Creating customer repurchase intention in Internet retailing: The effects of multiple service events and product type

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ABSTRACT

Internet retailing literature shows that customers' experience with a retailer's website and order fulfillment separately influence repurchase intention. This study examines these two experiences' interactive effects on repurchase intention. Our research model includes a product type as a moderator, because the type of product can likewise affect a customer's experience with the retailer's website and order fulfillment. Results of multiple-group structural equation modeling (SEM) from customer reviews of 306 Internet retailers demonstrate that the interactive effects of a web site experience and order fulfillment are significant. In the interactive mechanism, order fulfillment experience is proven to serve as a proximal cause of repurchase intention. The moderating role of product type is significant as well. This finding suggests that practitioners should have unmatched measures for retailing different types of goods.

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1. Introduction

As we all witnessed, Internet retailing emerged and then thrived over the past two decades, and its ongoing evolution is a given. In this service sector, creating customer repurchase intention, which reflects customer loyalty, represents a key managerial goal (Reichheld and Schefter, 2000; Parasuraman et al., 2005). Previous studies tell us that customer repurchase intention is created from a retailer's two service events in different settings: online at a retail website and offline for order fulfillment (Heim and Sinha, 2001; Szymanski and Hise, 2000; Rao et al., 2011; Collier and Bienstock, 2006; Parasuraman et al., 2005; Koufaris, 2002; Devaraj et al., 2002). However, it is not clear how the two events interact with each other to create repurchase intention. This study examines the interactive effects of both events on customer repurchase intention.

An Internet retailer's website offers technology-based interaction with online customers with the goal of attracting their attention and collecting orders. The fundamental significance of web interaction has been highlighted by such concepts as "flow," indicating the total sensory involvement with an electronic service channel (e-channel) (Novak et al., 2000; Koufaris, 2002; Gao and Bai, 2014), and "website quality" (Loiacono et al., 2002; McKinney et al., 2002; Kim and Stoel, 2004; Shobeiri et al., 2013), or more broadly, "e-service quality" (Parasuraman et al., 2005; Collier and

Bienstock, 2006; Fassnacht and Koese, 2006). These studies suggest that a retailer's website as an e-channel conveys the moment of truth with unique service quality attributes that create customer satisfaction and repurchase intention (Ba and Johansson, 2008; Parasuraman et al., 2005).

In contrast, retailers' order fulfillment requires back-stage operations, with the goal of delivering an item ordered online on time to the customer. Ironically, the use of a website as an advanced digital storefront deepens the dependence of business success on order fulfillment (Maltz et al., 2004; Sousa and Voss, 2006). As evidence, full-scale delivery failures during the holiday season around the new millennium devastated high customer expectations set by digital storefronts, and increased public anxiety over online shopping (Hallowell, 2001; Ricker and Kalakota, 1999; Scheraga, 2000). This industry experience suggests that limiting the scope of an e-service encounter to web interaction risks missing important drivers of customer loyalty (Boyer et al., 2002; Pei et al., 2014; Cao and Zhao, 2004). A sizable number of studies verify that Internet retailers' on-time delivery brings customer satisfaction and repurchase intention (Heim and Sinha, 2001; Collier and Bienstock, 2006; Thirumalai and Sinha, 2005; Davis-Sramek et al., 2008; Rao et al., 2011).

By integrating those two heterogeneous events of service interaction, this study seeks an answer to the question: "What is the exact mechanism for creating customer repurchase intention from these two events?" While significant advances have increased our understanding of these individual events, previous studies highlight only their independent effects, probably because these discrete events occur in different time frames (before and

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after ordering) via different media (a retail website and a delivery partner). However, exploring the interactive effects is important, because customer loyalty is driven by an overall experience with both events rather than with each separately (Sousa and Voss, 2006; Boyer et al., 2002). Finding an answer to the research question would be simpler if one could ignore the impact of product type. Unfortunately, each focal service event is proven to depend upon a product type (Huang et al., 2009; Thirumalai and Sinha, 2005; Pan et al., 2002). In particular, search products and experience products require different web attributes to attract customer attention (Huang et al., 2009; Hsieh et al., 2005). Therefore, our second research question is "Does the mechanism of creating repurchase intention work consistently with different product types? If not, what is the role of product type in the mechanism?"

This study views the overall service interaction as a *sequence* of two events: customers' experience with a retailer's order fulfillment occurs after that with the retailer's website. Therefore, customers' experience with a website will initially create repurchase intention, but the relationship will be affected by the subsequent experience with order fulfillment. Behavioral science principles provide useful insights for the sequence of service events (Verhoef et al., 2004; Hansen and Danaher, 1999; Chase and Dasu, 2001; Cook et al., 2002). The peak-end rule claims that in a chronologically ordered service process, a peak event—the most extreme and thus most memorable—and a final event dominantly influence a customer's evaluation of the process. Given that experience with order fulfillment is the final event in the focal service interaction, its effect on repurchase intention will be significant. Accordingly, the impact of product type can be inferred within the two consecutive events model, wherein each product type uniquely influences the two events. If a product type induces the high peak in the former event, the end effect will be reduced, and vice versa.

To validate the effects of multiple service events and the product type, empirical data are derived from customer reviews of a total of 306 Internet retailers within two retail sectors: clothing/accessories and electronics/computers. These two sectors have many comparable aspects of Internet retailing. A retail website that handles clothing/accessory items might focus on esthetics, while an electronic retail website might focus on presenting information on technical specifications. To answer the research questions, this study defines customer perception of service quality in the two events distinctively. *Order procurement quality perception* refers to customer perception of an Internet retailer's service quality during interaction with the retailer's website, while *order fulfillment quality perception* refers to customer perception of an Internet retailer's service quality during interaction with the retailer's order fulfillment.

This study advances our understanding of the mechanism that creates repurchase intention in multiple ways. An integrative approach enhances previous findings derived from studies that view these two events—order procurement and order procurement—independently. In addition, we investigate the effect of product type in the Internet retail context. This approach increases the generality of our proposed mechanism. Lastly, use of empirical data from customer reviews on actual retailers' service quality complements previous studies on behavioral sciences performed within a controlled laboratory environment.

2. Conceptual background

2.1. Order procurement quality perception

A retail website is a technological channel for self-service online shopping. Self-service technologies refer to "technological interfaces that enable customers to produce a service independent of direct service employee involvement" (Meuter et al., 2000). Technology dramatically changes the mode of service interaction and the route to customer loyalty. When a customer interacts with a service provider's self-service technologies, customer loyalty to the service provider depends solely on the customer's experience with the technological channel (Bitner et al., 2000; Meuter et al., 2000; Rayport and Jaworski, 2004). Applied to Internet retailing, customer repurchase intention largely depends on a customer's experience with a retailer's website.

A retail website drives a more complicated interaction than simple self-service technologies like an ATM machine outside a bank or pay-at-the-pump terminals in a gas station (Cho and Menor, 2010). This complexity explains the great diversity of e-service quality factors in the literature that reflects varied customer expectations from a retail website (Rowley, 2006). Parasuraman et al. (2005) find four dimensions of e-service quality, which they term E-S-QUAL: efficiency, system availability, privacy, and fulfillment. Among them, the first three are based entirely on web features. Collier and Bienstock (2006) reduce potentially numerous e-service quality dimensions to two, process quality and outcome quality, and explain that web features, such as web design and web information, are concentrated on the process quality dimension. Rowley's (2006) extensive literature review finds numerous studies on e-service quality, with each suggesting different web features as e-service quality components.

Those diverse web features can be classified as basic or specific. Basic web features represent common requirements for every website. Web esthetics and navigation characteristics are basic web features that contribute to establishing a comfortable web environment (Fassnacht and Koese, 2006), and to producing an enjoyable web experience (Mummalaneni, 2005; Loureiro and Roschk, 2014). Novak et al. (2000) and Koufaris (2002) argue that these basic web features serve to stimulate web users' holistic sensations and guide web users to total sensory involvement, a state that produces repurchase intention (Gao and Bai, 2014). In contrast, specific web features depend on a precise website goal. Internet retailing requires such web features as product selection and product information, which Szymanski and Hise (2000) term merchandizing features. Empirical evidence shows that those merchandizing features influence customers' product choices (Lurie and Mason, 2007), and repurchase intention (Heim and Sinha, 2001; Kim and Lennon, 2008).

2.2. Order fulfillment quality perception

From a service taxonomical perspective, order fulfillment belongs to the group of services called quasi-manufacturing, which is characterized by low customer contact and thus a high requirement for efficiency (Chase, 1978). Time-based operational competence in the level of supply chains is required to increase efficiency (Cho and Menor, 2012), which produces a positive customer perception of the retailer's order fulfillment (Cao and Zhao, 2004). From an industrial marketing perspective, Bienstock et al. (1997) note that the quality of physical distribution can be measured by multiple dimensions, such as timeliness, item availability, and order condition.

Order fulfillment in Internet retailing involves customized order handling, including picking, packing, and delivering in small quantities along retail supply chains. However, the literature shows that Bienstock et al.'s (1997) dimensions of physical distribution quality are applicable to Internet retailing as well. In addition, there is considerable evidence that those order fulfillment quality dimensions create customer repurchase intention (Heim and Sinha, 2001; Parasuraman et al., 2005; Rao et al., 2011). Parasuraman et al. (2005) highlight the importance of order