International Journal of Information Management 33 (2013) 927–939

Contents lists available at ScienceDirect

International Journal of Information Management

journal homepage: www.elsevier.com/locate/ijinfomgt

The mediating role of consumer trust in an online merchant in predicting purchase intention

Ilyoo B. Hong*, Hoon S. Cha

College of Business and Economics, Chung-Ang University, Bubhakkwan Bldg., Rm. 1404, 221 Heuksuk-dong, Dongjak-ku, Seoul 156-756, Republic of Korea

ARTICLE INFO

Article history:
Available online 26 September 2013

Keywords:
Online shopping
e-Commerce
Perceived risk
Trust
Purchase intention

ABSTRACT

It is widely known in related literature that trust in a merchant reduces the perceived risk of an online transaction. However, there are theoretical reasons to postulate that the perceived risk acts as a barrier to consumer trust. Furthermore, existing studies suggest that trust is an important predictor of purchase intention. Thus, this research aims at investigating the mediating role of consumer trust in an online merchant in the relationships between components of perceived risk and purchase intention: (1) examining the total effect without mediation, and (2) examining the mediation effect. When we probed the total effect, the findings revealed that performance, psychological, financial, and online payment risks have a significant negative influence on purchase intention. On the other hand, an examination of the mediation effect indicated that trust in an online merchant completely mediates the effect of performance risk, but partially mediates that of the psychological risk. Given the mixture of unmediated as well as mediated effect of perceived risks on purchase intention, the paper concludes that efforts, made by online merchants, to lessen certain types of risk will first improve consumer trust, and then ultimately, increase consumer's intention to buy online.

1. Introduction

Internet-based commerce has undergone explosive growth over the past decade as consumers today find it more economical as well as more convenient to shop online. Nevertheless, the shift in the common mode of shopping from offline to online commerce has caused consumers to have worries over issues, such as private information leakage, online fraud, discrepancy in product quality and grade, unsuccessful delivery, and so forth. Unfortunately, there has been a steady increase in the number of incidents that cause consumers to have such worries; for example, the Internet Crime Complaint Center reports that it has received 303,809 Internet fraud complaints in 2010, up from 95,064 complaints in 2003 (Center, 2011a). Meanwhile, the number of privacy breaches reported in the U.S. has increased from 157 in 2005 to 662 in 2010 (Center, 2011b). Therefore, today's consumers feel unsafe about making purchases online. The concerns that consumers have over online buying are collectively termed as consumers' perceived risk.

Numerous studies have been conducted to examine the role of perceived risk as a chief barrier to online purchases and to understand the theoretical relationships among perceived risk, trust, and purchase intentions. However, most studies (for example, Cheung & Lee, 2001; Corbitt, Thanasankit, & Yi, 2003; Flavian, Guinaliu, & Gurrea, 2005; Gefen, 2002; Gefen, Karahanna, & Straub, 2003; Jarvenpaa, Tractinsky, & Vitale, 2000; Pavlou, 2003; Salam, Iyer, Palvia, & Singh, 2005) focus on empirically investigating the effects of trust on perceived risk with little attention devoted to the effects of perceived risk on trust. While the influence of trust on perceived risk is worth studying, the influence in the opposite direction is equally important, enabling insights into the potential of perceived risk as an inhibitor of trust. For example, a consumer who perceives huge risk concerning an online transaction is likely to foresee a great potential of loss and thus, places little trust in the merchant. According to Pavlou (2003), the primary source of the perceived risk is either the technological uncertainty of the Internet environment or the behavioral uncertainty of the transaction partner. Due to such types of uncertainty, the increase in worries over the perceived risk may negatively affect trust. For example, if a consumer who sends sensitive transaction data over the Internet is concerned that his or her private information may leak out due to a lack of security, trust may decrease (Olivero & Lunt, 2004). By the same token, if the consumer feels that the online merchant has the potential to profit by behaving in an opportunistic manner by taking advantage of the remote, impersonal nature of online commerce, then it is unlikely that the merchant will be trusted. That is, the more likely it is for a danger to occur, the lesser is the trust and the greater is the need to control the transaction (Olivero & Lunt, 2004). Thus, the related studies as a whole indicate that while some researchers noted the influence of the overall perceived risk on the trust level,

* Corresponding author. Tel.: +82 2 820 5549; fax: +82 2 813 8910.
E-mail address: ihong@cau.ac.kr (I.B. Hong).

0268-4012/$ – see front matter © 2013 Elsevier Ltd. All rights reserved.
http://dx.doi.org/10.1016/j.ijinfomgt.2013.08.007

not much attention has been given to the effects of different types of perceived risk. Meanwhile, the related literature suggests that consumer trust in an online merchant is a key predictor of purchase intention (Hong & Cho, 2011; Pavlou, 2003; Pavlou & Gefen, 2004; Verhagen, Meents, & Tan, 2006). Then, we are led to believe that the relationship between perceived risk and purchase intention can be indirect as well as direct; moreover, it can be mediated by consumer trust. However, little attention has been given to this research issue to date.

The present research is a step toward closing that gap in extant research. It aims at addressing the need to study the intriguing relationships between perceived risk and purchase intention in an e-commerce setting. To accomplish the research purpose, we established two research questions. First, does perceived risk act as an inhibitor of purchase intention? Second, does trust in an online merchant mediate the relationship between perceived risk and purchase intention? We classified perceived risk into six different types based on literature, and empirically analyzed both the direct and the mediation effects of each dimension of perceived risk upon purchase intention.

The contribution of our research has both theoretical and practical dimensions. Theoretically, it will contribute to the existing body of knowledge by providing new insights into the mediating role of consumer trust in an online merchant in the relationships between dimensions of perceived risk and purchase intention. Practically, the research will help e-businesses develop strategies to reduce the specific types of perceived risk found to negatively influence trust, thereby engendering consumer trust in an online merchant and ultimately increasing online sales.

2. Literature review

2.1. Perceived risk

Bauer (1960) proposed that consumer behavior could be viewed as an instance of risk taking. He maintained that consumer behavior involves risk in the sense that any action of a consumer will produce consequences that one cannot anticipate and of which at least some are likely to be unpleasant. An individual perceives a situation as bearing risk if entering this situation might lead to negative consequences, and also if the individual is not able to control the occurrence of these consequences (Koller, 1988). Thus, the more negative are the consequences and the less the individual can control the consequences, the higher is the level of the perceived risk. Bauer (1960) emphasized that it is not a "real world" (or objective) risk but a perceived (or subjective) risk that influences consumer behavior. In the context of electronic commerce, Cox and Rich (1964) defined "perceived risk" as the nature and amount of risk perceived by a consumer in contemplating a particular purchase decision. A consumer perceives risk because prior to making a purchase, she cannot always be certain that the planned purchase will allow her to achieve her goals of purchasing. The uncertainty perceived by the consumer with regard to the choice of a product, brand, retailer, or channel determines the nature of the risk. Meanwhile, the amount of risk perceived by the consumer is a function of two general factors: the amount at stake in the purchase decision, and the individual's feeling of a subjective certainty that she will "win" or "lose" all or some of the amount at stake (Cox & Rich, 1964).

The risks perceived by consumers in traditional commerce are classified from various perspectives in the literature. While they each exhibit unique classification schemes, these studies (for example, Jacoby and Kaplan, 1972; Kurtz & Clow, 1997; Peter & Ryan, 1976; Schiffman & Kanuk, 1994; Stone & Gronhaug, 1993; Taylor, 1974; Zikmund & Scott, 1977) have focused on four essential types of risk including financial, performance, psychological, and social risks. Meanwhile, risks faced by online consumers are those engendered by the Internet as a sales channel, in addition to the traditional consumer risks. The use of the Internet, as a mode of purchase, creates risks for online transactions with the merchant since transactions are remote, involving no face-to-face contact between the merchant and the consumer (Cases, 2002). For example, Internet-based shopping requires a delivery process, unless an order is placed for a digital product that can be delivered online via the Internet; therefore, there is a risk for inconsistency between the ordered product and the delivered product (Ward & Lee, 2000). In addition, consumers may perceive a payment risk because they are likely to pay by a credit card, and thus, important personal information needs to be transmitted when the payment transaction is executed. Although security measures, such as encryption and authentication, are in place, consumers feel insecure about the possibility of personal information leakage that may result from hacking during the course of an online transaction. Jarvenpaa and Todd (1997) pointed out personal and privacy risks as well as economic, social, and performance risks in Internet-based transactions. Personal (or payment) risk refers to the fear of giving one's credit-card number online, and privacy risk is associated with the buyer's fear that personal information will be collected without authorization. Based on the above theoretical evidence, it is inferred that Internet transactions can introduce delivery and payment risks in addition to the common risks inherent in traditional commerce. Additionally, we propose an integrative model of risk dimensions: performance, psychological, social, financial, online payment, and delivery risks.

2.2. Trust

Trust has been widely studied over the years, as it is recognized as a key element in relationships between individuals, between organizations, and between an individual and an organization. Nevertheless, trust is perhaps one of the most highly challenging notions in which concepts are hardly agreed upon by researchers (Hong & Cho, 2011). As Lee and Turban (2001) noted, trust has been examined in various contexts including buyer–seller relationships, strategic alliances, and labor–management negotiations. In general, trust is defined as the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party (Mayer, Davis, & Schoorman, 1995). Morgan and Hunt (1994) defined trust as the belief that the trustee will behave in a favorable manner. Further, they state that trust is critical in successful alliances between firms. As such, trust refers to believing that the trustee will not do harm to the trustor and that negative consequences will not occur.

In the context of electronic commerce, trust becomes an even more important issue since exchange relationships are based on the impersonal nature of the Internet infrastructure. In particular, consumers face the challenge of buying a product or service online from an unfamiliar merchant; moreover, they cannot actually see or touch the product. Trust plays a central role in helping consumers overcome the perceptions of risk and insecurity (McKnight, Choudhury, & Kacmar, 2002). Since privacy and security concerns are major barriers to the Internet channel, without trust, customers will not give vendors their personal information, including credit card information (Hoffman, Novak, & Peralta, 1999). Therefore, online trust is formed slowly over time as a consumer gains experience through repeated transactions (Cheskin-Research, 1999). For the purpose of the present research, trust is defined as the consumer's belief that the online merchant will not behave in an