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An empirical analysis of the antecedents of electronic commerce service continuance

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Abstract

This paper examines key drivers of consumers' intention to continue using business-to-consumer e-commerce services. Multiple theoretical perspectives are synthesized to hypothesize a model of continuance behavior, which is then empirically tested using a field survey of online brokerage (OLB) users. Salient results include: (1) consumers' continuance intention is determined by their satisfaction with initial service use, their perceived usefulness of service use, and the interaction between perceived usefulness and loyalty incentives for service use, and (2) satisfaction and perceived usefulness are both predicted by consumers' confirmation of expectations from initial service use. Implications of these findings for e-commerce firms contemplating customer relationship management (CRM) initiatives are discussed. © 2001 Elsevier Science B.V. All rights reserved.

Keywords: IS use; Continuance; Customer satisfaction; Customer relationship management; Expectation–confirmation theory; Technology acceptance model

1. Introduction

As the Internet continues to redefine the rules of doing business by eliminating transaction inefficiencies, reducing costs, and lowering barriers to entry, more and more online firms are turning to customer relationship management (CRM) as a means of ensuring their survival in the Internet economy. CRM is a new customer-centric business model that reorients firm operations around customer needs (as opposed to products, resources, or processes) in order to improve customer satisfaction, loyalty, and retention [22]. Despite the fact the average investment in a CRM project is US$3.1 million and the expected payback period is 28 months, a recent survey of 300 large US firms found that 65% of responding firms demonstrated corporate awareness of CRM, 28% are currently planning or implementing CRM, and 12% have completed CRM implementation [22].

A customer-centric orientation is important for e-commerce firms for several reasons. First, as the online marketplace becomes increasingly fragmented and competitors are just a mouse-click away, retaining a firm's customer base (in addition to attracting new ones) is critical for sustaining revenue base, profitability, and market share. Second, superior customer experience is a more effective and less replicable differentiation strategy in the online marketplace than the more common cost leadership strategy

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(which has already led to margin erosion, reduced profitability, and subsequent demise of many online firms). Third, satisfied customers are a less expensive and more effective advertising channel (via word-of-mouth) than the print or mass media, due to the greater believability associated with personal experiences. Fourth, customer retention provides additional revenue opportunities via cross-selling (selling new products or services to existing customers) or upselling (enhancing customers' use of existing products or services). Fifth, acquiring new customers may cost as much as five times compared to generating repeat business from existing customers, due to the costs of searching for new customers, setting up new accounts, and initiating new customers to firm services [8,22]. As an example, a 5% increase in customer retention in the insurance industry typically translates into 18% reduction in operating costs [8].

However, a recent survey of 10,000 Internet customers of 16 leading US firms (including American Express, Ford Motor Credit, Hewlett-Packard, Nextel Communications, and Proctor & Gamble) found that only 36% of the respondents were satisfied with their online interactions, over 50% required phone calls or other offline means to resolve their problem, and 42% waited more than 24 h before receive any acknowledgement of their contact with the firm [14]. Such dissatisfaction often translates into lost customers and lost revenues. For instance, Carl [7] found that the number of subscription cancellations (discontinuance) for the top five internet service providers (ISP) in North America exceeded that of new subscriptions during certain months of 1995. In general, it appears that users of e-commerce services demonstrate little loyalty toward their service providers, forcing service firms to deploy loyalty programs (e.g., frequent flyer miles) to motivate customer retention. However, the efficacy of such programs has not yet been examined.

Improving customer satisfaction and retention may be more challenging in the Internet economy than in the traditional economy. Customers today are more demanding than ever before, are more information empowered to make their own decisions, and want their needs met immediately, perfectly, and for free [8]. Additionally, they have several online and offline options to choose from, and unless there is a compelling reason for choosing one particular firm over another, they tend to experiment or rotate purchases among multiple firms [8]. The nature of online firms' interaction with customers is also transforming from traditional communication channels such as telephone and mail to electronic mail and web-based forms, from full-service to self-service, and from mass marketing to personalized marketing. It can therefore be expected that key drivers of customer satisfaction and retention in the Internet economy may be fundamentally different from that in the traditional economy. Until firms have a clear understanding of these drivers and implement a corresponding action plan, CRM programs initiated by these firms will only yield limited returns.

This paper examines the key motivations underlying consumers' intention to continue using e-commerce services and associations between these variables. Based on a synthesis of consumer behavior, information systems (IS) use, and several other literatures, customers' continuance intention is theorized as a function of their satisfaction with the service, perceived usefulness of that service, and loyalty incentives intended to enhance continuance. Both satisfaction and perceived usefulness are hypothesized as being predicted by consumers' confirmation of sales, service, and marketing expectations. The hypothesized research model is then tested via a field survey of online brokerage users, and appropriate modifications to the initial model proposed.

Results of the study offer unique insights for online firm managers on how to manage customer satisfaction and retention. The proposed model can help managers identify potential discontinuers *before* they actually discontinue, so that these individuals may then be targeted with corrective actions (e.g., incentives, training) to improve their chances of retention. It also contributes to the nascent body of work in CRM and the IS use literature by providing insights into salient relationships underlying post-acceptance decision processes.

The paper proceeds as follows. Section 2 proposes a theoretical model of customer satisfaction and retention in the CRM context. Section 3 describes the field survey used for testing the above model. Section 4 presents the results of statistical data analysis, and proposes a modified model based on the observed results. Section 5 discusses the study's implications for research and practice. The