Trust Building in Internet Vendors: Comparison of New and Repeat Customers

Hee-Woong Kim

Department of Information Systems, National University of Singapore, 2 Science Drive 2, Singapore 117543
kimhw@comp.nus.edu.sg

Joon Koh

Graduate School of Management, Korea Advanced Institute of Science and Technology, kjoon@kgsm.kaist.ac.kr

Yunjie Xu

Department of Information Systems, National University of Singapore, 2 Science Drive 2, Singapore 117543
xuyj@comp.nus.edu.sg

INTRODUCTION

With the increase of Internet users, the numbers of clicks on the websites of Internet vendors have grown considerably. However, vendors have experienced disappointment in converting these clicks into purchases. Lack of trust is identified as one of the greatest barriers inhibiting Internet transaction (Hoffman *et al.*, 1999). Trust is argued to affect purchase intention of new customers (Jarvenpaa *et al.*, 2000) and the loyalty of repeat customers (Gefen, 2002).

According to social exchange theory (Blau, 1964), trust is constantly modified in the process of exchange between the partners over time. In the initial phase of trust development, new customers tend to be more exploratory with an Internet vendor (McKnight *et al.*, 1998). No matter how much secondhand knowledge is known of the vendor, without real purchase experience, such knowledge alone is unlikely to lead to stabilized trust. In contrast, those customers who *have* purchase experiences with an Internet vendor can be more confident in their trust. In this way, trust evolves along the customer's experience with a vendor from an initial trust to stabilized trust (Jones and George, 1998).

Though the literature has proposed the notion of trust as a dynamic concept, little has been done to compare the different stages and nature of trust. In the context of Electronic Commerce (EC), much of the prior research investigated only the initial trust (i.e., Gefen *et al.*, 2003; Jarvenpaa *et al.*, 2000; McKnight *et al.*, 2002). The objective in this research is to examine the building of trust for new and repeat customers' of an Internet vendor. Similar to the classification of pre-encounter trust and post-encounter trust (Singh and Sirdeshmukh, 2000), we classify trust in an Internet vendor into two types, based on the online customer's purchase experience with that vendor: pre-purchase trust and post-purchase trust. Pre-purchase trust drives new customers to have the first transaction with a vendor, converting clicks into purchases (Jarvenpaa *et al.*, 2000). Post-purchase trust influences repeat customers to have a long-term relationship with a vendor (Gefen, 2002). For this reason, understanding how trust is built and evolves over purchase experience is critical to the proliferation of EC. To this end, this study addresses two research questions: (1) what factors foster trust in an Internet vendor for new and repeat customers respectively? (2) how is trust built differently by new and repeat customers?

CONCEPTUAL BACKGROUND AND RESEARCH MODELS

In the EC environment, online customers and Internet vendors interact electronically through an electronic medium. The online customer, Internet vendor, and the Internet-based transaction are the three entities considered to be the key elements in EC (Lee and Turban, 2001). Online customers, as the subjects of trust, have two roles: service consumers and website users (Jarvenpaa, 1996-97). As service consumers, they seek quality service; as website users, they seek quality websites. Service quality and website quality result in online customer satisfaction. Satisfaction, as an overall evaluation of a customer's experience with the vendor, may affect trust building. The other two entities, Internet vendor and Internet-based transaction, can be regarded as the objects of trust. With respect to the Internet vendor, it is argued that reputation as a main characteristic signals the degree of trustworthiness (Doney and Cannon, 1997). Regarding the Internet-based transaction, it is considered that transaction safety is one of the barriers inhibiting Internet transactions (Lynch *et al.*, 2001). Structural assurance, which is the managerial and technical infrastructure to give assurance to customers, may support customers' perception of safety of Internet transactions. Consequently, structural assurance affects trust building. We will review how trust is influenced by the dual roles of online customers, the vendor's characteristics, and the nature of Internet-based transactions as we develop the research model as in Figure 1.

The trust in a trustee has been conceptualized as the belief about certain traits of the trustee, or as an attitude towards the trustee (Mayer *et al.*, 1995; McKnight *et al.*, 1998). As a belief, it is a holistic concept that includes both the cognitive and affective components (Bhattacherjee, 2002). As an attitude, it reflects human affect. Following previous research (Blau, 1964), this study views trust as an aggregation of beliefs; and defines trust as the belief that a party's promise is reliable and that the party will fulfill its obligations in an exchange relationship.

For repeat customers, satisfaction from prior experience(s) can be good evidence of trust. Following McKinney *et al.*(2002), we define satisfaction as "an affective state representing an emotional reaction to an Internet transaction". It was argued that satisfaction is a manifestation of the vendor's ability to meet customer's expectations in the past, while trust is the belief that the same quality service will be delivered in the future (Singh and Sirdeshmukh, 2000). Therefore, customer satisfaction will lead to trust for repeat customers. Hence,

H1: Online customer satisfaction is positively related to trust for repeat customers.

Following Fombrum and Riel(1997), we define reputation as "a collective representation of firm's past actions and results that describes the firm's ability to deliver valued outcomes to multiple stakeholders". It is an evaluation by people of the company's past performance and

Figure 1: Research Models
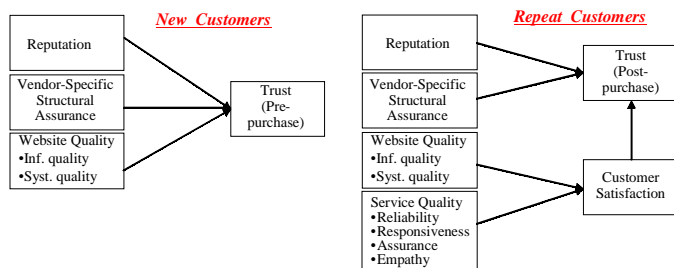
behavior. Reputation can be viewed as a signal of the vender's trustworthiness. The signaling theory posits that signals are the observable actions or strategies chosen by the seller to credibly convey the unobservable qualities to the customers; and the signal should be costly so that the low-quality competitor will not be able to emulate (Mishra *et al*., 1998). Reputation can signal unobservable trustworthiness because it is built on prior financial/non-financial investment; engaging in untrustworthy behavior will ruin the reputation and forfeit the investment. Reputation has been suggested to be a key antecedent of trustworthiness of a company (Doney and Cannon, 1997). Hence,

H2(a,b): Reputation is positively related to trust for new and repeat customers.

The Internet medium is regarded as a type of computer-mediated interaction and communications (CMC) technology. CMC is characterized as having a low degree of social presence. Social presence theory posits that the lack of social presence increases uncertainties and lowers the safety perception of a transaction (Kumar *et al*., 1995). When social presence is low, as in the case of impersonal trust, institutional assurance such as the regulations and policies helps to create a safe and secure transaction environment (Shapiro, 1987). In the online environment, both the institutional assurance and the technology can affect the safety perception of online transactions (McKnight *et al.*, 2002). However, the safety perception of Internet transactions with a specific vendor is more dependent on the specific transaction environment of the vendor rather than the general Internet environment. The vendor specific institutional guardians, such as returning policy, can reduce the uncertainties of online transactions. With respect to the technological aspect of assurance, the technological guardians, such as security assurance by the third party and the security statement of each vendor, can enhance the safety perception of the customers. The greater the effort that the vender puts into the structural safeguards, the more the customers will be convinced that the site is safe for transaction and the vendor is trustworthy (Grazioli and Jarvenpaa, 2000). Hence,

H3(a,b): Vendor-specific structural assurance is positively related to trust for both new and repeat customers.

Online customers need to access the vendor's website for transaction or information gathering. Similar to the storefronts as a signaling mechanism (Ippolito, 1990), website signals the unobservable trustworthiness of an Internet vendor. Thus, customers infer the quality of an Internet vendor from the vendor's Website according to facets of signaling theory. The self-perception theory (Bem, 1972) posits that the attitude towards another party is formed through the interaction with that party and the circumstantial information. The online customers' behavior (i.e., navigating the website) and the circumstance (i.e., website) enable them to form their trust toward the vendor. For this reason, website quality is argued to be an antecedent of online customers' trust in an Internet vendor (McKnight *et al*., 2002). Website quality has two different aspects: web-information quality and web-system quality (McKinney *et al*., 2002). Hence,

H4(a,b): Website quality (information quality, system quality) is positively related to trust for new customers.

While website is a channel for gathering information and evaluating the trustworthiness of the vendor for new customers, it is more a means to successful transactions for repeat customers. When the website is used for a transaction purpose, it is regarded as part of transaction experience. Therefore, the immediate outcome for repeat customers of using the website is that it affects the satisfaction of the overall transaction experience. However, it is not reasonable to expect customer satisfaction of new customers before having transactions with a vendor because customer satisfaction represents an emotional reaction to a transaction (McKinney *et al*., 2002). Hence,

H5(a,b): Website quality (information quality, system quality) is positively related to online customer satisfaction for repeat customers.

It has been identified that consumer satisfaction is best specified as a function of perceived service quality (Anderson and Sullivan, 1993). Providing high quality service would satisfy online customers. A consumer's assessment of the overall service quality can be measured using SERVQUAL model (Parasuraman *et al*., 1988) based on five underlying dimensions: tangibles, reliability, responsiveness, assurance, and empathy. Tangibles deal with appealing appearances of physical facilities. Consistent with Devaraj *et al*.(2002), we do not consider tangible dimensions in online service quality because there is no physical facility in an online store. Hence,

H6(a,b,c,d): Service quality (reliability, responsiveness, assurance, and empathy) is positively related to online customer satisfaction for repeat customers.

RESEARCH METHODOLOGY

This study adopted existing validated scales and experimental procedures whenever possible. We adapted the construct of reputation from Doney and Canon(1997), the construct of structural assurance from McKnight *et al*.(2002), and the scale of website quality from McKinney *et al.,* (2002). We adopted the perception-only instrument of service quality from Devaraj *et al*.(2002) and customer satisfaction from Spreng *et al*.(1996). The trust construct has been argued as a multi-dimensional construct covering ability, integrity and benevolence (Mayers *et al*., 1995). However, in the transactional context, Doney and Cannon(1997) found only one dimension. For this reason, we use the one dimensional construct of trust from Grazioli and Jarvenpaa(2000).

Using the seven-point Likert scale, we developed two different questionnaires for new and repeat customers based on the research models. Two information systems researchers and one marketing scholar reviewed the instrument. The questionnaires were also discussed in focus-group interviews of 15 people, some of them have Internet shopping experiences and others have not. Upon reflection of the feedback, we refined the final list of items for each questionnaire.

Empirical data for this study was collected via an online survey of Internet bookstore customers. We selected an online bookstore because a book is a standard product and it has less variation in quality. To improve response rate, US$5 was offered to 200 respondents as an incentive to stimulate participation. Respondents could gain access to the survey from the homepage of the Internet bookstore. Detailed descriptive statistics of the respondents' characteristics are shown in Table 1.

Table 1: Descriptive Statistics of the Respondents

Measure	Items	New Customers		Experienced Customers	
		Frequency	Percent	Frequency	Percent
Gender	Female	109	53%	722	67%
	Male	97	47%	1443	33%
	Total	206	100%	2165	100%
Age	< 20	23	11%	208	10%
	20-29	126	61%	850	39%
	30-39	45	22%	949	44%
	> 39	12	6%	158	7%
	Total	206	100%	2165	100%

Table 2: Research Variables

	New Customers			Experienced Customers			Independent two samples test	
	Reliability	Mean	S.D.	Reliability	Mean	S.D.	Levene's test	t-test
Reputation	0.907	4.694	1.174	0.850	5.301	0.948	19.365***	7.207***
Vendor-specific Structural Assurance	0.942	4.507	1.082	0.922	5.207	1.027	0.023	9.306***
Website Quality								
- Info. Quality	0.935	4.702	1.091	0.926	5.357	0.995	0.789	8.943***
- System Quality	0.915	4.747	1.058	0.900	5.319	1.017	0.609	7.872***
Service Quality								
- Services Level	N/A	N/A	N/A	0.941	5.263	1.017	N/A	N/A
- Empathy	N/A	N/A	N/A	0.861	5.042	1.081	N/A	N/A
Customer Satisfaction	N/A	N/A	N/A	0.898	5.570	1.921	N/A	N/A
Trust	0.936	4.756	1.085	0.917	5.778	0.921	9.672**	13.081***

**: p < 0.01;   ***: p < 0.001

Table 3: Results of Hypotheses Testing

Target	Model	R^2	F	β	Results
For New Customers	**(1) Trust (Pre-Purchase)** Trust = Rep + VSA + IQ + SQ + errors	0.792	190.983***		
	Rep			0.612***	H2a supported
	VSA			0.070	H3a not supported
	IQ			0.115**	H4a supported
	SQ			0.190***	H4b supported
For Experienced Customers	**(2) Trust (Post-Purchase)** Trust = Rep + VSA + CS + errors	0.633	1240.931***		
	Rep			0.316***	H2b supported
	VSA			0.183***	H3b supported
	CS			0.452***	H1 supported
	(3) Customer Satisfaction CS = IQ + SQ + SERV + EMP + errors	0.370	317.410***		
	IQ			0.134***	H5a supported
	SQ			0.154***	H5b supported
	SERV			0.333***	H6a,b,c partially supported
	EMP			0.093***	H6d supported

**:p<0.01;   ***:p<0.001

DATA ANALYSIS AND RESULTS

We conducted the principal component factor analyses with VARIMAX rotation. The SERVQUAL items loaded on two factors: (1) *empathy* and (2) a combined factor, s*ervices level*, reflecting *responsiveness*, *assurance,* and *reliability*. This result is similar to the previous online service quality research (Gefen, 2002) because of the unstable dimensionality of SERVQUAL (Van Dyke *et al*., 1999). All the items of other independent variables were loaded on each distinct factor and explained 81.8% and 75.67% respectively of the total variances, for new and repeat customers. *Trust* items for new customers showed convergent validity with factor loadings all above 0.8. The two dependent factors (i.e., *customer satisfaction* and *trust*) for repeat customers were also extracted as expected. The means, standard deviations, and reliabilities of all constructs are summarized in Table 2. The scales also showed good reliability with Cronbach's alphas greater than 0.80.

We conducted a Pearson correlation analysis. Although several variables show significant correlations, their tolerance values range from 0.407 to 0.697, indicating that multicollinearity is not likely to be a threat to the parameter estimates. Table 3 shows the results of the multiple regression analyses for the hypotheses.

(Note) Rep:Reputation; VSA:Vendor-Specific Structural Assurance; IQ:Information Quality; SQ:System Quality; SERV:Services Level; EMP:Empathy; CS:Customer Satisfaction.

DISCUSSION

We found that the trust building of new and repeat customers differ significantly. In particular, vendor-specific structural assurance was found to be insignificant for trust with new customers, while it was significant with repeat customers. One possible explanation is that new customers did not pay much attention to the structural assurance of the vendor if they do not seriously plan to buy. On the contrary, most repeat customers might pay attention to assurances such as privacy and security policies in their purchase decisions. Repeat customers could also estimate after transactions whether the assurance was effective or not. This result is similar to the argument of previous research (i.e., Hoffman *et al*., 1999) that the more experienced a customer is, the more important are concerns of security and privacy. For these reasons, vendor-specific structural assurance may be significant not for new customers but for repeat ones.

This study also found that customer satisfaction has a significant relationship with post-purchase trust. Previous research (i.e., Belanger *et al*., 2002) indicated that customer satisfaction drives purchase intentions regardless of privacy and security concerns. We can infer that customer satisfaction is more salient than safety issue, vendor-specific structural assurance in this research, for repeat customers. We can also infer that customer satisfaction as the result of direct transaction experience may be more salient than the second-hand information, reputation, according to the theory of attitude-behavior consistency (Fazio and Zanna, 1981). The theory posits that a direct experience has stronger effect on attitude formation than an indirect experience. The weaker effects of reputation and vendor-specific structural assurance on trust than that of customer satisfaction for repeat customers can also be explained by the cognitive dissonance theory (Festinger, 1957). It is possible for customers to perceive that the antecedents are dissonant each other regarding the trustworthiness of vendor. In such case, the dissonance may be moderated by the importance of each antecedent. Thus, when customers view the vendor as trustworthy through direct experience and if the second-hand information or vendor-specific structural assurance is dissonant with the later evidence, they will downplay the importance of any dissonant factor. In that case, the customers value satisfaction, an overall evaluation of a customer's direct experience with the vendor, more than other factors in trust building and purchase intention (Belanger *et al.*, 2002). By adding the satisfaction construct after other antecedents in a hierarchical regression analysis, we could confirm the significant contribution of satisfaction to trust for repeat customers (The change of R^2=0.133, *F* change=781.535, Significance of *F* change<0.001). A stepwise regression analysis also indicated that customer satisfaction is the first antecedent for trust.

We can discuss different levels of reputation effect on trust building between new customers (b=0.612, p<0.001) and repeat customers (b=0.316, p<0.001). A Fisher's z test showed that the regression coefficients for *reputation* were significantly different between new and repeat customers (Fisher's Z=6.558, p<0.001). This is consistent with the theory of attitude-behavior consistency (Fazio and Zanna, 1981). If a customer has no transaction or exchange experience with the vendor, his/her perception of the vendor has effects on trust, predominantly through secondhand information like reputation. If customers have purchase experiences with the vendor, the direct experiences may be more important on trust building than other indirect factors. It may imply that customer tenure may moderate the relationship between the antecedents and trust in the vendor.

IMPLICATIONS AND CONCLUSION

This research has several implications. From the theory perspective, this study classified trust in the Internet vendor into pre-purchase and post-purchase trusts based on the purchase experience of customers with the vendor. The study provides preliminary evidence suggesting that pre-purchase and post-purchase trusts are determined by different factors. For repeat customers, customer satisfaction seems to have more significant effect on trust building than other factors. On the contrary, reputation seems to have a more significant effect for new customers. The distinction between pre-purchase and post-purchase trusts may suggest future research directions in the area of studies related to customer attitude-behavior change. A study to investigate its change over time may be required.

From the practitioner perspective, the findings have important implications for EC. The study suggests that new customers evaluate the

trustworthiness of a vendor mainly based on the reputation and website quality. Especially, reputation seems to have a stronger effect on trust building than other factors. Internet vendors need to put effort into their reputation building, such as leveraging the word-of-mouth effect and increasing the level of advertising. By enhancing the reputation, Internet vendors could attract potential customers and increase their transaction intentions. Internet vendors also need to put their effort in satisfying repeat customers with quality service and a quality website, and should not fail to notice the importance of their own structural assurance and reputation. Consequently vendors may increase re-purchase intentions and enhance loyalty of repeat customers.

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