An Empirical Study of Knowledge Sharing Behavior of the SNS: A Case Study of "Sina Weibo"

Jinku Lu[a], Jongki Kim[b,*]

[a] Ph.D. Candidate, Department of Business Administration, Pusan National University, Korea
[b] Professor, Department of Business Administration, Pusan National University, Korea

A B S T R A C T

Social networking services (SNS) have become a significant platform for Internet users to obtain knowledge and information. Users can share messages mutually via this platform. This kind of sharing enables users to exchange and gain useful information. However, in recent years, the crisis of stickiness has appeared in SNS, calling attention to the social network industry. Relevant professionals explain that the interest of users in sharing knowledge on SNS websites and applications may gradually decrease, eventually leading to users giving it because the platforms utilize simple and uninteresting methods to attract active participation from users. However, factors affecting the knowledge sharing on SNS websites and applications should be identified clearly through studies. Sina Weibo is one of the largest SNS platforms in the world, and studies on the factors affecting knowledge sharing of users could be valuable in addressing this issue. This paper establishes the theoretical analysis model of knowledge sharing in SNS sites and applications, analyzes the factors affecting knowledge sharing on these sites, and proposes the corresponding strategies to address the issues.

Using questionnaire surveys on Sina Weibo users, this article will discuss the factors affecting knowledge sharing, and analyze these factors on SNS as well as improve the stickiness of users to achieve the aim of SNS platforms enabling the expansion of the range of users. The study will discuss theoretical foundations and the hypotheses that arise. The method of study will also be discussed. The study concludes with theoretical implications, practical implications, limitations, and future research opportunities.

The results of this study could aid researchers in understanding the underlying reasons for social network activities as well as for SNS developers in improving SNS services.

Keywords: SNS, Knowledge Sharing Behavior, Sina Weibo, Theory of Rational Action, Theory of Planning Behavior

I. Introduction

In the present daily life, SNSs have played an in-creasingly important role in our lives, especially in influencing the information-sharing and deci-sion-making of the customers (Kwok and Yu, 2013;

*Corresponding Author. E-mail: jkkim1@pusan.ac.kr Tel: 82515102582

Mangold and Faulds, 2009). On the SNSs, users are permitted to express themselves and build new social relations capable of improving interactions between them. Many people have integrated these SNSs into their daily lives individuals, especially college students, spend hours on SNSs every day. On the SNSs, individuals are able to build their own profiles, establish and promote their communications with others, and view the list of connections from others (Boyd and Ellison, 2007). Moreover, SNSs have played important roles in many social events recently (Kang, 2012).

In recent years, with the rapid development of SNS site, Wechat and Microblog, Internet users have shifted from the traditional PC to the mobile terminal. SNS site can provide timely information communication and knowledge sharing, and present the tendency of rapid expansion. It has not only met the needs of users, but also created commercial value for websites and website builders, which is said to be a win-win result. To this paper establishes the theoretical analysis model of knowledge sharing in SNS site, analyzes the influence factors of knowledge sharing in SNS site, and puts forward the corresponding solutions aiming at the effects of associated factors. The rest of the paper is organized as follows: we briefly discuss our theoretical foundation, from which we develop our hypotheses. Next, we discuss the method of our study. Finally, we conclude with the theoretical implications, practical implications, limitations, and future research opportunities.

Ⅱ. Literature Review

Sharing Internet knowledge behavior is one kind of internet behavior: it means sharing knowledge through Internet, which is considered as the develop-

ment of traditional knowledge sharing. Therefore, Internet is the technical environment that people first take into consideration when they build the model of network knowledge sharing mechanism. Early in 1986, Davis had put forward the Technology Acceptance Model (TAM) (Davis, 1986). The TAM model claims that "behavior" is determined by "behavioral intention" which, however, is as well determined by the "attitude," while "attitude" is mainly influenced by "perceived usefulness" and "perceived ease of use." Moreover, "external variable" is also included in that model (Davis et al., 1989). By understanding the antecedents of actual knowledge sharing, extensive literature exists about attitude toward and intention to share knowledge as key predictors of actual knowledge sharing. Attitude toward knowledge sharing and the intention to share are used to interchange literature precepts. Based on the Theory of Reasoned Action (TRA), the intention to share knowledge is influenced by the combination of: First, attitude toward knowledge sharing as the result of the summary and individual's beliefs about knowledge sharing; and Second, the subjective norm as the result of the people's pin in an individual's environment. The dual combination of attitude and subject norms goes to influence intention to share, thereby leading to textual behavior eventually exhibited by anindividual. The Theory of Planned Behavior (TPB) is recenter modification of TRA. It has the same basic premises as TRA with the exception of adding perceived behavioral control, which is based on control believes and perceived facilitation (Chatzoglou and Vraimaki, 2009; Kuo and Young, 2008; Miller, 2005; Yang, 2008). It has been proved that is valuable in understanding human behaviors. Further, TPB is an expansion of Fishbein's theory of reasoned action (Fishbein and Ajzen, 1975) and proposes that attitudes, subjective norms, and

perceived behavioral control could predict people's behavior (Ajzen and Fishbein, 2005). Intentions for participating in an explicit behavior could be regarded as closest antecedent to actual behavior, and intention towards the behavior would be formed by three factors, which are the effect or the attitude toward the behavior, subjective norm that could be analyzed as the social pressures for people who perform the behavior, and the perceived behavioral control which is the perceived ease or confidence toward a behavior (Eddosary et al., 2015).

According to the fact that the TAM model is based on the TRA, therefore, this paper holds that the construction of internet knowledge sharing behavior model should be based on the TRA, but it does not only reveal the mechanism of internet knowledge sharing behavior, but also its good applicability. Ajzen and Fishbein proposed the TRA theory in 1980, claiming that the individual behavior is determined by "behavioral intention" which, however, is dominated by "attitude toward the behavior" and "subjective norm" (Fishbein and Ajzen, 1975). The above theories are highly related to peoples' actions on Internet.

Knowledge sharing is the key and core of knowledge management. Only by knowledge sharing it can be possible to maximize the value of knowledge, to make the goal of knowledge management more effective, to develop the knowledge with purpose, and to maximize the value of digging knowledge. But the premises of digging knowledge are knowledge acquisition and accumulation. If users have sufficient and useful knowledge, they will share it through knowledge sharing, and achieve any valuable information for themselves. So, knowledge sharing is the key and core of knowledge management. At this time, according to the definition of knowledge sharing, many scholars analyze it from different angles, and it is mainly divided into four types: Hendriks

(1999) thinks that knowledge sharing is a kind of mutual connection and interaction behavior. He thinks that the sender externalizes his own knowledge, and the receiver internalizes it to receive knowledge. This process has a direct basic obstacle (Hendriks, 1999). Senge thinks that knowledge sharing is a way of organization learning. He explains that knowledge sharing is divided into individual knowledge sharing, learning opportunities sharing and encouraging others to learn. He thinks knowledge sharing is a process that senders convey knowledge to receivers, and help receivers to translate it into behavior ability (Senge, 1998). Nonaka (1994) thinks that knowledge sharing is a kind of knowledge interaction. He believes that knowledge can be divided into explicit knowledge and tacit knowledge. They can transfer from each other. Dominant knowledge transferring into explicit knowledge is called combination of knowledge. Explicit knowledge changing into invisible knowledge is called knowledge internalization. Tacit knowledge turning into explicit knowledge is called knowledge externalization. Tacit knowledge converting into invisible knowledge is called socialization.

Some domestic scholars believe that knowledge sharing is a whole activity with overall function, which can make knowledge add value by sharing knowledge integrally. Like for the definition of knowledge sharing, this article takes favor of Hendriks' view about interactive communication, which shows knowledge sharing is a new knowledge, information and other valuable things produced in the process of tight communication link between knowledge providers and receivers (Hendriks, 1999).

In this paper, we studied that the SNS site of knowledge sharing behavior refers to users' interactive behavior in SNS site, including visiting Sina Weibo fans' and friends' home page, replying com-

ments, attention degree, sharing collection, reviewing, posting status and other kinds of behavior providing explicit and implicit knowledge.

Ⅲ. Research Model and Hypothesis

This paper took Sina Weibo as the study object, constructing the knowledge sharing behavior model with the combination of the TRA, TPB and the TAM.

According to the fact that the TAM model is based on the TRA, this paper holds that the construction of internet knowledge sharing behavior model should be based on the TRA, but it does not only reveal the mechanism of internet knowledge sharing behavior, but also its good applicability. Ajzen and Fishbein proposed the TRA theory in 1980, claiming that the individual behavior is determined by "behavioral intention" which, however, is dominated by "attitude toward the behavior" and "subjective norm" (Fishbein and Ajzen, 1975). The above theories are highly related to peoples' actions on Internet.

The TPB (Ajzen and Fishbein, 1980; Ajzen, 1991) has proved to be useful as a framework in understanding a wide variety of human behaviors. The theory of planned behavior is an extension of Fishbein's theory of reasoned action (Fishbein and Ajzen, 1975) and proposes that people's behaviors can best be predicted by their attitudes, subjective norms, and perceived behavioral control (Ajzen and Fishbein 2005). Intentions to engage in an explicit behavior are the most proximal antecedent to actual behavior, and intention toward the behavior is shaped by three factors: one's affect or attitude toward the behavior; subjective norm, which is defined as the social pressures felt by to perform the behavior; and perceived behavioral control, defined as the perceived ease or confidence to ward a behavior. (Eddosary

et al., 2015)

According to the investigation and analysis of Sina Weibo, factors influencing knowledge sharing on SNS can be divided into four categories: The first is the inclination attitude of knowledge sharing behavior, including emotional attitude and instrumental attitude. The second category is subjective norm of knowledge sharing, which includes self-sense of belonging, sense of privacy, trust and perception value. The third class is self-efficacy. It is the judgment, belief, or feelings of capability which are needed by individuals to complete an activity at a certain level. It is associated with one's personal ability level, but does not represent real ability level (Kankanhalli et al., 2005; Wasko and Faraj, 2000). The fourth class is outcome expectancy. Outcome expectancy is people's preconception and estimation for some certain results through surveys and analyses. Sina Weibo knowledge sharing behavior is a kind of interactive behavior. When people expect the disadvantages of such actions, they will stop proceeding; otherwise, they would continue.

Through investigation and analysis, the influencing factors of knowledge sharing intention and behavior are selected and separated as follows subjective norms, inclination attitude, self-efficacy, outcome expectancy and intention. And then they are designed into a "conceptual model." Subjective norm factor of knowledge sharing contains four independent variables, which are sense of belonging, sense of privacy, trust and perception value. The inclination attitude factors of knowledge sharing behavior have two independent variables, which are emotional attitude and instrumental attitude. Self-efficacy, outcome expectancy and intention are mutually influenced and could be regarded a combination. Conceptual model is as follow <Figure 1>.
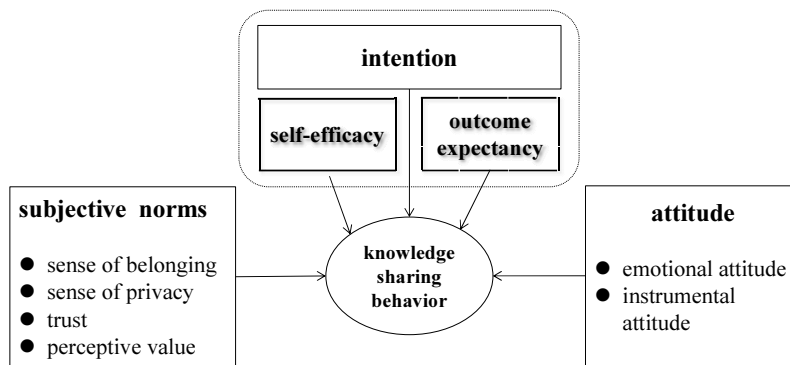
<Figure 1> Knowledge Sharing Conceptual Model

Through the study of causal variables, several hypothesis could be organized is as follows :

H1: The subjective norms have positive influence on the knowledge sharing behavior.

Many users mistrust sites because they feel that their personal privacy will be leaked on the website. Sense of privacy is the degree of users' personal privacy being protected by site. If some knowledge sharing behaviors of site attract users, users can produce a sense of belonging to the site, which is also an important influence factor of knowledge sharing behavior. Blackwell argues that perceived value is subjective feeling of users, mainly decided by the difference between perceived benefit gains and losses. In addition, when users log in web site for perceived value or perceived value reaches the expected value, they will trust and be satisfactory, and then resulting knowledge sharing intention as well as promoting the knowledge sharing behavior.

A high level of trust helps to facilitate knowledge sharing. If employees have low trust, they will be uncertain with the outcome of sharing. The tendency of concealing their knowledge is higher when the trust is low; therefore, trust building in the workplace

is a necessary for effective knowledge sharing (Sathitsemakul et al., 2013). Trust is considered a crucial pillar which holds the organization intact. Trust is also explained as the people's belief and faith that they will act in a positive way (Mayer et al., 1995). Trust in the organization builds cooperation among employees and management (Morgan and Hunt, 1994). Trust to be fruitful in organizations it must be present at all levels of management. The key factors that can build mutual trust for an organization's employees are communication and knowledge sharing (Mayer et al., 1995). "Perceived value" is an important internet marketing concept. It lies at the heart of marketing and deals solely with the user's perception of a service. Perceived value is a consolidated measure because it takes into account subjective perceptions with limits placed on it by service and other objective behavior (Johnson, 2015). As subjective norms contains four categories, the above hypothesis could be further divided into the follows,

H1-1 : Sense of belonging has positive influence on knowledge sharing behavior.
H1-2 : Sense of privacy has positive influence on knowledge sharing behavior.

H1-3 : Trust has positive influence on knowledge sharing Behavior.

H1-4 : Perception value has positive influence on knowledge sharing behavior.

H2: Inclination attitude has positive influence on knowledge sharing behavior.

The orientation attitude of knowledge sharing behavior includes emotional attitude and instrumental attitude. We adopt a relatively broad definition of the term affect which includes both, emotions as emotional states and attitudes as emotional dispositions (Clore and Gasper, 2000). Affect thus encompasses immediate experiences of feelings and emotions, the associated channels of mental processing, and the resulting attitudes towards objects. The opposite term to affect is cognition, which comprises the reason-based evaluation of situations and objects. Psychologists and neuroscientists emphasize the outstanding role of affect in information processing and decision making (Damasio, 1994; Ekman and Davidson, 1994; Frijda, 1986; LeDoux, 1996). The way affect operates in this context can be best described by an affect heuristic, which maintains that people form a global perception of an object based on their emotional attitude and derive judgments and expectations about this object from this perception (Finucaneet et al., 2000; Slovicet et al., 2004). They argue that affect influences all stages of information processing and decision making, partly without conscious awareness of this influence.

In this paper, emotional attitude is defined as to a kind of attitude and behavior of mind, from the perceptual, that enables people to hold particular social matters whether meet the demands and the social requirements, while instrumental attitude, from a rational attitude, determine that whether the specific things are beneficial to the main body. As inclination attitude contains two categories, the above hypothesis could be further divided into the follows;

H2-1: Emotional attitude has positive influence on knowledge sharing behavior.

*H2-2: Instrumental attitude has positive influence on knowledge sharing behavior.*

H3: Knowledge sharing intention has positive influence on knowledge sharing behavior.

In recent years, researchers have started to use theories in social psychology to understand psychological motivations associated with individual knowledge sharing behavior. TRA has been employed by many researchers to examine knowledge sharing behavior (Bock and Kim, 2002; Bock et al., 2005; Ding, 2009; So and Bolloju, 2005).

TRA suggests that a person's behavior is determined by his/her intention to perform the behavior, which in turn is determined by the person's attitude towards and subjective norm regarding the behavior. One assumption underlying TRA is that most social related actions are under volitional control (Ajzen and Fishbein, 1980). Volitional control means that with relevant intention, an individual is able to feel free to choose whether or not to act in a certain way (Hansen and Avital, 2005).

H4: Self-efficacy has positive influence on knowledge sharing behavior.

Self-efficacy is the belief of individuals in their capability to help solve problems or improve work efficiency in the work place (Constant et al., 1996; Hargadon, 1998). They suggested that the self-efficacy influences knowledge sharing behavior. When employees believe that sharing their knowledge can contribute to organization performance, they will have
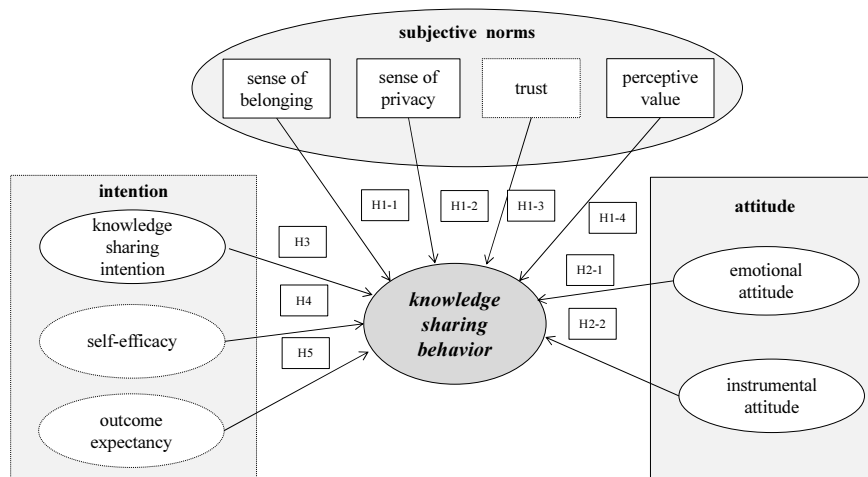
<Figure 2> Hypothesized Relationships of Research Model

higher positive attitudes toward knowledge sharing and will be more willing to share (Luthans, 2003). Self-efficacy is proposed by Bandura, a famous American Psychologist. Self-efficacy is the judgment, belief, or feelings of capability which are needed by individuals to complete an activity at a certain level. It is associated with one's personal ability level, but does not represent real ability level. Self-efficacy can decide people's choice of behavior tasks and degree of persistence and efforts to this task. At the same time, it also influences people's thinking mode as well as the emotional response mode. So in this article self-efficacy is another important factor of users' knowledge sharing behavior.

H5: Outcome expectancy has positive influence on knowledge sharing behavior.

Outcome expectancies are measures of the extent to which one sees causal relationship between one's behavior and the positive or negative outcome that one expects, goal-setting studies that have included measures of outcome expectancies have typically found non-significant results (Frayne and Latham, 1990).

The large number of investigation affect the expectancy of outcome, among the much of analysis people have different thought patterns, which caused impact result correctly. Sina Weibo knowledge sharing behavior is a kind of interactive behavior. When people expect the disadvantages of such actions, they will stop proceeding, otherwise, continue. So, in this paper, outcome expectancy will also be an important factor in the knowledge sharing behavior.

The hypothesized relationships were identified as in <Figure 2>.

Ⅳ. Methodology and Data Analysis

4.1. Research Method

We took an online questionnaire survey in the form of 5 point Likert scale among Sina Weibo users. Out of 180 questionnaires, 150 valid questionnaires were received, which reached the standard of sam-

<Table 1> Demographic Information of Respondents

Variable	Categories	Number of cases	Frequency(%)
Gender	Female	92	61.3
	Male	58	38.7
Age	<20	22	14.7
	21-30	87	58.0
	31-40	32	21.3
	41-50	4	2.7
	>51	5	3.3
Education	high school	13	8.7
	college	46	30.7
	university	71	47.3
	postgraduate	18	12.0
	missing	2	1.3
Join Years	<1 years	7	4.7
	1-2 years	71	47.3
	2-4 years	17	11.3
	>4 years	55	36.7

pling amount. The descriptive statistical analysis was carried out on the sample. Through effective questionnaire data analysis, we can work out the main method of knowledge sharing behavior among all users <Table 1>.

In this study, the data was firstly collected and then inputted in Statistical Package for the Social Sciences (SPSS)19.0 program in order to test the hypotheses. Firstly, sample analysis is carried out. After that, factor analysis and reliability analysis were operated to evaluate the reliability of the measures. Subsequently, correlation between each dimension was analyzed to make clear the relations among variables. Finally, regression analysis was implemented for testing the hypotheses.

It can be observed from the statistical data below, female accounted for more than a half into the survey data. And they are mainly aged between 20 and 30, and are mainly college students. Most of them have been the members of Sina Weibo for more than 2 years.

The measured variables are sense of belonging, trust, perceived value, emotional attitude, instrumental attitude, self-efficacy, outcome expect-

ancy, knowledge sharing intention, knowledge shar-ing behavior.

4.2. Measurement Model Assessment

When conducting empirical studies, one of the researcher's primary goals is to reduce inaccuracies in measurement. In assessing the degree of error for any measure, the researcher must address both reliability and validity of the measures (Hair et al., 1998). Thus, this study first conducted reliability test-ing and a validity testing to examine the reliability and validity of the multi item measured variables *(sense of belonging, trust, perceived value, emotional attitude, instrumental attitude, self-efficacy, outcome expectancy, knowledge sharing intention, knowledge sharing behavior)* which constitute the research model. The above methodology would be assessed in the following aspects.

4.2.1. Reliability Analysis

Measured data might have lots of measurement errors. The measurement errors could be divided into three categories, which are measurement error caused by the researcher's wrong measures, measure-ment error resulted from respondents' bias and char-acters, and measurement errors brought by environ-ment situations. This study has evaluated its reliability through seeking these errors in order to increase the validity of the research (Hair et al., 1998).

There are several methods could be used to evaluate the reliability of a measurement. Cronbach's alpha coefficient is one important index to employ. An alpha value of 0.5 could be regarded as to be reliable. In social sciences, if the Cronbach's alpha is bigger than 0.7, the measurement would get great reliability. The results of the reliability test show that 10 test variables was high (0.863, item: 32), which could be shown as follows.

<Table 2> Scale Reliability

		Variable		Cronbach's Alpha	No. of Items
Independent Variable	Subjective norms	Sense of belonging	SOB	.818	4
		Sense of privacy	SOP	.796	3
		Trust	TR	.721	3
		Perceived value	PV	.862	4
	Inclination attitude	Emotional attitude	EA	.863	3
		Instrumental attitude	IA	.751	4
	intention	Self-efficacy	SE	.765	3
		Outcome expectancy	OE	.810	3
		Knowledge sharing intention	KSI	.762	3
Dependent Variable		Knowledge sharing behavior	KSB	.855	2

4.2.2. Factor Analysis

The factor analysis could be divided into three categories, which are the validity of subjective norms, the validity of attitude, and the validity of intention. The results show that all of the factors' loading values for the variables were greater than 0.5, and then eight values were greater than 1 (based on the results of the following tables). The validity of every variable is high.

The contents of key factors in subjective norms are sense of belonging, sense of privacy, trust and Perceived value. In this aspect, 4 questions are about sense of belonging, 3 questions concern Sense of privacy, 3 questions are related to trust, and 3 questions indicate the perceived value. Reducing some

questions from this process, the following <Table 3> shows the results for factors' analysis. Through analysis, the values of the variables are valid.

The contents of key factors in attitude are emotional attitude and instrumental attitude. For the attitude, 3 questions are about emotional attitude and 4 questions are related to instrumental attitude. After removing some of the questions from this process, the following <Table 4> shows the results of factors analysis, which shows the validity of the variables.

In the intention dimension there are 3 questions on self-efficacy, 3 questions on outcome expectancy and 3 questions on knowledge sharing intention fit to implement factor analysis. After removing some of those questions from this process, the following <Table 5> shows that all the items fit have been

<Table 3> Validity of Subjective Norms's Variables

Constructs	1	2	3	4
PV 1	.858	.003	.063	.072
PV 2	.844	.063	.126	.105
PV 3	.832	.037	.122	.097
PV 4	.781	-.066	.120	.058
SOB 2	.016	.889	.112	.241
SOB 1	-.049	.868	.186	.200
SOB 3	.037	.851	.052	-.016
SOP 2	.139	.092	.901	.086
SOP 1	.151	.296	.789	.202
SOP 3	.207	-.147	.621	.332
TR 2	.051	.018	.182	.800
TR 1	.136	.203	-.036	.792
TR 3	.092	.111	.152	.717

<Table 4> Validity of Attitude's Variables

Constructs	1	2
AA 3	.830	-.176
AA 1	.736	-.521
AA 2	.706	-.514
IA 2	.032	.736
IA 1	.017	.666

<Table 5> Validity of Outcome Expectancy's Variables

Constructs	1	2	3
OE 3	.860	.145	.087
OE 1	.809	.307	.128
OE 2	.798	.252	.150
KSI 1	.173	.831	.130
KSI 2	.281	.782	-.014
KSI 3	.469	.707	.117
SE 2	.134	.084	.914
SE 1	.137	.047	.905

analyzed. As show in the result variable, the validity is very high.

4.2.3. Correlations Analysis

The value to measure correlation is correlation coefficient, the numerical value of correlation coefficient is between -1 to +1. When the value is above 0.8 between two variables, they could be regarded as collinearity. The value between 0.7 and 0.8 also shows a high correlation. When the values are between 0.5 ~ 0.6, a moderate correlation is disclosed, 0.4 and below uncovers weak correlation. Direction is indicated by the sign of the person value: - or +. The value is bigger than 0 when the two variable move in the same direction. It has opposite meanings as being reversed.

The step is to investigate the correlation among 10 major variables, which are sense of belonging (SOB), sense of privacy (SOP), trust (TR), perceived value (PV), emotional attitude (EA), instrumental attitude (IA), self-efficacy (SE), outcome expectancy

<Table 6> Correlations Analysis

	SOB	SOP	TR	EA	IA	PV	SE	OE	KSI	KSB
SOB	1	.350**	.275**	0.02	.214*	0.004	.309**	.252*	.306**	0.182
SOP		1	.284**	0.192	.336**	.357**	.343**	.383**	.419**	.267**
TR			1	0.14	0.189	0.124	.239*	.699**	.497**	.480**
EA				1	.526**	.573**	.245*	0.192	.243*	0.175
IA					1	.617**	.365**	.214*	.281**	.280**
PV						1	.311**	0.149	0.156	.255*
SE							1	.353**	.367**	0.194
OE								1	.629**	.424**
KSI									1	.364**
KSB										1

Note: ** Correlation is significant at the 0.01 level (2-tailed).
    * Correlation is significant at the 0.05 level (2-tailed).
    Sample size N=150

(OE), knowledge sharing intention (KSI) and knowledge sharing behavior (KSB). Pearson correlation analysis was used to test the correlations of these variables. The results of the relationship between different variables are as follows.

4.3. Hypotheses Test

Hypotheses are to the three factors of subjective norms, attitude and intention which influence the knowledge sharing behavior. To investigate the 5 hypotheses, hierarchical regression analysis was adopted. Specifically in model 1, only subjective norms is included, producing its R-square of 0.287($p < 0.001$, see <Table 7>). Following that, attitude factors are added in model 2, wherein the R-square has increased significantly (0.328, $p < 0.001$). Finally, intention factors were analyzed in model

3, and R-Square increased more significantly (0.357, $p < 0.001$). After estimation of a variance inflation factors (VIF) for each model, the collinearity is examined examine it was found that they were below harmful levels.

In model 1, subjective norms were tested to show whether the reduce of knowledge sharing behavior was affected. According to the analysis result, Regression analysis yielded R square = 0.287, F = 14.598 ($p < 0.01$), sense of belonging's β value with 0.5% level of significance is 0.229, thus a positive(+) effect on knowledge sharing behavior. At the same time, perceived value's β value with 0.5% level of significance is 0.372, thus a positive(+) effect on knowledge sharing behavior. Therefore, sense of belonging and perceived value are positively affected by the knowledge sharing behavior. H1-1 and H1-4 are supported. And we have noticed that sense of

<Table 7> Results of Hierarchical Regression Analysis

Independent variable			Model 1			Model 2			Model 3		
			S.E	Beta	t(p)	S.E	Beta	t(p)	S.E	Beta	t(p)
Subjective norms	Sense of belonging	SOB	.070	.281	4.003 (***)	.088	.229	2.612 (**)	.089	.238	2.667 (***)
	Sense of privacy	SOP	.070	.096	1.368	.070	.074	1.060	.071	.044	.618
	Trust	TR	.070	.197	2.816	.074	.125	1.700	.119	.101	.845
	Perceived value	PV	.070	.400	5.707 (***)	.070	.372	5.3 (***)	.098	.244	2.49 (*)
Inclination attitude	Emotional attitude	EA				.082	-.050	-.607	.082	-.086	-1.049
	Instrumental attitude	IA				.083	.219	2.653 (**)	.083	.193	2.333 (*)
intention	Self-efficacy	SE							.096	.150	1.556
	Outcome expectancy	OE							.082	.166	2.024 (*)
	Knowledge sharing intention	KSI							.116	-.014	-.122
R²			0.287(0.267)			0.328(0.3)			0.357(0.316)		
F(p)			14.598(***)			11.652(***)			8.632(***)		

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

<Table 8> Summery of Hpotheses Testing Results

	Hypotheses	Results
H1-1	Sense of belonging has positive influence on knowledge sharing behavior	**Supported**
H1-2	Sense of privacy has positive influence on knowledge sharing behavior	Not Supported
H1-3	Trust has positive influence on knowledge sharing behavior	Not Supported
H1-4	Perception value has positive influence on knowledge sharing behavior	**Supported**
H2-1	Emotional attitude has positive influence on knowledge sharing behavior	Not Supported
H2-2	Instrumental attitude has positive influence on knowledge sharing behavior	**Supported**
H3	knowledge sharing Intention has positive influence on knowledge sharing behavior	Not Supported
H4	Self-efficacy has positive influence on knowledge sharing behavior	**Supported**
H5	Outcome expectancy has positive influence on knowledge sharing behavior	Not Supported

belonging and perceived value contain positive (+) effect on knowledge sharing behavior.

In model 2, we mainly test the attitude (emotional attitude and instrumental attitude) to indicate the

effect on the knowledge sharing behavior. According to the analysis result, instrumental attitude's β value with 0.5% level of significance is 0.219, thus a positive (+) effect on knowledge sharing behavior. Regression analysis yielded R square = 0.328, F = 11.652 (p < 0.001). Therefore, instrumental attitude affects the knowledge sharing behavior. H2-2 is supported.

In model 3, the intention context factors have been tested them to evaluate the effect thereof on the knowledge sharing behavior. According to the analysis result, regression analysis yielded R square = 0.357, F = 8.632 (p < 0.001), outcome expectancy's β value with 0.5% level of significance is 0.166, thus a positive(+) effect on knowledge sharing behavior. Plus, a positive (+) effect is on knowledge sharing behavior. H4 is supported.

At last, the results of the total hypotheses test are showed in <Table 8> as below:

From the result in the table 8, we can see that H1-2 is not supported. It means that sense of privacy does not have influence on knowledge sharing behavior, This result can be explain that the user may be quite trust on the provider, and one of the reasons is that Sina Weibo is the most famous brand in China for sharing information. So, the users does not concern more about this one. In the next variable H1-3, we also get the same result that trust do not have influence on the knowledge sharing behavior. This result confirms that the users do not concentrate on the risk from their sharing on this website environment. H3, knowledge sharing Intention variables and H5, outcome expectancy, they both do not influence on the knowledge sharing behavior. These results suggest that the user is more rational user than emotional user, and it may come from their beliefs on the provider of this website system.

V. Conclusion

For the SNS site, the sense of belonging is produced by the recognition of the web site. If users' sense of belonging to a certain website is strong, they will choose it, or even invite their friends to join. In order to improve the sense of belonging, site builders can establish friend circle or develop group function, such as interest groups, alumni groups, celebrity home page. All of these can enhance users' sense of belonging to website. The biggest shortcoming of SNS site is leaking users' privacy and many users are unsatisfied with privacy protection. One of the characteristics of the SNS site is real-name registration, which means the user must fill in his name, gender, age, education level and upload the real photos when they register. And once the site is attacked by hackers or Trojan virus, then the user's private information is like to be compromised. Some SNS site often releases some advertisement information, which cause users to mistrust. SNS site allows users to choose who can see their shared knowledge and set their close friends. Thus it will increase perceive privacy of SNS site.

When users are applying SNS site for account, adding with the function of mobile phone binding can brighten the security of users' account. Site can imitate Tencent QQ once users log in SNS site, the site, at the same time, sends an email or text message to users, in order to inform the IP address and prevent user accounts being stolen. These methods can increase users' trust to SNS site, which can in addition take a great role in promoting the knowledge sharing behavior of users in SNS website. In order to attract users and motivate them to have more active inclination attitude, Website's own reputation and social contract function should be enhanced. Thus users can be more positive on knowledge sharing behavior

of SNS site. The development of the SNS site demands their own core competitiveness. Over-commercialized site may ignore its function as a social contact tool. The core location of the SNS site should be social contact tools to keep viscosity of users, which can make users feel that it is helpful and valuable to themselves to share knowledge in SNS site.

There is a close relationship between self-efficacy and SNS site with knowledge sharing behavior. Once users think they do not have too much self-efficacy, they won't be willing to share their own knowledge with other users. Users' self-efficacy depends on the degree of understanding of the site and their own knowledge. Social network site can build a website page with detailed introduction, which makes users understand better, improve self-efficacy and be willing to share knowledge. Good outcome expectancy can promote users to focus on a series of knowledge sharing. SNS site can supply some encouragement and reward, For example, users' identity can be upgraded after sharing the knowledge and certain privileges and services can be enjoyed after promoting level. The core location of the SNS site should be social contact tools to keep viscosity of users, which can make users feel that it is helpful and valuable to themselves to share knowledge in SNS site. Good

users' perception value can promote users to focus on a series of knowledge sharing. SNS site can supply some encouragements and rewards. For instance, users' identity can be upgraded after sharing the knowledge and certain privileges and services can be enjoyed after promoting level.

Based on the detailed introduction of knowledge sharing and SNS site, this paper has established the theoretical analysis model of knowledge sharing in SNS site, has analyzed the influence of the factors of the knowledge sharing in SNS site, and has put forward the corresponding solutions aiming at the effects of associated factors. In terms of variable selection, this paper does not consider a few factors such as social environment and cultural differences. The author hopes that other researchers could take this article as a reference to put forward new theoretical models and research results in the future. The next era is an era of knowledge, with the quick development of Internet and the modification through Internet age, SNS site will meet new challenges and opportunities. Beyond a reasonable doubt, it will be particularly necessary to share resources and acknowledges scientifically and effectively in order to innovate business models of SNS site in the future.

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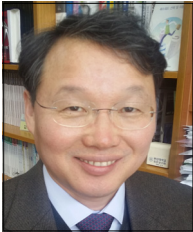
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◆ About the Authors ◆

Jinku Lu

Jinku Lu is a Ph.D. Candidate of Management Information Systems at College of Business Administration, Pusan National University in Korea. His current research interests are knowledge management, social media, electronic commerce and project management.

Jongki Kim

Jongki Kim is a Professor of MIS at Department of Business Administration, Pusan National University. He received Ph.D. in MIS from Mississippi State University, Master of Business Administration from Arkansas State University, and Bachelor degree in Business Administration from the Pusan National University. His current research interests focus on information systems security, project management, and technology management.