웹사이트의 고객 신뢰 행동이 전자상거래 웹사이트의 지속적 사용에 미치는 영향 연구

Effects of E-Commerce Website's Trusting Actions on Customer's Continuous Intention

권오병(Ohbyung Kwon)[*], 이남연(Namyeon Lee)[**]

초 록

신뢰는 전자상거래 사이트의 지속적 사용에 있어서 중요한 요소로 인정되어오고 있다. 신뢰란 상호작용적임에도 불구하고 대부분의 연구는 고객의 전자상거래 사이트에 대한 신뢰에만 초점을 두어오고 있었다. 신뢰의 상호작용성 관점에서 볼 때, 고객이 특정 전자상거래 사이트가 자신에 대해 얼마나 신뢰하고 있다고 지각하는지도 지속적 사용에 영향을 줄 것으로 보이나 이를 실증 분석한 연구는 그 중요성에도 불구하고 거의 드물다. 따라서 본 연구는 고객이 사이트에 대해 얼마나 자신을 신뢰하고 있느냐 하는 지각이 그 사이트의 지속적 사용에 영향을 미치는지를 규명하고자 한다. 특히 전자상거래 사이트들이 고객으로부터 신뢰를 얻기 위해 취하는 행동이 신뢰에 어떠한 영향을 주는지에 대해서도 조사하였다. 본 연구는 전자상거래 사이트의 신뢰 구축 행동이 신뢰 및 신뢰를 받고 있다는 자각에 각각 중요한 요인임을 보였다.

ABSTRACT

Trust has been identified as crucial to intention to continue to use e-commerce systems. Although trust is inherent in relationship-based practices, most studies on trust have focused on influences on customer trust. From the viewpoint of mutual trust, few empirical studies have examined the effect of users' perceived trust from an e-commerce website on customer trust in that website, despite the obvious importance of this issue, particularly in the field of e-commerce. This paper empirically examines the role of customer perception of trust in the customer on the part of e-commerce websites. In addition, this study explores the ability of e-commerce websites' trusting actions to transfer positive impressions that encourage trust in those sites. The results indicate that in the e-commerce context, a website's trusting actions are important to customer perception of being trusted by and trusting in e-commerce websites.

1. Introduction

Trust is a valuable factor in successful business relationships [21, 34] and very important to e-commerce success, mainly because it reduces uncertainty, perceived risk, and transaction costs [30, 45]. The resulting efficiency enhances customer satisfaction and intention to purchase or revisit a specific e-commerce website [14].

The enormously valuable outcomes of trust have led to an abundance of research about what affects trust. Researchers have agreed that trust is determined by the cognitive characteristics of the truster, such as reliability, perceived trustworthiness of the trustee [25, 40], reputation [17], and familiarity through e-commerce experience [18]. These are the antecedents of trust. Most of these studies have regarded trust as unilateral : how the truster trusts the trustee, rather than how the truster perceives trust from the trustee.

Trust is a reciprocal construct. For example, in channel marketing research, manufacturers have trust building actions when they send messages of intention to work with channel members in the long run by supporting their efforts [26]. When they receive these signals, channel members' trusting action is to respond with "signals" of intention to work with the manufacturer in good faith. Thus, perception of trusting actions is integral to the process of building trust.

Few empirical studies exist of the perception of trust and how it affects trust in the e-commerce context [10]. Most trust studies have overlooked the reciprocal nature of trust, although trust constitutes crucial social capital which makes communities more efficient and sustainable. While previous research has examined both the antecedents and consequences of trust, fewer studies have explored whether one party's trusting actions have a role in establishing another party's trust. Perceptions of the source of trust also require attention, especially in the e-commerce community [42]. Overall, studies on mutual trust are lacking, despite its obvious importance, particularly in e-commerce [23, 46].

This paper empirically examines the antecedents and role of customer perception of trust in the customer on the continuance intention of e-commerce websites. In particular, sources of perceived trust in terms of both e-commerce website's trusting actions and customer characteristics are examined. Two types of trusting actions from e-commerce websites are identified : delegation and monitoring. Customers' propensity to trust e-commerce websites, that is, their dispositional willingness to rely on e-commerce websites in general, not on specific e-commerce websites [9], is the

characteristic in focus here. We empirically investigate how this propensity is related to their perception that they are trusted by and trust e-commerce websites.

2. Theoretical Background : Reciprocal Nature of Trust

Trust is dyadic and even reciprocal in nature [42]. Trust reciprocity means that the growth or degradation of trust is fundamentally a dynamic process between parties engaged in interactions [44]. Social exchange theory [19] and the norm of reciprocity [7] offer relevant conceptual information on the reciprocal nature of trust. As Gefen [18] noted, trust is one party's confidence in or favorable expectations of another party's actions based on previous interactions. Mooreman et al. [33] also asserted that trust is a willingness to rely on an exchange partner in whom one has confidence.

Some user experiences during interaction with a website may be perceived as trusting actions by the makers of that website, either intentionally or unintentionally. For example, collecting user profile information for the purposes of subscription or registration is useful for the website to manage customer relationships securely. However, some users may perceive these actions as invasive, thinking that too much personal data is being collected (e.g., the SSN, cell phone number, or home address). Therefore, they may draw the conclusion that the makers of the website do not trust them. Thus, trust formation requires a perception on the part of users of an e-commerce website that its actions are trustworthy.

In a dyadic relationship, one party's expectation of another party's future behavior can be predicted by the history of their encounters [35]. Trust may also be understood as inherently reciprocal simply because trust formation occurs in a dyadic context. When a truster trusts someone, hoping to gain trust in return, the trustee returns that trust in order to show appreciation [36].

E-commerce research has examined trust reciprocity in terms of website visitors' trust-based behavior. The view of seller as trustee and buyer as truster is the typical view of the buyer-seller relationship and its transaction history [2, 17]. However, trust is not one-way, despite the focus of many e-commerce researchers; both buyer and seller can trust and be trusted. Correspondingly, how much the visitor feels that she or he is trusted by the e-commerce website potentially affects his or her trust in and willingness to revisit the e-commerce website. We believe that this view of reciprocal trust will be useful in explaining why customers revisit e-commerce websites.

3. Research Model

<Figure 1> illustrates the research model of our empirical study. This model includes two essential factors not previously included in empirical models of trust : e-commerce website's trusting actions and customer perception of being trusted by the makers of an e-commerce website. The addition of these factors increases understanding of customers' trusting attitudes and subsequent behaviors. The positive relationship between trust and continuance intention has been widely explored in previous relationship-based research, such as that of Vatanasombut et al. [43]. Therefore this positive relationship will be assumed in the research presented here.

3.1 Customer Perception of Being Trusted

Like trusting, feeling trusted is a perceptual construct; both constructs form part of the customer mindset [42]. Customer perception of being trusted is related to felt trust. Felt trust is defined as the degree to which an individual believes that another party trusts him/her [10]. Many studies have shown that felt trust influences individuals' trust in government, organizations, and employers [10, 12, 15, 28]. These researchers asserted that felt trust indirectly affects intention to use a system. In this study, we first extend this line of research by examining the influence of felt trust on continuance intention in the e-commerce context.
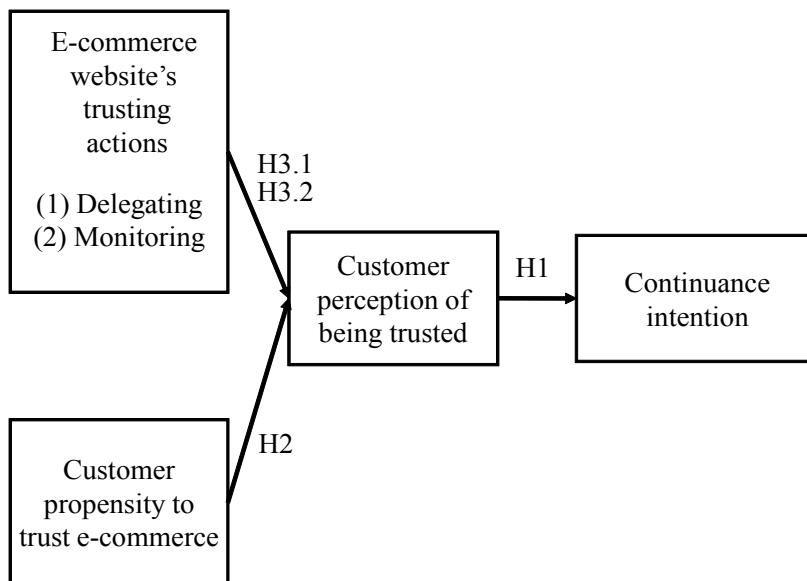
〈Figure 1〉 Research Model

H1 : Customer perception of being trusted by an e-commerce website will be positively associated with customer intention to revisit the e-commerce website.

3.2 Propensity to Trust in E-Commerce

As defined earlier, trust propensity is a dispositional willingness to rely on others. In the e-commerce context, customer propensity to trust in e-commerce refers to a dispositional willingness to rely on e-commerce in general, not on a specific e-commerce website. Trust research has shown special interest in trust propensity and its connection to the origins of trust. Bergman et al. [6] observed an asymmetry in perceptions of trust among members of temporary teams in an organization; trusters with a higher propensity to trust tend to perceive others as more trustful than those with a lower propensity.

Koufaris and Hampton-Sosa [25] examined only direct causality between customer trust propensity and trust. Customer's propensity to trust a website may also be indirectly associated with trust through customer perception that she or he is trusted by the e-commerce website. People who have more trust propensity toward an e-commerce website will be more likely to perceive that the website is trustworthy and hence they are fairly treated by the makers of the website. Hence, we hypothesize as follows :

H2 : Customer propensity to trust in e-commerce will be positively associated with customer perception of being trusted by the makers of an e-commerce website.

3.3 Trust as Demonstrated by Makers of E-Commerce Websites

Both customers and makers of websites exhibit trust by accepting and coping with risk and vulnerability within a transactional relationship. In this study, the concept of risk-taking in relationship of Mayer et al. [30] was adopted in measuring the trusting actions of makers of e-commerce websites. This measure is also considered an antecedent of trustworthiness. Based on studies of risk management behavior, we explored two types of trusting actions : delegation and monitoring.

Delegation explicitly shows that the company already trusts the customer. Making special offers, showing respect for the customer, exempting the customer from authorization, and customizing for better service are representative examples of delegation (<Table 1> see). A price premium, which is defined as the monetary amount above the average price received by multiple sellers for a certain matching product, is a

⟨Table 1⟩ Actions by Makers of E-Commerce Websites that Demonstrate Trust in Customers

Type	Action	Examples	References/Sources
Delegation	Special offers	Providing price premiums	Ba and Pavlou, 2002
	Not underestimating	Allowing access to VIP-level benefits	Skyteam
	Exempting from authorization	Allowing access to information by clicking on a link in an e-mail message or license agreement without logging in	T World™ ORACLE Java download sites
	Willingness to customize	Supporting page construction	Koufaris and Hampton-Sosa, 2004
	Payment (reverse)	Rejecting credit card usage (cash only) "I feel like I am an untrusted customer who can't follow directions"	http://www.yelp.ca/biz/shaktea-vancouver
Monitoring	Registration	Collecting too much personal data (e.g. SSN, cell phone number, home address etc.) for registration	Hanabank
	Periodical confirmation	Degrading credit based on transaction volume	Outback
	Abnormal notifications	"I was disappointed with WGA Notifications experience, because I feel like an untrusted customer."	Microsoft

common type of special offer [3]. Airline websites for online ticket sales are easily customized to customers' individual needs. On such sites, customers can choose the dates, times, number of stopovers, and seat numbers to meet their travel needs [25]. An example of overrating is found in mileage-based offers. Skyteam has allowed VIPs to use the sky lounge, which was previously only accessible to travelers rated as platinum members. Due to this policy change, gold members perceived greater trust in them on the part of the company.

Monitoring facilitates customer support. Companies learn from their customers' usage behavior. To arrive at a sufficient level of trust reciprocity, companies may require credit-related data. For example, many online banking services require user identities and passwords before allowing withdrawals or money transfer. This requirement is partly motivated by the assumption that some users may potentially be unaware how to utilize an e-commerce website effectively. Many mini-homepages, blogs and social networking sites request personal data before allowing entrance to their pages.

Delegation demonstrates more explicitly and clearly that the makers of an e-com-

merce website trust the customer than do passive actions such as monitoring. Therefore, we hypothesize as follows :

H3.1 : An e-commerce website's delegating actions will be positively associated with customer perception of being trusted by the makers of a website.

The relationship between an e-commerce website's trusting actions and its trust is evident in prior observations about the impact of company characteristics (e.g., order fulfillment) on company trust [5]. Customers may perceive an e-commerce website's trusting actions as one of these characteristics. Hence, we hypothesize :

H3.2 : An e-commerce website's monitoring actions will be positively associated with customer perception of being trusted by the makers of a website.

4. Methods

In order to test our model, we conducted a field study and collected data via an online questionnaire. The study was carried out online by a marketing research company that randomly selected and invited subjects.

4.1 Survey Measures

The survey measures were designed to gather data from eBay consumers. All survey items were drawn from previous literature and adapted to serve the purpose of this study. A seven-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (7) was used to measure responses, including continuance intention. To enhance content validity, question items that carried semantic ambiguities were identified and adequately corrected based on input from industry and academic reviewers. Then a pilot test was performed. During the pilot test, 155 responses were gathered and utilized to validate the reliability and validity of survey items. After the survey validation procedure, 18 survey measures were adopted as indicators of 6 different constructs.

4.2 Sampling and Data Collection Procedures

The survey instrument, validated through the pilot test, was distributed by an online marketing research company to a group of randomly chosen subjects from its own panel list. This list was maintained by the firm for market research purposes. It included representatives of the general population in terms of demographic factors such as gender, age, education, and occupation.

At the outset, the survey specifically asked about previous experience of online transactions through eBay, thus ensuring that only qualified participants would answer the subsequent survey questions.

Initially, 452 responses were returned, but those with unanswered items were excluded from further consideration, leaving 444 effective samples. A good gender balance was evident; male and female groups accounted for 47.5% and 52.5% of respondents, respectively. The respondents were well-educated; about 80% of them held a college degree or higher qualification. Most respondents were employed. In addition, respondents were evenly distributed in terms of age category. The possibility of non-response bias was examined by comparing the first and last 20% of responses on all measurement items. None of the results were statistically significant, indicating that non-response bias was not present. <Table 2> summarizes the details of the respondents' profiles.

5. Results

Structural equation modeling (SEM) employing partial least squares (PLS) analysis was conducted using SmartPLS 2.0. SEM assesses measurement and structural models, simultaneously running factor analysis and hypothesis testing.

5.1 Measurement model

To test the measurement model, we assessed both convergent and discriminant validity. Cronbach's alpha was used to assess convergent validity. All values exceeded the recommended threshold values (0.70 for Cronbach's alpha, 0.70 for composite reliability), as shown in <Table 3>. Also, to ensure independence of variables (i.e., internal validity), factor analysis was performed. Varimax, which is indubitably the most popular rotation method [24], and principal component analysis were applied. The results are shown in Appendix A.

〈Table 2〉 Descriptive Statistics of Respondents' Characteristics (N = 444)

Item	Value	Frequency(%)
Gender	Male	211(47.5%)
	Female	233(52.5%)
Age	20~29	109(24.5%)
	30~39	114(25.7%)
	40~49	109(24.5%)
	≥ 50	112(25.3%)
Highest Level of Education	High School Diploma	85(14.4%)
	Undergraduate Degree	21(4.7%)
	Graduate Degree	315(71.2%)
	Graduate Degree or Higher	43(9.7%)
Occupation	Employed	373(84.0%)
	Student	24(5.4%)
	Housewife	39(8.8%)
	Unemployed	8(1.8%)

〈Table 3〉 Convergent Validity

Constructs	Cronbach's Alpha	Composite Reliability
Delegation(DEL)	0.796	0.880
Monitoring(MON)	0.877	0.923
Propensity(PROP)	0.882	0.926
Trusted(TRD)	0.848	0.908
Continuance Intention (INT)	1.000	1.000

〈Table 4〉 Results of Reliability Testing

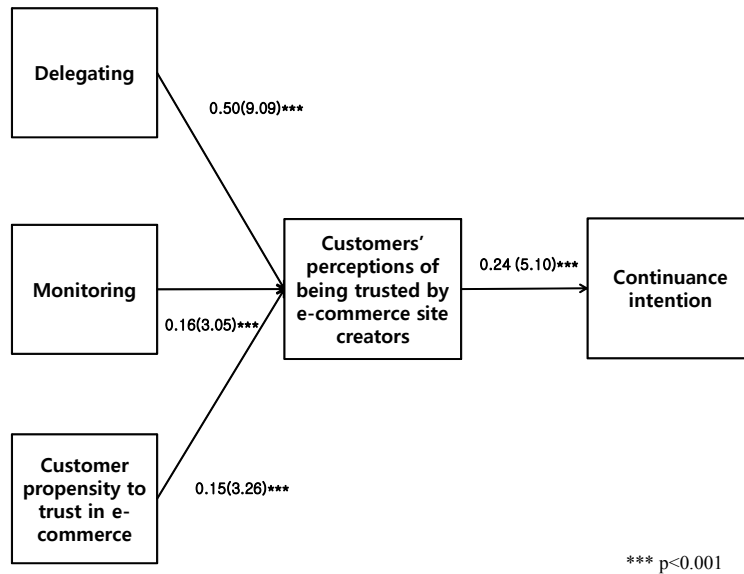| Constructs	DEL	MON	PROP	TRD	INT
Delegation (DEL)	**.843**				
Monitoring (MON)	.658**	**.896**			
Propensity (PROP)	.361**	.371**	**.899**		
Trusted (TRD)	.666**	.557**	.401**	**.876**	
Continuance Intention (INT)	.254**	.350**	.241**	.232**	1

Note : **p < 0.01.

Discriminant validity can be assessed when items of one particular construct have a low correlation with items of all other constructs, but high correlation with their own construct. It is assessed by examining the relationship between correlations among constructs and the square roots of AVE values. The square roots of the AVE values should be greater than the correlations among the constructs, indicating that more variance is shared between the construct and its indicators than with other constructs. <Table 4> shows that the square roots of all the AVE values (i.e., the numbers on the diagonal) are greater than the correlations among constructs (i.e., the off-diagonal numbers), indicating satisfactory discriminant validity of all constructs.

5.2 Results of the Analysis

Nomological validity was assessed through analysis of the standardized path coefficients and t-values produced by SmartPLS. Figure 2 summarizes the results of the estimation using the hypothesized structural model. The standardized path coefficients shown in <Figure 2> indicate the relative strength of the statistical relationships among the constructs [18]. We found significant causality between customers' perception that they were trusted by the makers of an e-commerce website and their intention to revisit that website (t = 5.10; H1 supported). This result supports one of the key arguments put forward in this paper.

The results also indicated a significant

〈Figure 2〉 Structured Model Path Coefficients

positive association between an e-commerce website's delegating and monitoring actions and customer perception of being trusted (β = 0.50, t = 9.09, p < 0.001 and β = 0.16, t = 3.05, p < 0.001, respectively; H3.1 and H3.2 supported). These results demonstrate the usefulness of delegating and monitoring actions as a construct and illustrate how the efforts of website creators to show trust in their customers (i.e., through delegation and monitoring) are associated with customers' perceptions of being trusted. Customer propensity to trust in e-commerce was also positively associated with customers' perceptions of being trusted by an e-commerce website (β = 0.15, t = 3.26, p < 0.001; H2 supported). Thus, customer propensity to trust in e-commerce reflects customer perception or

feelings of being trusted by the makers of the e-commerce website.

6. Discussion

6.1 Contributions

The primary contribution of our study was the investigation of customer perception of being trusted by makers of an e-commerce website, which is related to trust reciprocity and relational exchange in e-commerce. Hypotheses related to this construct were fully supported by the data resulting from our analysis. Delegating actions such as special offers, not underestimating customers, exempting from authorization, and willingness to customize to

nurture the feeling that a customer is trusted by the website all facilitate the trust process. Continuance intention is affected by this trust.

The relationship between customer propensity to trust in e-commerce and perception of being trust by makers of a specific e-commerce site deserves special attention. In the literature, there are varied reports on the relationship between customer propensity to trust others and felt trust. Some have suggested a positive relationship [46], while others see a more negative relationship [25]. This disagreement may come from the diversity of "others" available to trust. There is insufficient evidence to show that perceiving personal "others" (informal) and "others" as a system (formal) are identical. Hence, to decrease the scope of "others" for the purposes of our research, we operationalized the propensity to trust others as the propensity to trust in e-commerce. This operationalization is supported by the branding-association trust model, which suggests that disposition to trust *per se* is not associated with initial trust, but indirectly related via institution-based trust [29]. In McKnight [31]'s theory of trust, institution-based trust is defined as "the belief that the needed structural conditions are present (e.g., in the Internet) to enhance the probability of achieving a successful outcome in an endeavor like e-commerce" (p.

339). These theories imply that in the e-commerce context, felt trust relies on the propensity to trust only if that propensity has something specifically to do with e-commerce websites in general. As a result, customer propensity to trust websites was positively associated with trusted feeling. Based on the results, we conclude that customer trust in online transactions is a crucial antecedent to trust in e-commerce in general.

An e-commerce website maker's efforts to show trust in customers are indispensable to continuance intention. In order to create long-term relationships, it is important for website vendors to develop and nurture felt trust in the website. Thus, trust building is reciprocal in the e-commerce context. Most current e-commerce practices through the whole transaction process, from registration to procurement, implicitly request customer trust prior to showing signs of trust themselves. If more technology becomes available enabling customers to perceive that they are trusted and to recognize the vulnerability of e-commerce websites, then reciprocal trust will be enhanced and e-commerce will be more successful.

6.2 Limitations

As this study involved an experiment, the results are limited in generalizability to

real-life settings. The participants were requested to choose an e-commerce website from a list and visit it before completing the questionnaire. Although we carefully and explicitly advised participants to visit the website for a sufficient amount of time, the time period was not specified nor controlled. These factors may have diminished the strength of the results. Finally, another frequent generalizability limitation involves the use of students as participants. Although students are often on low incomes, this limitation was avoided in our study, as most participants were employed.

References

[1] Adams, J. S., "Inequity in Social Exchange," Advances in Experimental Social Psychology, Vol. 62, pp. 335-343, 1965.

[2] Anderson, E. and Weitz, B., "Determinants of Continuity in Conventional Industrial Channel Dyads," Marketing Science, Vol. 8, pp. 310-323, 1989.

[3] Ba, S. and Pavlou, P. A., "Evidence of the Effect of Trust Building Technology in Electronic Markets : Price Premiums and Buyer Behavior," MIS Quarterly, Vol. 26, pp. 243-268, 2002.

[4] Ben-Ner, A. and Halldorsson, F., "Trusting and Trustworthiness : What Are They, How to Measure Them, and What Affects Them," Journal of Economic Psychology, Vol. 31, pp. 64-79, 2010.

[5] Benedicktus, R. L., Brady, M. K., Darke, P. R. and Voorhees, C. M., "Conveying Trustworthiness to Online Consumers : Actions to Consensus, Physical Store Presence, Brand Familiarity, and Generalized Suspicion," Journal of Retailing, Vol. 86, pp. 322-335, 2010.

[6] Bergman, J. Z., Small, E. E., Bergman, S. M., and Rentsch, J. R., "Asymmetry in Perceptions of Trustworthiness : It's Not You; It's Me," Negotiation and Conflict Management Research, Vol. 3, pp. 379-399, 2010.

[7] Blau, P., Exchange and Power in Social Life, Wiley, New York, 1964.

[8] Cheung, C. M. K. and Lee, M. K. O., "Trust in Internet Shopping: Instrument Development and Validation Through Classical and Modern Approaches," Journal of Global Information Management, Vol. 9, pp. 23-35, 2001.

[9] Colquitt, J. A., Scott, B. A. and Lepine, J. A., "Trust, Trustworthiness, and Trust Propensity : A Meta-Analytic Test of Their Unique Relationships With Risk Taking and Job Performance," Journal of Applied Psychology, Vol. 92, pp. 909-927, 2009.

[10] Dashti, A., Benbasat, I. and Burton-Jones, A., "Developing Trust Reciprocity in Electronic Government : The

Role of Felt Trust," Proceedings of the European and Mediterranean Conference on Information Systems, Izmir, pp. 1-13, 2009.

[11] Davis, R., Buchanan-Oliver, M. and Brodie, R., "Relationship marketing in electronic commerce environments," Journal of Information Technology, Vol. 14, pp. 319-331, 1999.

[12] Deutsch-Salamon, S. and Robinson, S., "Trust That Binds : The Impact of Collective Felt Trust on Organizational Performance," Journal of Applied Psychology, Vol. 93, pp. 593-601, 2008.

[13] Doney, P. M. and Cannon, J. P., "An examination of the Nature of Trust in Buyer-Seller Relationships," Journal of Marketing, Vol. 61, pp. 35-51, 1997.

[14] Driscoll, J. W., "Trust and Participation in Organizational Decision Making as Predictors of Satisfaction," Academy of Management Journal, Vol. 21, pp. 44-56, 1978.

[15] Fox, A., Beyond Contract : Work, Power, and Trust Relations. London : Faber and Faber, 1974.

[16] Friedman, H. H., Santeramo, M. J., and Traina, A., "Correlates of Trustworthiness for Celebrities," Journal of Academy of Marketing Science, Vol. 6, pp. 291-299, 1979.

[17] Ganesan, S., "Determinants of Long-Term Orientation in Buyer-Seller Relationships," Journal of Marketing, Vol. 58, pp. 1-19, 1994.

[18] Gefen, D., "E-commerce : The Role of Familiarity and Trust," Omega, Vol. 28, pp. 725-737, 2000.

[19] Gouldner, A., "The Norm of Reciprocity : A Preliminary Statement," American Sociological Review, Vol. 25, pp. 161-178, 1960.

[20] Grazioli, S. and Jarvenpaa, S. L., "Perils of Internet Fraud : An Empirical Investigation of Deception and Trust with Experienced Internet," IEEE Transactions on Systems, Man, and Cybernetics Part A : Systems and Humans, Vol. 30, pp. 395-410, 2000.

[21] Hwang, W. I., "Design Factors Influencing the Perceived Trustworthiness in E-Commerce Websites," Journal of the Society for e-Business Studies, Vol. 13, No. 3, pp. 137-152, 2008.

[22] Jarvenpaa, S. L., Tractinsky, N., and Vitale, M., "Consumer Trust in an Internet Store," Information Technology and Management, Vol. 1, pp. 45-71, 2000.

[23] Jiang, X. and Shi, K., "How Subordinates Reciprocate Supervisor's Trust : A Cross-Level Model," Proceedings of the 2nd Symposium on Web Society, Beijing, pp. 608-614, 2010.

[24] Kaiser, H. F., "The Varimax Criterion for Analytic Rotation in Factor Analysis," Psychometrika, Vol. 23, pp. 187-200, 1958.
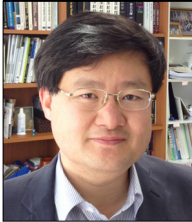
[25] Koufaris, M. and Hampton-Sosa, W., "The Development of Initial Trust in an Online Company by New Customers," Information and Management, Vol. 41, pp. 377-397, 2004.

[26] Kronman, A. T., "Contract Law and the State of Nature," Journal of Law, Economics, and Organization, Vol. 1, pp. 5-32, 1985.

[27] Lee, M. K. O. and Turban, E., "A Trust Model for Internet Shopping," International Journal of Electronic Commerce, Vol. 6, pp. 75-91, 2001.

[28] Lester, S. and Brower, H., "In The Eyes of The Beholder : The Relationship Between Subordinates' Felt Trustworthiness and Their Work Attitudes and Behaviours," Journal of Leadership and Organizational Studies, Vol. 10, pp. 17-33, 2003.

[29] Lowry, P. B., Vance, A., Moody, G., Beckman, B., and Read, A., "Explaining and Predicting The Impact of Branding Alliances and Web Site Quality on Initial Consumer Trust of E-Commerce Web Sites," Journal of Management Information Systems, Vol. 24, pp. 199-224, 2008.

[30] Mayer, R. C., Davis, J. H. and Schoorman, F. D., "An Integration Model of Organizational Trust" Academy of Management Review, Vol. 20, pp. 709-734, 1995.

[31] McKnight, D. H., Choudhury, V., and Kacmar, C. J., "Developing and Validating Trust Measures for E-Commerce: An Integrative Typology," Information Systems Research, Vol. 13, pp. 334-359, 2002.

[32] Miller, G. P. and Basehart, J., "Source Trustworthiness, Opinionated Statements, and Response to Persuasive Communication," Speech Monographs, Vol. 36, pp. 1-7, 1969.

[33] Moorman, C., Zaltman, G. and Deshpande, R., "Relationships between providers and users of market research : The dynamics of trust within and between organizations," Journal of Marketing Research, Vol. 26, pp. 314-328, 1992.

[34] Morgan, R. M. and Hunt, S. D., "The Commitment-Trust Theory of Relationship Marketing," Journal of Marketing, Vol. 58, pp. 20-38, 1994.

[35] Mui, L., Mohtashemi, M. and Halberstadt, A., "A Computational Model of Trust and Reputation," Proceedings of the 35th International Conference on System Science, pp. 280-287, 2004.

[36] Nguyen, V. A., Lim, E. P., Tan, H. H., Jiang, J. and Sun, A., "Do You Trust to Get Trust? A Study of Trust Reciprocity Behaviors and Reciprocal Trust Prediction," The 10th SIAM International Conference on Data Mining (SDM), Columbus, pp. 72-83, 2010.

[37] Ohanian, R., "Construction and Validation of a Scale to Measure Celebrity

Endorsers' Perceived Expertise, trust-worthiness, and attractiveness," Journal of Advertising, Vol. 19, pp. 39-52, 1990.

[38] Palvia, P., "The Role of Trust in E-Commerce Relational Exchange : A Unified Model," Information and Management, Vol. 46, pp. 213-220, 2009.

[39] Riegelsberger, J., Sasse, M. A., and McCarthy, J. D., "The Mechanics of Trust : A Framework for Research and Design," International Journal of Human-Computer Studies, Vol. 62, pp. 381-422, 2005.

[40] Riegelsberger, J., Sasse, M. A., and McCarthy, J. D., "The Researcher's Dilemma : Evaluating Trust in Computer-Mediated Communication," International Journal of Human-Computer Studies, Vol. 58, pp. 759-781, 2003.

[41] Schurr, P. H. and Ozanne, J. L., "Influences on Eexchange Processes : Buyers' Preconceptions of a Seller's Trustworthiness and Bargaining Toughness," Journal of Consumer Research, Vol. 11, pp. 939-953, 1985.

[42] Serva, M. A., Fuller, M. A., and Mayer, R. C., "The Reciprocal Nature of Trust : A Longitudinal Study of Interacting Teams," Journal of Organizational Behavior, Vol. 26, pp. 625-648, 2005.

[43] Vatanasombut, B., Igbaria, M., Stylianou, A. C. and Rodgers, W., "Information Systems Continuance Intention of Web-Based Applications Customers : The Case of Online Banking," Information and Management, Vol. 45, pp. 419-428, 2008.

[44] Webster, N., Webster's II New Riverside Dictionary, New York : Houghton Mifflin, 1984.

[45] Wicks, A. C., Berman, S. L. and Jones, T. M., "The Structure of Optimal Trust : Moral and Strategic Implications," Academy of Management Review, Vol. 24, pp. 99-116, 1999.

[46] Yakovleva, M., Reilly, R. R. and Werko, R., "Why Do We Trust? Moving Beyond Individual to Dyadic Perceptions," Journal of Applied Psychology, Vol. 95, pp. 79-91, 2010.

[47] Yu, J., Ha, I., Choi, M., and Rho, J., "Extending the TAM for a T-Commerce," Information and Management, Vol. 42, pp. 965-976, 2005.

〈Appendix A〉 Items and Factor Loadings

	Factors				
	1	2	3	4	5
MON2	.847				
MON1	.831				
MON3	.770				
PROP1		.892			
PROP2		.880			
PROP3		.835			
TRD2			.869		
TRD3			.813		
TRD1			.684		
DEL3				.823	
DEL2				.721	
DEL1				.581	
INT					.958

저 자 소 개

권오병   (E-mail : obkwon@khu.ac.kr)
1988년   서울대학교 경영학과 (학사)
1990년   한국과학기술원 경영과학과 (석사)
1995년   한국과학기술원 경영과학과 (박사)
1995년   연변과학기술대학 경영정보학과 조교수
1996년~2003년   한동대학교 경영경제학부 부교수
2002년~2003년   카네기멜론대학 전산학부 방문과학자
2004년~현재   경희대학교 경영대학 교수
2009년~2011년   샌디에고주립대학 MIS학과 겸임교수
관심분야   유비쿼터스 컴퓨팅, 빅데이터분석, IT융합 경영

이남연   (E-mail : ciel@khu.ac.kr)
2006년   경희대학교 국제경영학부 (학사)
2008년   경희대학교 일반대학원 기술경영학과 (석사)
2013년   경희대학교 일반대학원 국제경영학과 (박사)
2013년~현재   경희대학교 경영대학 차세대정보기술연구센터 연구박사
관심분야   빅데이터분석, 상황인식 서비스, HCI, 디지털에코시스템
                지속가능성 연구