

---

# 정보보안우려감이 e-신뢰도와 e-충성도에 미치는 영향: 전환비용의 조절효과를 중심으로

문윤지 · 최훈

## The Effect of Information Privacy Concerns on E-Trust and E-Loyalty : The Moderating Role of Switching Cost

Yun Ji Moon\* · Hun Choi<sup>b</sup>

\* Catholic University of Pusan

<sup>b</sup> Catholic University of Pusan

E-mail : yjmoon@cup.ac.krtime.ac.kr

### 요 약

인터넷의 등장으로 기업은 보다 효율적으로 고객 서비스를 제공할 수 있게 되었다. 이에 본 연구는 B2C 영역에서 인터넷정보우려감과 e-신뢰도, 그리고 e-충성도 간 상호관계를 탐색하고자 한다. 특히 인터넷정보우려감에 관한 기존연구의 구성요인들을 통합함으로써 보다 총체적인 연구모형을 제시하였다. 본 연구는 다음과 같은 세 가지 질문을 중심으로 연구를 진행하였다: 인터넷정보보안우려감의 세 가지 요인들은 e-신뢰도를 통해 e-충성도에 유의한 영향을 미치는가?, e-신뢰도는 e-충성도와 정보보안우려감 간 관계에서 매개요인 효과를 보이는가?, 마지막으로 전환비용은 e-신뢰도와 e-충성도 간 관계를 조절하는가? 연구모형 검증을 위해 호텔 웹사이트를 통해 숙박을 예약한 고객을 대상으로 설문을 진행하였다. 연구결과, 본 연구에서 가정한 가설과 e-신뢰도의 매개효과, 그리고 전환비용의 조절효과 모두 유의한 것으로 검증되었다. 개념적으로 본 연구는 인터넷정보보안우려감, e-신뢰도, e-충성도 간 관계에 대한 실증적 검증을 제공하였으며, 실무적 차원에서는 날로 그 시장이 커지고 있는 온라인 시장에서 충성도를 관리할 수 있는 주요요인에 대한 통찰력을 제시하고 있다고 할 수 있다.

### ABSTRACT

The Internet allows firms to serve customers more effectively than ever before. In the B2C context, we examine the interrelationships among information privacy concerns, e-trust, and e-loyalty. The authors extend prior research by incorporating constructs of information privacy concerns into a more holistic conceptual framework. This study answers three research questions: Will the three components of information privacy concerns have a significant effect on e-loyalty through e-trust?, Does e-trust mediate e-loyalty?, Finally, do switching costs have a moderation effect between e-trust and e-loyalty?, The authors examine data from customers who have booked hotel accommodations online. The results support our hypotheses and confirm both the mediation role of e-trust and the moderation role of switching costs. Conceptually, this study provides an empirical validation of information privacy concerns, e-trust, and loyalty linkage. On the managerial level, this research provides insights into critical drivers of loyalty in the emerging online marketplace.

### 키워드

information privacy concerns, e-trust, e-loyalty, switching cost

## I. Introduction

Customer loyalty is becoming the primary capital in the service industry. There is no question that customer loyalty increases a firm's revenue, lowers customer acquisition costs, and gives a hospitality firm a competitive advantage (Rust et al., 2000). Moreover, customer loyalty is also becoming important in the online environment. More than ever before, Internet users now turn to the online channel for their transactions. Thus, while the Internet is becoming the most influential channel for travel purchases, hotels are starting to use it to differentiate themselves from their competitors, such as third-party online intermediaries (TPIs) (Connolly et al., 1998; Pernsteiner and Rauseo, 2000).

Although the hotel industry has made progress by using websites to communicate with customers worldwide, some consumers still prefer booking hotel accommodations through third-party online travel websites such as (i.e., Expedia, Hotwire, or Travelocity) rather than to use brand hotel sites (i.e., Marriott.com, Starwood.com, Hilton.com, etc.). However, the opportunity to conduct business directly with consumers allows hotels to reduce their costs with distribution and TPIs. Hotels expect, therefore, to generate more revenue from bookings on their proprietary websites. In addition, through their own websites hotels can control pricing, brand identity, customer relationships, and profitability. Consumers who have purchased travel products through TPIs have incurred unexpected fees and hidden conditions regarding cancellations or changes. Thus, the trend of online travelers may shift from the indirect online to the direct online channel.

In order to draw customers to their own websites and achieve further growth, hotels need to improve their technology to reduce

consumers' information privacy concerns (IPC). The need for collecting consumer information has been increased due to rising competitions in recent business environment. Sophisticated and inexpensive software, business intelligent software, and personalized web services help collecting and mining considerable amounts of personal information. The increase in digitalized personal information and advances in Internet technologies poses new challenges to consumers' information privacy.

In this atmosphere, the research conducted here focuses on the relationship among information privacy concerns, e-trust, and e-loyalty in online hotel booking sites. In addition, this paper explores the moderating effect of switching cost between e-trust and e-loyalty.

In summary, the current paper answers three questions based on this objective:

- 1) Do information privacy concerns negatively affect e-trust?
- 2) Do information privacy concerns positively affect switching costs?
- 3) Does e-trust positively affect e-loyalty?
- 4) Do switching costs have a moderation effect between e-trust and e-loyalty?

## II. Research Model and Hypotheses

Figure 1 is our conceptual model. We posit that e-trust in a hotel website is weakened by information privacy concerns. In addition, the relationship between information privacy concerns and e-trust toward loyalty is moderated by switching costs. Thus, we review the key constructs of our framework and describe the theoretical grounds supporting the relationships contained therein.

### 2.1. Information Privacy Concerns (IPC)

Information privacy concerns is defined as the user's belief about the website provider's

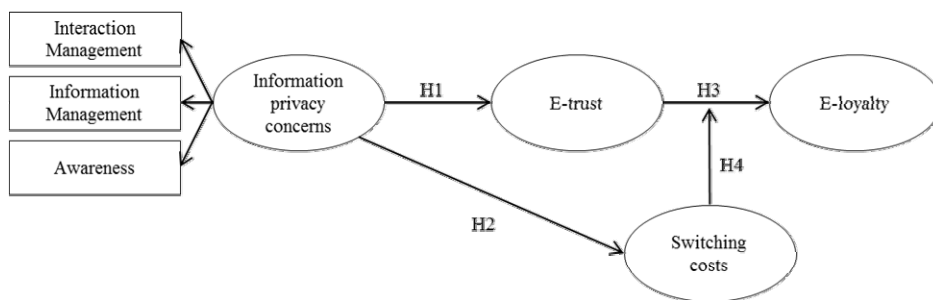


Figure 1. Research Model

inability and unwillingness to safeguard user's personal information from security breaches during purchasing in B2C (Angst & Agarwal, 2009). According to Hong & Thong (2013), we classify IPC into interaction management, information management, and awareness. As IPC is created in the interaction with others like online providers and websites, the construct of IPC needs to reflect the aspect of interaction with others. Additionally, users perceive IPC in experiencing transactions in websites (Laufer & Wolfe, 1977). For example, IPC caused by technical errors of websites is related to an information management aspect, not an interaction aspect of IPC. Last, awareness is about online providers' usual information security practices.

## 2.2 e-trust

The online transaction is the use of Internet technology as a platform to transact with providers (Ab Hamid, 2005). The primary purpose of online transaction is to streamline transaction processing that facilitates the efficient use of the website (Elliott and Speck, 2005). Therefore, many researchers consider protecting web security (Bart et al., 2005) as a critical transaction factor for reducing users' IPC. The online fraud rate is three to four times higher than in traditional transactions, and around 80% of new online users are somewhat concerned about using their credit cards online (Miles, 2002). Thus, many previous studies have found that a transaction factor related to reducing IPC should increase reliability of providers, and consequently improve e-trust and e-loyalty (Devaraj et al., 2006; Bansal et al., 2004; Zeithaml et al., 2002; Szymanski and Hise, 2000).

## 2.3 Switching cost

Switching costs refer to the costs customers incur when they change from one supplier to another (Heide and Weiss, 1995), including the costs of terminating a current relationship and securing an alternative (Ping, 1993).

Switching costs have both monetary and non-monetary aspects. While financial costs are sunk costs which appear when a customer changes his/her brand (Dick and Basu, 1994), psychological costs are perceived costs stemming from social bonds that form in the course of time and the uncertainty and risk

associated with switching to an unfamiliar brand (Sharma and Patterson, 2000). In addition, artificial switching costs are important to hotels because customers are concerned with the frequent-guest rewards associated with purchasing room accommodations. Therefore, for the purposes of this study, the most appropriate concept directly applicable and measurable to the hotel industry is that of artificial switching costs.

Researchers have speculated that switching costs, such as transaction-specific investments which customers have made in their relationships, may be an important factor in motivating customers to maintain their relationships with a service provider (Heide and Weiss, 1995). For these reasons, we can expect that switching costs, which reflect customers' sensitivity to price, are influenced by IPC and influence on extension to customer loyalty.

H1. Information privacy concerns will negatively affect e-trust.

H2. Information privacy concerns will positively affect e-trust.

H3. E-trust will positively affect e-loyalty.

H4. Switching costs will have a moderating effect between e-trust and e-loyalty.

## III. Methods

The hotel industry was selected to test the hypotheses, since hotels, a typical B2C business model, have characteristics such as customization, active communicational interaction, and efficient transaction. Further, focusing on one industry allowed us to customize the items on our questionnaire to suit the particular characteristics of that industry. A single industry survey also improves the internal validity, and it reduces the error variance. Developing an instrument with multiple-item scales for the constructs of interest, a total of 457 complete surveys were returned by a market research firm. Respondents who had purchased online travel services participated voluntarily through an embedded URL link, which they received in an e-mail, to the website hosting the survey. Of these 457 returns, 318 were usable and represented a response rate of 69.58%.

#### IV. Conclusions

We test the hypotheses using structural equation modeling on data obtained from users of hotel websites in a B2C context. This study contributes to the literature on two levels. At the conceptual level, the study provides an empirical validation of the relationship among IPC, e-trust, e-loyalty, and switching costs. While the linkage between customer trust and loyalty has been widely considered in previous studies, it remains to be established in a B2C setting where website factors and switching costs may raise doubts about the validity of the trust and loyalty linkage. Furthermore, this paper incorporate IPC into the traditional linkage among e-trust, switching costs, and e-loyalty in B2C area. At the managerial level, this research offers insights into the critical drivers of e-trust and subsequent e-loyalty in the online lodging environment. Understanding how the indirect (i.e., IPC) and direct (i.e., e-trust and switching costs) drivers affect e-loyalty is particularly useful for managers when allocating resources to increase profit. In particular, identifying the factors of IPC from a customer's perspective enables online providers to develop a competitive e-commerce strategy and, further, to improve their overall operations.

#### 참고문헌

- [1] Ab Hamid, N. R., 2005. E-CRM: Are we there yet? *Journal of American Academy of Business* 6 (1), 51-57.
- [2] Angst, C.M. and Agarwal, R. Adoption of electronic health records in the presence of privacy concern: The elaboration likelihood model and individual persuasion, *MIS Quarterly*, Vol. 33, No. 2, 2009, pp. 339-370.
- [3] Bansal, H. S., McDougall, G. H. G., Dikolli, S. S., Sedatole, K. L., 2004. Relating E-satisfaction to behavioral outcomes: an empirical study. *The Journal of Services Marketing* 18 (4/5), 290-302.
- [4] Bart, Y., Shankar, V., Sultan, F., Urban, G. L., 2005. Are the drivers and role of online trust the same for all web sites and consumers? A large-scale exploratory empirical study. *Journal of Marketing* 69 (4), 133-152.
- [5] Connolly, D. J., Olsen, M.D., Moore, R. G., 1998. The internet as a distribution channel. *Cornell Hotel and Restaurant Administration Quarterly* 39 (4), 42-54.
- [6] Devaraj, S., Fan, M., Kohli, R., 2006. Examination of online channel preference: using the structure-conduct-outcome framework. *Decision Support Systems* 42 (2), 1089-1103.
- [7] Dick, A. S., Basu, K., 1994. Customer loyalty: toward an integrated framework. *Journal of the Academy of Marketing Science* 22(2),99-113.
- [8] Elliott, M. T., Speck, P. S., 2005. Factors that affect attitude toward a retail website. *Journal of Marketing Theory and Practice* 13 (1), 40-51.
- [9] Heide, J. B., Weiss, A. M., 1995. Vendor consideration and switching behavior for buyers in high-technology markets. *Journal of Marketing* 59 (3), 30-43.
- [10] Hong, W., Thong, J. Y. L., 2013. Internet Privacy Concerns: An Integrated Conceptualization and Four Empirical Studies, *MIS Quarterly* 37(1), 275-298.
- [11] Laufer, R.S. and Wolfe, M., Privacy as a Concept and a Social Issue: A multidimensional development theory, *Journal of Social Issues*, Vol. 33, No. 3, 1977. pp. 22-42.
- [12] Miles, S., 2002. Visa ads push web security to spur card use loyalty. *The Wall Street Journal Europe*, 5April, 2002.
- [13] Pernsteiner, C., Rauseo, N., 2000. Transforming the hospitality industry into e-business. *FIU Hospitality Review* 18 (2), 10-21.
- [14] Ping, R. A., 1993. The effects of satisfaction and structural constraints on retailer exiting, voice, loyalty, opportunism, and neglect. *Journal of Retailing* 69 (3), 320-353.
- [15] Sharma, N., Patterson, P. G., 2000. Switching costs, alternative attractiveness and experience as moderators of relationship commitment in professional, consumer services. *International Journal of Service Industry Management* 11 (5), 470-490.
- [16] Szymanski, D. M., Hise, R. T., 2000. E-satisfaction: an initial examination. *Journal of Retailing* 76 (3), 309-322.
- [17] Parasuraman, A., Malhotra, A., 2002. Service quality delivery through web sites: a critical review of extant knowledge. *Journal of the Academy of Marketing Science* 30(4),362-376