaction**

Since IS user continuance decision is similar to consumer’s repurchase decision of ECT because both decisions (1) follow an initial (acceptance or purchase) decision, (2) are influenced by the initial use (of e-service or product) experience, and (3) can potentially lead to ex-post reversal of the initial decision (Bhattacharjee, 2001). Thus, continuance intention was used in lieu of repurchase intention in extended ECT model of Bhattacharjee (2001). However, in order to adapt ECT to a different context it is better to extend the theory, due in part to its limitations and to the requirement of the IS context.

**ECT Extended with Perceived Usefulness**

TAM posits that perceived usefulness and perceived ease of use are fundamental determinants of user acceptance of IS. (Davis, 1989) Davis (1989) defines perceived usefulness as: “the degree to which a person believes that using a particular system would enhance his or her job performance. …A system high in perceived usefulness is one for which a user believes in the existence of a positive user-performance relationship.” Bhattacharjee integrated perceived usefulness into ECT and hypothesized that it is the predictor of continuance intention. He found that perceived usefulness explains almost 19% of continuance intention. Thus, hypothesis 3 is:

**H3: Perceived usefulness positively affects continuance intention of e-service.**

Perceived usefulness drawing from TAM is a kind of post-consumption expectation. In consumer behavior, ECT’s ex-ante expectation’s predictability to satisfaction has been supported by numerous studies as shown in the literature. Similarly, ex-post expectation (perceived usefulness) must also be associated with satisfaction. Thus, we formulate our fourth hypothesis as follows.

**H4: Perceived usefulness positively affects Satisfaction.**
In TAM, perceived ease of use is positively related to perceived usefulness. We argue that perceived ease of use and confirmation is similar in the sense that both of them are cognitive constructs stem from a person’s ex-post belief after performing an action (initial use of e-service). Hence we believe that higher level of confirmation will elevate the level of perceived usefulness while lower one will degrade the perceived usefulness of the e-service. The support for this is found in the theory of cognitive dissonance (Festinger, 1957) which posits that a person experiences cognitive dissonance if the pre-acceptance expectation is higher than the perceived performance after acceptance, and the person tends to adjust his/her perception according to the reality. Thus we hypothesize that:

**H5: User confirmation is positively associated with their level of perceived usefulness of e-service**

**Negative affectivity affects Satisfaction**

The concept of negative affectivity has been introduced by Watson and Clark (1984). It is defined as a stable and pervasive individual difference characterized by a tendency to experience aversive emotional states. According to Watson and Clark, people with high level of negative affectivity tend to:

- focus more on negative side of oneself
- be less satisfied with self and life in general
- report more negative emotions across time
- emphasize on how individual feel about the world rather than on how to handle oneself in the world.

Levin and Stokes (1989) developed an instrument to measure negative affectivity. They use it in their study of the role of negative affectivity as a dispositional determinant of job satisfaction. Previous works in the area of job satisfaction found that negative affectivity was significantly associated with job/task satisfaction (Levin & Stokes, 1989; Judge, Heller & Mount, 2002). Prior works in information systems discipline also attempted to study the role of individual differences in systems success (Zmud, 1979; Agarwal and Prasad, 1999). Woodroof and Burg (2003) also found significant negative relationship between negative affectivity and satisfaction with system use. Thus, we hypothesize that:

**H6: Negative affectivity negatively affects satisfaction with e-service use.**

**Perceived switching costs as moderator of continuance intention**

Perceived switching costs are consumer perception of times, money, and effort associated with changing service providers (Jones, Mothersbaugh, and Beatty, 2000). Switching costs are not confined only to the economic cost but it also includes psychological and emotional costs (Yang & Peterson, 2004). Switching costs vary from industry to industry. In e-service setting, switching costs might include those that are monetary, behavioral, searching and learning related hassles. Economic models of consumer behavior argue that consumers tend to weight the costs and benefits of a product or service before buying decision (Hauser & Wernerfelt, 1990, Ratchford, 1982). Hence, perceived switching cost should have negative effects on the discontinuance decision. When switching costs is perceived to be higher than switching benefits, customer is more likely to stay than to switch despite the dissatisfaction with e-service.

The results from previous studies support the hypothesis that perceived switching costs are the moderator of continuance intention or loyalty (Jones, Mothersbaugh, and Beatty, 2000; Yang & Peterson, 2004). Thus we formulate the hypothesis 7 and hypothesis 8 as the following:
H7: The higher the level of perceived switching costs, the greater is the likelihood that customer satisfaction will lead to greater customer continuance intention.

H8: The higher the level of perceived switching costs, the greater is the likelihood that customer’s perceived usefulness will lead to greater customer continuance intention.

Figure 1: Theoretical Model and Hypotheses

INSTRUMENTS

There are six constructs examined in this study: continuance intention, satisfaction, confirmation, perceived usefulness, negative affectivity and perceived switching costs. Constructs will be measured using multiple-items scales, drawn from previous research by Bhattacharjee (2001), Levin & Stokes (1989), and Jones, Mothersbaugh, and Beatty (2000). Table 1 summarizes the constructs, the definition, and instrument for each constructs.
Construct | Operational Definition | Instrument
---|---|---
Continuance Intention | User’s Intention to continue using the service | Extended from Mathieson (1991)
(dis)confirmation | User’s perception of the congruence between expectation of e-service use and its actual performance | Adapted from Bhattacherjee (2001)
Satisfaction | Users’ affect with (feeling about) prior e-service use. | Adapted from Spreng et al. (1996)
Perceived Usefulness | User’s perception of the expected benefits of e-service use. | Adapted from Davis (1989)
Negative affectivity | A stable and pervasive individual difference characterized by a tendency to experience aversive emotional states. | Levin and Stokes (1989)
Perceived switching costs | Consumer perceptions of the time, money, and effort associated with changing service providers. | Jones, Mothersbaugh, and Beatty (2000)

Table 1: Instruments

METHODOLOGY
To answer the research questions we will use online survey. The subjects will be the real e-service customers in the online banking industry. We chose to study this industry because of the manifested level of switching cost associated with this industry. An invitation to participate in the survey will be posted in three online forum. Incentives will be provided for respondents to make sure we will have enough subjects (minimum of 200).

Confirmatory factor analysis will be conducted to test the validity and integrity of the constructs and the measures. Then, structural equation modeling (SEM) will be use to test the hypotheses and model fit.

EXPECTED CONTRIBUTION
The expected contribution of the proposed study to the body of knowledge of IS literature is mainly to introduce customer trait negative affectivity as antecedence of satisfaction and perceived switching costs as moderator of continuance intention of e-service customers in ECT theoretical context. Understanding the effect of negative affectivity on satisfaction allows practitioners to partial out the effects of customer predisposition to satisfaction. Hence, the real effect of promotional efforts, customer services quality and perceived usefulness that are some of the determinants of customer satisfaction can be clearly examined. Likewise, understanding the moderating effect of perceived switching costs allows them to see how satisfaction is related to continuance intention.

REFERENCES