What creates trust and who gets loyalty in social commerce?

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ABSTRACT

With the spread of smartphones and the growth of Internet retailing, new possibilities for social commerce have opened up within existing social network services (SNSs). Within SNSs, any individual can sell and promote goods as a retailer. Therefore, unlike in other electronic commerce, consumers' trust in the individual vendor has become important, and now the individual vendors can make their customers loyal to them rather than to the platform. For the purpose, in this study we determine whether the trust of both platform and individual vendor affects customers' attitudes and accumulates customer loyalty. In addition, we categorize word-of-mouth into heuristic and systematic groups and investigate the effect of those factors on the intention to buy and on actual purchasing behavior. The results show that the individual vendor's trust has no significant effect but customer loyalty is accumulated by individual vendors. In addition, heuristic factors have a significant effect on purchasing behavior, whereas systematic factors have a significant effect on attitude and intention to buy.

1. Introduction

The emergence and development of the Internet brought commerce into the online world. Electronic commerce (e-commerce) has made it easier for consumers to find information about goods and compare prices. In addition, vendors can now more easily market themselves and their products by using the Internet. Based on these advantages, according to Meeker (2018), e-commerce exceeded 14% of US retailing in 2018, and according to the 1421 Consulting Group (2018), China's e-commerce transactions are expected to exceed $1 trillion by the end of 2019.

However, e-commerce became commonplace only by overcoming there were many obstacles. The biggest hurdle was how to provide trust to consumers (Reichheld and Schefter, 2000). Within the e-commerce environment, the consumer must trust the vendor more than in off-line purchases because the consumer cannot directly identify the purchase, decision, payment, and delivery processes (Christine Roy et al., 2001). Therefore, Gefen (2000), Jarvenpaa et al. (1998), Jarvenpaa et al. (1999), McKnight et al. (2000) and other have studied the concept of trust in e-commerce. According to Doney and Cannon (1997) and Gefen and Straub (2004), consumers are more influenced by their trust in providers for shopping platforms such as Amazon.com and eBay, as opposed to smaller vendors, because small-scale vendors are more limited in their ability to provide trust to consumers. Large platform providers are also more successful in gaining consumer loyalty after the purchase. Because of customer loyalty, 66% of Amazon.com sales are

from repurchasing customers (The Economist, 2000), and eBay is attracting new customers because of its referral system based on loyal existing customers (Reichheld and Schefter, 2000).

However, as social networking services (SNSs) diversified, the dynamics of vendors and platforms in e-commerce changed. The widespread increase of Internet-based social interaction has encouraged online customers to purchase everyday items (e.g., clothes, accessories, food) directly from other users (especially influential users) within SNSs who have begun selling goods as vendors. The selling of items via an SNS is called social commerce (s-commerce, and within it, one can build strong relationships between customers and vendors, and potential customers can be provided with others' reactions and information about products through text messages and photos taken by others in their daily life (Stephen and Toubia, 2010). In particular, Instagram, the photo-based SNS platform, facilitates interaction between customers and vendors, and many influencers are using it as an individual product sales channel. Content-based personal interaction results in a high probability of an actual purchase, which indicates that social media platforms are being used as personalized retail channels that affect the real economy (Khamis et al., 2017).

Unlike traditional e-commerce platforms, which emphasize platform-based trust and trade safety (Kim et al., 2009), the s-commerce platform is not responsible for any fraud by users of its platform. As a result, the customer has a greater need to identify the trustworthiness of vendors. In s-commerce, customers judge the credibility of vendors through quantitative indicators such as the number of followers, likes,

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and comments (Chen et al., 2018; Xiao et al., 2018; Zhang et al., 2014). Immediate interaction and feedback from the vendor play critical roles in compensating for the customer's perceived risk in the purchase process (Kim and Park, 2013). In other words, heuristic or peripheral information cues influence customers' level of trust in the vendor and the platform.

In s-commerce, there is a possibility that the purchasing experience will lead directly to vendor loyalty without going through platform loyalty because the vendor can communicate directly with the customer due to the nature of the simultaneously public and personal space of the SNS. However, in contrast to the traditional e-commerce channels such as Amazon and Alibaba, which collectively manage the quality of products with their customers, s-commerce platforms are limited in terms of receiving a large number of ratings and reviews about vendors and products. Therefore, it is difficult to understand (quantitatively and qualitatively) whether actual purchase behavior leads to loyalty to the vendor and/or platform in s-commerce. Therefore, this study has two research questions:

RQ1: Do user comments affect the online purchase process?

RQ2: Do users buy because of trust in the vendor or the s-commerce platform, and do user purchases leads to user loyalty to vendors or to the platform?

According to Zhang et al. (2014), factors affecting the purchase intention of customers can be characterized into types quantitative and qualitative types, and these types affect customers heuristically and systematically, respectively. Quantitative features (e.g., number of likes, length of comments) can be observed without understanding the context, providing heuristic cues, whereas qualitative features are abstract and judged logically and systematically based on several values. Thus the latter type requires some effort to evaluate (Maslowska et al., 2017; Sridhar and Srinivasan, 2012). However, few studies have focused on how heuristic and systematic factors affect a user's purchase process. Inspired by the heuristics and systematics model (HSM), in this study we draw on the theory of planned behavior (TPB) to investigate the effect of heuristic and systematic factors on the purchase process in s-commerce. Both the HSM and the TPB, which seek to explain behavioral changes based on the consumers' perceptions of online product, have been extensively used in online commerce research to explore the antecedents of certain types of behavior (Zhang et al., 2014; Xiao et al., 2018). This study also tests the effects of heuristic factors and systematic factors toward actual purchasing behavior.

The composition of this study is as follows. Section 2 reviews existing literature related to trust and word-of-mouth in online shopping. Section 3 proposes a research model and provides a basis for establishing hypotheses. Section 4 shows the data and results, and Section 5 discusses the results and conclusions.

2. Literature review

2.1. Trust

According to Doney and Cannon (1997), trust represents confidence in the other party. The authors claimed that trust can reduce unnecessary behaviors and costs in the process of collaborating and forming a relationship network (Kim et al., 2008). Studies have defined trust in various contexts, such as psychology and social science (Lewis and Weigert, 1985) and have argued that trust originates from differential cognitive processes for trustworthy, distrustful, or unknown persons and institutions. Mayer et al. (1995) asserted that trust is a subjective interpretation, and there are three approaches to interpreting trust. First, propensity theory focuses on individual characteristics. It is an approach to how an individual intends to trust. Second, behavioral decision theory focuses on immediate situational factors and claims that trust is a relatively rational decision-making process. Third, the institutional approach argues that situational factors and organizational and institutional structures influence trust.

Other studies have investigated the multidimensional feature of trust in the context of commerce. Lewis and Weigert (1985) classified trust in commerce as cognitive trust and emotional trust. Cognitive trust is the degree to which a consumer believes in the seller's ability and that the seller will act consistently (Moorman et al., 1992). Cognitive trust includes the three dimensions of integrity, benevolence, and ability (McKnight et al., 2002). Integrity here refers to the willingness of the company and the seller to keep their promises in the sales process or confidence in the consumer's standpoint. Benevolence involves the welfare of consumers (Doney and Cannon, 1997), in which sellers and companies talk about some generous behavior that will benefit consumers. Ability refers to a company's or seller's capacity to have consumers (Coulter and Coulter, 2002). Emotional trust refers to how a consumer feels about a company (Rempel et al., 1985). Although cognitive trust is based on corporate behavior, emotional trust is created through relationships between consumers and sellers. Cognitive trust affects emotional trust (Rempel et al., 1985). In addition, Lewis and Weigert (1985) viewed cognitive trust and emotional trust as components of behavioral trust. This trust has been studied extensively in e-commerce.

Other studies on trust in commerce includede Koller (1988), who argued that trust is important when there is uncertainty and incomplete product information, especially in the context of merchant–consumer transactions. According to Hawes et al. (1989), trust plays an effective role between the buyer and the seller. Hsin Chang and Wen Chen, 2008 insisted that trust in all e-commerce transactions, including s-commerce, has a positive effect on the seller and the vendor. Kim et al. (2008) showed that trust plays a major role in a consumer's purchase decision process, and recent studies have seen trust as an important influence on consumers' purchase intentions (e.g., Hajli et al., 2017; Lu et al., 2016; Oliveira et al., 2017; Xiao et al., 2019; Yahia et al., 2018). Therefore, we see trust as a vital influence on the transaction process of s-commerce.

2.2. Online word of mouth

Arndt (1967) defined word-of-mouth effects as "communication between recipients and recipients of products that are perceived as noncommercial by brands, products, services, or providers." Word-of-mouth is important in marketing and a common topic in market research, such as Mahajan et al. (1984), who found that word-of-mouth affects the sales of movies in the film industry, and Anderson (1998), who showed that word-of-mouth effects appear among both satisfied and unsatisfied consumers.

However, the effect of online word-of-mouth is different from the effect of offline word-of mouth in many aspects. For most Internet purchasers, online word-of-mouth information comes from strangers, so purchasers cannot know if such information has been posted for a non-commercial purpose or not. Chevalier and Mayzlin (2006) distinguished between offline and online retailing, analyzing Amazon online and Barnes & Noble offline. They found that word-of-mouth effects in online bookstores were greater than in offline bookstores. Amazon had more information than Barnes & Noble, and eventually, the high level of word-of-mouth effect led to an increase in sales.

Hennig-Thurau et al. (2004) investigated word-of-mouth in customer motivation and found the main motivations for consumers to read reviews were to reduce risk, shorten search time, and understand how to use the product, reduce disappointment after purchase, and search for new products. Among these, shortening of decision-making time and motivation toward purchase were the most important customer-focused factors of the word-of-mouth effect. In addition, they investigated the motivations of activities that cause word-of-mouth effects (e.g., economic pursuits, coupons). Chatterjee (2001) created an imaginary interactive shopping mall and investigated the effects of Internet word-of-mouth through a virtual consumer survey. The results showed that negative consumer reviews have a decisive influence on

consumer trust and purchase intention in Internet shopping malls. From the literature, we can see that word-of-mouth activity on the Internet affects online customers and the benefits of an online shopping experience. In addition, it can be seen that the word-of-mouth effect is more important in the online environment than in the offline environment.

According to Bolton et al. (2004), online reviews are vulnerable to manipulation, so the word-of-mouth effect is one of the most important factors for consumers in purchasing on SNSs. Previous studies have not established whether it affects actual purchasing. In addition, few studies have analyzed the types of word-of-mouth effects or analyzed them in relation to psychological factors. Therefore, the purpose of this study is to divide the actual purchase and purchasing behavioral intention to further segment the level of the word-of-mouth effect on the Internet commerce circumstance and to reduce the gap between them.

This study distinguishes the existing studies from the following points. First, unlike in previous studies, we analyze s-commerce. Second, this study divides trust and loyalty into trust (loyalty) related to vendor and trust (loyalty) related to platform and tries to prove that the effects of two trust (loyalty) types are actually different. Third, consumers often do not actually purchase even with intentions to purchase, so we divide variables related to user comments into heuristic and systematic variables to show that the variables affecting intention and actual behavior are different.

3. Research model and hypothesis development

3.1. Vendor trust

According to Doney and Cannon (1997), trust is the perceived belief to counterparts. Bradach and Eccles (1989) argued that trust eliminates consumers' fear that trading partners may take advantage of them. In addition, Reichheld and Schefter (2000) asserted that trust in vendors is important because it is easier for vendors to act unethically online than in traditional offline transactions. In building trust in e-commerce, McKnight et al. (2002) argued that vendor reputation is an important factor. Trust also affects consumer attitudes toward purchasing. Gefen (2004) argued that trust affects attitudes in online business-to-customer situations. Based on the literature, we test the following hypothesis.

Hypothesis 1. (H1): Trust in the vendor is positively related to attitude toward purchase.

3.2. SNS trust

Although we found no research on the impact of trust on the SNS platform on consumers' attitudes toward purchasing, some studies have analyzed the impact of the website provided by the platform. McKnight et al. (2002) argued that a website's quality is a factor in establishing trust. Specifically, previous research on health websites indicated that complete information is provided through trust formation and affects the function of the website (Beldad et al., 2010). Likewise, many studies have clarified that consumer trust increases when the consumer receives reliable, correct, and timely information from the website. We test the following hypothesis.

Hypothesis 2. (H2): Trust in the SNS is positively related to attitude on purchase.

3.3. Attitude, intention, and actual purchase

Attitudes have long been identified as a cause of intention (June et al., 2003). Typically, the theory of reasoned action (TRA) has been widely used to describe the relationship between user intention and behavior. According to TRA, behavior is determined by the intention of the human being to perform (Wu, 2003). Based on TRA, many previous

studies have shown that attitude affects intention (e.g., Kim et al., 2018; Kim et al., 2019; Lee et al., 2017; Shin et al., 2018).

In addition, studies have determined that intention has a positive effect on behavior. According to Ajzen (1991), intention is a direct precondition for action. Hung et al. (2003) and Lai (2004) showed that behavioral intention has a significant effect on behavior. The related hypotheses tested in this study are as follows:

Hypothesis 3. (H3): Attitude positively affects intention to buy.

Hypothesis 4. (H4): Intention to buy positively affects actual purchase behavior.

3.4. Loyalty

As information asymmetry between customers and vendors decreases with the proliferation of e-commerce, customer loyalty is becoming more important for vendors to maintain business continuity (Srinivasan et al., 2002). According to Oliver (1997), investing in customer satisfaction can lead to repurchases and increase revenues.

Customer loyalty can be explained via two differing concepts. From a behavioral point of view, customer loyalty is focused on the consequences of specific consumer behaviors and does not take consumer decisions into account. Meanwhile, Oliver (1997) argued that loyalty is determined by an attitudinal approach, including elements of cognition, emotion, and intention. The author attributed the cognitive factor to information about a specific product or brand and the emotional factor. Oliver (1997) suggested that relevant knowledge, the ability to give confidence, and the degree of care and attention improve loyalty. According to Anderson and Sullivan (1993), loyalty is formed after actual purchasing behavior. Therefore, we hypothesize that actual purchasing behavior leads to an increase in both vendor loyalty and SNS loyalty.

Hypothesis 5. (H5): Actual purchasing behavior has a positive effect on vendor loyalty.

Hypothesis 6. (H6): Actual purchasing behavior has a positive impact on SNS loyalty.

3.5. Heuristic and systematic processing

According to Zhang et al. (2018) and Chaiken (1980), two processing modes take effect when users evaluate information gathered online: heuristic processing and systematic processing. In heuristic processing, consumers identify the context of the message and make decisions based on experience. In systematic processing, consumers examine the proposed information by incorporating it into the information already known.

Heuristic processing is related to source reliability (Chaiken and Maheswaran, 1994), and the number of online reviews is an important decision-making factor (Park and Lee, 2008). According to Chaiken and Eagly (1989), the source of information is defined as a general recognition of the reliability of the review, not the content of the review. This can be interpreted as an acceptance of an empirical clue that the reviewer's statements can be trusted. This allows consumers to reduce uncertainty and helps them in their decision-making (Zhang et al., 2014). Thus, consumers are more likely to choose products recommended by others (Senecal and Nantel, 2004). Based on the literature, we test the following related hypotheses:

Hypothesis 7. (H7): Heuristic factors of word-of-mouth effects have a positive effect on attitude.

Hypothesis 8. (H8): Heuristic factors of word-of-mouth effects have positive effect on the intention to buy.

Hypothesis 9. (H9): Heuristic factors of word-of-mouth effects have a positive effect on actual purchasing behavior.

Systematic processing affects consumer behavior as well. According to Chaiken (1980), the higher the level of systematic processing, the more negative the effects of heuristic processing. Systematic processing plays a significant role when consumers are highly motivated and when they have a high level of information acquisition skill. Chaiken and Maheswaran (1994) argued that systematic and heuristic processing can have a greater impact if the empirical clue and recipient message content match, which is called bias effect. In addition, Cheung et al. (2008) studied the concept of the power of assertion, which is to find out what information received makes a person believe the information or take action. The influence of information is expressed in terms of relevance, timeliness, accuracy, and inclusiveness (Cheung and Thadani, 2012).

Zhang et al. (2014) argued that the quality of information has two dimensions. First, perceived intelligence indicates how relevant information quality is to online reviews. Second, perceived persuasiveness indicates how influential information quality is to online reviews. In addition, Park et al. (2007) mentioned that online reviews provide consumers with information and act as referrals, that the quality of online reviews should be persuasive, and that the quality of the information will affect the purchase intentions. Therefore, in this study, we measure systematic factors using the perceived information and the perceived persuasiveness. The related hypotheses we test are:

Hypothesis 10. H10. Systematic factors of word-of-mouth effects have a positive effect on attitude.

Hypothesis 11. H11. Systematic factors of word-of-mouth effects have a positive effect on the intention to buy.

Hypothesis 12. H12. Systematic factors of the word-of-mouth effects have a positive effect on actual purchasing behavior.

Based on the hypotheses established above, the research model to be analyzed by this study is as shown in Fig. 1.

4. Data and results

4.1. Data

To test the proposed hypotheses, we distributed a questionnaire to 330 respondents. Among them, the respondents who did not have shopping experience in SNSs and who did not answer the questions fully were excluded from the sample. We used the purposive quota sampling method to reflect the characteristics of the actual population. Of the 323 respondents, 163 were male and 160 female. The population in the age range 20–30 was the largest, at 130. For the age ranges 30–40, 40–50, and 50–60, there were 128, 32, and 33 respondents, respectively. As for the SNS used, 272 respondents used Facebook, 115 used Twitter, and 90 used Instagram (including duplicates). The demographic characteristics of the sample are shown in Table 1.

Table 1
Respondent characteristics.

	Details	Frequency	Percentage (%)
Age (years)	20–30	130	32.5
	31–40	128	28.6
	41–50	32	23.4
	Over 51	33	12.5
Gender	Female	160	49
	Male	163	50
SNS subscription	Facebook	272	47.3
	Twitter	115	20
	Instagram	90	15.7
	KakaoStory	80	13.9
	Pinterest	16	2.8
	Others	2	0.3

4.2. Reliability and validity of variables

In this study, we measured reliability using the SPSS Statistics 23 to determine the correlation between the measurement items used to measure the latent variables in the model. The results are shown in Table 2, where all factors were above 0.7, which is the general acceptance criterion. This result indicates that the latent variables used in this study had statistically internal consistency. In addition, we assessed convergent validity using AVE and factor analysis. In this study, all AVEs were above the required value of 0.5 (Chin, 1998), as shown in Table 3.

4.3. Model fit

This study analyzed the following variables: trust in the vendor, trust in the SNS platform, attitude, intention to buy, actual purchasing behavior, vendor loyalty, and loyalty to the SNS. The effect of word-of-mouth on intention to buy and actual purchasing behavior was analyzed by regression analysis of the structural equation model classifying the word-of-mouth effect into systematic and heuristic factors. The fit of this study model is shown in Table 4. In this study, RMSEA, CFI, and IFI was 0.064, 0.900, and 0.903, respectively, which are all in acceptable.

4.4. Estimation results

Using IBM AMOS 22, we investigated whether the trust toward the SNS platform and the vendor had a significant effect on the consumer's attitude, and whether actual purchasing behavior led to an increment in loyalty toward the vendor and SNS. We also analyzed the differences between heuristic factors and systematic factors in terms of their effects on attitude, intention to purchase, and actual purchasing behavior.

At first, the trust toward the platform had a positive effect on attitude (H2), but trust toward the vendor did not have a significant effect on attitude on the contrary to H1 as shown in Table 5. As we hypothesized in H2, SNS platform trust was positively associated with the consumer attitude in s-commerce. This is consistent with Lien and Cao
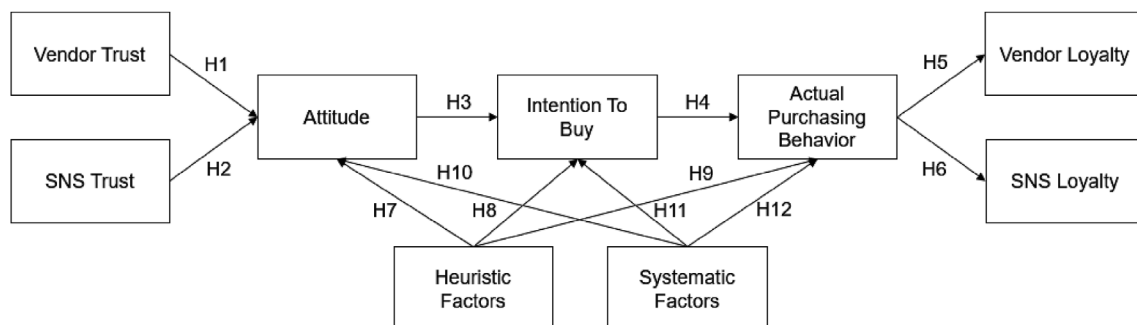

Fig. 1. Research model.

Table 2
Estimates of variables.

Variable	Cronbach's α	Unstandardized estimates	Standardized estimates	S.E.	C.R.	P
Vendor Trust 1	0.877	1.000	0.734			
Vendor Trust 2		0.995	0.683	0.085	11.753	***
Vendor Trust 3		1.017	0.718	0.082	12.406	***
Vendor Trust 4		1.114	0.825	0.078	14.289	***
Vendor Trust 5		0.981	0.807	0.070	13.976	***
SNS Trust 1	0.848	1.000	0.782			
SNS Trust 2		1.095	0.773	0.076	14.430	***
SNS Trust 3		1.036	0.673	0.084	12.305	***
SNS Trust 4		0.789	0.598	0.072	10.968	***
SNS Trust 5		1.050	0.835	0.067	15.759	***
Attitude 1	0.873	1.000	0.663			
Attitude 2		1.335	0.797	0.111	12.022	***
Attitude 3		1.242	0.789	0.104	11.936	***
Attitude 4		1.231	0.810	0.101	12.165	***
Intention to Buy 1	0.907	1.000	0.719			
Intention to Buy 2		1.152	0.789	0.083	13.929	***
Intention to Buy 3		1.043	0.798	0.074	14.077	***
Intention to Buy 4		1.139	0.813	0.080	14.310	***
Intention to Buy 5		1.057	0.828	0.072	14.721	***
Actual Purchasing Behavior 1	0.888	1.000	0.725			
Actual Purchasing Behavior2		1.081	0.806	0.059	18.176	***
Actual Purchasing Behavior 3		1.013	0.766	0.074	13.713	***
Actual Purchasing Behavior 4		0.988	0.706	0.079	12.576	***
Actual Purchasing Behavior 5		1.015	0.723	0.078	12.945	***
Vendor Loyalty 1	0.906	1.000	0.833			
Vendor Loyalty 2		1.003	0.813	0.058	17.445	***
Vendor Loyalty 3		0.963	0.758	0.061	15.758	***
Vendor Loyalty 4		0.945	0.773	0.059	16.154	***
Vendor Loyalty 5		0.898	0.748	0.059	15.329	***
SNS Loyalty 1	0.811	1.000	0.658			
SNS Loyalty 2		1.206	0.769	0.100	12.088	***
SNS Loyalty 3		1.200	0.792	0.097	12.364	***
SNS Loyalty 4		0.855	0.549	0.095	8.978	***
Heuristic Factors 1	0.904	1.000	0.816			
Heuristic Factors 2		0.938	0.751	0.056	16.868	***
Heuristic Factors 3		0.950	0.807	0.059	16.134	***
Heuristic Factors 4		1.010	0.810	0.063	16.021	***
Heuristic Factors 5		0.878	0.788	0.057	15.440	***
Systematic Factors 1	0.875	1.000	0.812			
Systematic Factors 2		0.969	0.780	0.055	17.535	***
Systematic Factors 3		0.931	0.778	0.067	13.870	***
Systematic Factors 4		0.983	0.780	0.066	14.947	***
Systematic Factors 5		0.729	0.643	0.061	11.963	***

(2014) and Shih et al. (2013), who found that user trust of online forums positively influences user attitudes toward the forum. However, trust toward unfamiliar s-commerce vendors does not have a significant effect on consumer attitudes toward s-commerce. In the online commerce environment, information about the company's reputation, such as well-known brand names, can help consumers build trust in vendors. However, vendors in SNS are not familiar to consumers, and trust in unfamiliar e-vendors does not have a significant impact on SNSs attitudes, as Brengman and Karimov (2012) asserted.

In addition, as we hypothesized, our results showed that attitude

Table 4
Research model fit.

Index	Value
Chi-square	1919.319
Chi-square/df	2.349
RMSEA	0.0.64
CFI	0.903
IFI	0.903

Table 3
Internal consistency correlations and reliability test.

Variable	AVE	C.R.	SNS Trust	Vendor Trust	Attitude	Intention to buy	Actual purchase	Heuristic factor	Systematic factor	SNS loyalty	Vendor loyalty
SNS Trust	0.642	0.898	**0.801**								
Vendor Trust	0.651	0.903	0.775**	**0.806**							
Attitude	0.704	0.904	0.582**	0.555**	**0.839**						
Intention to buy	0.721	0.928	0.654**	0.710**	0.745**	**0.849**					
Actual purchase	0.604	0.884	0.603**	0.651**	0.688**	0.842**	**0.777**				
Heuristic factor	0.684	0.915	0.712**	0.706**	0.579**	0.697**	0.684**	**0.827**			
Systematic factor	0.652	0.903	0.674**	0.663**	0.606**	0.742**	0.694**	0.737**	**0.807**		
SNS loyalty	0.599	0.854	0.637**	0.666**	0.678**	0.803**	0.774**	0.631**	0.677**	**0.773**	
Vendor loyalty	0.708	0.924	0.621**	0.714**	0.609**	0.812**	0.804**	0.667**	0.701**	0.840**	**0.841**

Notes: Diagonal elements are the square roots of AVE. The diagonal elements should be larger than off-diagonal elements for discriminant validity.

Table 5
Hypothesis verification of the research model.

Hypothesis	Standardized Estimate	Unstandardized Estimate	S.E.	C.R.	P	Result
H1: Vendor Trust → Attitude	0.071	0.057	0.117	0.488	0.626	Not Supported
H2: SNS Trust →Attitude	0.263	0.220	0.122	1.798	0.072	Supported
H3: Attitude → Intention To Buy	0.423	0.499	0.067	7.479	***	Supported
H4: Intention To Buy → Actual Purchasing Behavior	0.833	0.945	0.088	10.785	***	Supported
H5: Actual Purchasing Behavior → Vendor Loyalty	0.951	0.958	0.067	14.303	***	Supported
H6: Actual Purchasing Behavior → SNS Loyalty	0.969	0.759	0.067	11.388	***	Supported
H7: Heuristic Factors → Attitude	0.098	0.066	0.089	0.737	0.461	Not Supported
H8: Heuristic Factors → Intention To Buy	0.146	0.115	0.074	1.554	0.120	Not Supported
H9: Heuristic Factors → Actual Purchasing Behavior	0.124	0.111	0.065	1.693	0.090	Supported
H10:Systematic Factors → Attitude	0.419	0.292	0.096	3.036	0.002	Supported
H11:Systematic Factors → Intention To Buy	0.471	0.386	0.085	4.567	***	Supported
H12:SystematicFactors → Actual Purchasing Behavior	0.025	0.024	0.082	0.289	0.773	Not Supported

positively affected the intention to buy (H3), and the intention to buy positively affected actual purchase behavior (H4). George (2002) reported that attitudes are closely related to the intention to use and intention is related to actual purchasing behavior in e-commerce. Likewise, our results indicated that there was a close relationship between attitude, intention to buy, and actual purchase behavior in s-commerce.

We also found that actual purchasing behavior had a positive effect on both vendor loyalty (H5) and SNS loyalty (H6). Interestingly, support of H5 implies that vendor loyalty can be formed through the purchase process in s-commerce, even though vendor trust does not have a significant effect in the beginning.

Our results show that heuristic factors did not have a significant effect on attitude (H7), but systematic factors did (H10). Likewise, heuristic factors did not have a significant effect on the intention to buy (H8), but systematic factors did (H11). Meanwhile, heuristic factors had a positive effect on the actual purchasing behavior (H9), whereas systematic factors did not (H12).

Fig. 2 summarizes the results of Table 5 and reports R square values. As Fig. 2 shows, the R square value of the variables except attitude was high (intention to buy:.783, actual purchasing behavior: 0.899, vendor loyalty: 0.891, and SNS loyalty: 0.927). As can be seen in previous studies, many variables affect the attitude of consumers to commerce. In this study, however, we did not consider the other variables as they are not in our research interests, and therefore, it is the only reason that the R square of attitude is 0.372. It is difficult to judge this as meaningless value.

5. Discussion and conclusion

We examined the influence of heuristic and systematic factors on the consumer purchase process in s-commerce. Using HSM and TPB models, the results showed that the systematic factors and heuristic factors had different effects on the consumer purchasing decision process; systematic factors affected attitude and intention to buy, whereas

heuristic factors affected actual purchasing behavior. This study is meaningful in that it addresses an integrated model combining the consumer purchasing process with the social psychological information processing process in the rapidly growing s-commerce industry. This study provides significant implications for both academia and industry.

Implications of this study for academia are many. First, this study furthers the understanding of how user review information influences the actual purchasing behavior of consumers from the perspective of HSM. Considering that some previous studies have applied the HSM model to online reviews in the decision-making process, we empirically investigated consumer purchasing decisions based on information within the s-commerce environment. Second, this study considered both trust and loyalty for each SNS platform and vendor. Many studies have analyzed trust and loyalty by focusing on either the platform or the vendor. However, we could not find a comprehensive approach to investigating both platform and vendor in terms of trust and loyalty in the literature. This study suggests a model that integrates the perception of the platform and the vendors in s-commerce that can be a reference for future research in this area.

Our findings here also offer useful information for creating social marketing strategies by understanding how heuristics and systematics influence consumer purchase behavior at different stages in the TPB model. First, the results showed that heuristic factors had significant influence on the purchase decision of the consumers, indicating that marketers should pay attention to product information delivered by experts who rely on accessible context information. Second, the results indicated that trust and loyalty for platform and vendor were significantly different. In particular, there was no significant effect of vendor trust at first; however, through the purchasing process, vendor loyalty was produced. In s-commerce, it is possible to build vendor loyalty through the purchasing activities of consumers even though the vendor is not a famous influencer. In conclusion, we suggest that marketers should encourage beneficial opinion leaders who specialize in products to show their opinions in empirical and peripheral
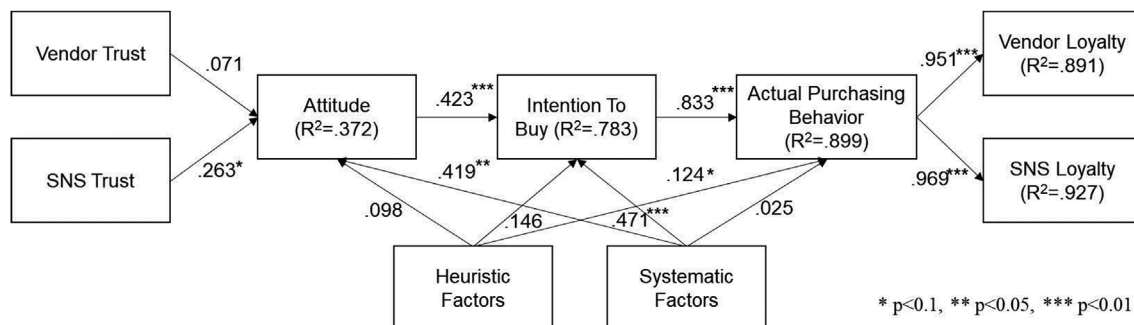

Fig. 2. Estimation result.

formation.

Although the study's findings provide meaningful implications, there are several limitations. First, although a large variety of products is available for purchase within s-commerce, our survey included a relatively small number of sample cases, so consumer preferences were not fully reflected in this study. Second, this study did not consider age and gender as possible moderators of purchase in s-commerce. Third, because only participants in South Korea were surveyed, the conclusions of the study may differ if we survey people from other countries. For continuing research in this area, we suggest a future comparison between s-commerce and in e-commerce in terms of the influence of information processing on consumer purchase decisions.

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