

# 수정된 원형/행동경향 모형을 통한 SNS이용자들의 상호작용성이 이용저항에 미치는 영향\*

Effects of SNS Users' Perceived Interactivity on Using Reluctant Intention Using Modified  
Prototype/willingness Model

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## Contents

I. Introduction  
II. Theoretical Background  
III. Research model and Hypotheses  
IV. Empirical Analysis

V. Discussion and Conclusion  
References  
국문초록

## Abstract

This study focused on causes of use reluctant intention because closed SNS was more active than open SNS was despite tremendous growth of SNS to have negative influence upon not only SNS contents suppliers but also marketing business using SNS.

The survey were conducted a total of 205 participants with adult over colleague student, 197 copies that excluded questionnaire with unfaithful answer were used in the analysis, and we used path analysis of

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structural equation modeling.

The results of modified path model showed that interactivity was influenced by value, and then affecting “trust → satisfaction → using reluctant intention” path and “satisfaction → using reluctant intention” path. These result reflected that interactivity have a double-edged sword and value is very important standard to make a positive of negative role of interactivity.

These results suggested that interactivity was found to have influence upon not only behavioral willingness that took actions depending upon either improvisation or situation but also behavioral intention path that thought and took actions in reasonable way. The interactivity had double-edged sword to help develop SNS and to produce negative results.

**Key Words** : SNS, Perceived Interactivity, Using Reluctant Intention, Modified Prototype/behavioral willingness Model

## I. Introduction

The social networking sites(SNS) with the highest grow up rate and expansion among communication media recently grew up rapidly owing to development of Internet and mobile service. According to Yang & Kim(2013)<sup>1)</sup>, in July 2012, number of Facebook subscribers accounted for 7.17 million persons and number of twitter users did 6.42 million persons, and in January 2013, about 30 million subscribers were found to make use of Kakao Talk that was native SNS. SNS that was information technology representing web 2.0 paradigm of opening, participation and communication can make out personal profile online to share various kinds of information and to present his or her own ideas and communicate with another person(Choi et al, 2013)<sup>2)</sup>.

Cowen(2011)<sup>3)</sup> reported in his book “The Great Stagnation” that internet provides intellectual and/or emotional space free of charge to produce rich inner life of men that is like ‘opened

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1) Yang, Hoe-Chang and Kim, Jong-Lak, “The Influence of Perceived Characteristics of SNS, External Influence and Information Overload on SNS Satisfaction and Using Reluctant Intention: Mediating Effects of Self-esteem and Thought Suppression,” *International Journal of Information Processing and Management (IJIPM)*, Vol. 4, No.6, 2013, pp.19-30.

2) Choi, Moon-Hyoung, Park, Mi-Kyung, and Lee, Hong-Jae Relationship Analysis of Using SNS, Bridging Network, and Bonding Network. Paper presented at the spring meeting of the Korean Association For Public Administration, Seoul, Korea, 2013, pp.450-474.

3) Cowen, Tyler., *The Great Stagnation: How America Ate All the Low-Hanging Fruit of Modern History, Got Sick, and Will (Eventually) Feel Better*. A Penguin eSpecial from Dutton. Penguin. com, 2011.

canvas', and SNS makes voluntary participants collect and expand information simultaneously at once. In particular, users share information to communicate with another person and to join formation of social issues and to transfer human network of existing offline to online and to build up new human network with users having quite different background(Choi et al., 2013)<sup>4</sup>). The interactivity has not only affirmative characteristics but also negative characteristics of SNS. Because interactivity as shown in the definition of Deighton (1996)<sup>5</sup>, an affirmative interactivity builds up and maintains personal connections and helps communicate actively to join actively and to interpret in different way from users' intention and produce negative interactivity such as malicious messages. Negative interactivity and exposure of the communication are likely to have either affirmative or negative influence upon interactivity. Exposure at SNS means that various kinds of personal information to everyone at open space by the ones who are connected on social network(Lee & Lee, 2012)<sup>6</sup>). Because of this characteristics, SNS users can get various kinds of information in which they are interested. However, there should be noted that users are forced to disclose their information to many and unspecified persons unwanted to leak personal information and to produce negative phenomenon frequently. This is because some of users who want to disclose various kinds of information of personal lives to many unspecified persons or think of the exposure in affirmative way think of affirmativeness of the exposure. But, many of common users may bear considerable burden by disclosure of personal information.

These days, users of closed SNS such as Naver Band and Kakao group instead of open SNS increased to prevent negative characteristics of interactivity and exposure. Expansion of derivatives and/or expandable product such as closed SNS is much likely to give burden to enterprises from point of view of SNS marketing. Open SNS discloses an enterprise's products, brand and services to many unspecified persons, while closed SNS has no room of penetration of the advertisement. Almost no empirical analysis showed that SNS marketing had affirmative influence upon outcome of the enterprise, so that many enterprises did not admit of important means of SNS concerning performance improvement to decrease investment desire and to deteriorate SNS development. But, SNS is needed to communicate between individuals and between enterprises and customers, and it is much likely to function affirmative elements from various kinds of points of views.

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4) Choi et al., *ibid.*

5) Deighton, John. "The Future of Interactive Marketing," *Harvard Business Review*, Vol 74, No. 6, 1996, pp.151-161.

6) Lee, Jeom-Soo., and Lee, Young-Kon, "A Study on the Effects of Social Network Service Characteristics on Customers' Loyalty," *Korea Research Academy of Distribution and Management Review*, Vol, 15. No. 3, 2012, pp.49-65.

Nonetheless, users preferred closed SNS to open SNS to have negative influence upon SNS development.

In this study, we were looking for the cause of using reluctance of open SNS users. In particular, the study investigated effects of interactivity perceived by SNS users upon using reluctance intention by using prototype/behavioral willingness model. The prototype/behavioral willingness model for explanation of health risk behavior was based on the assumption that men did not think and take actions in reasonable way and were inclined to take extemporaneous actions and take actions against situation (Gibbons & Gerrard, 1995)<sup>7)</sup>. Keresztes et al. (2009)<sup>8)</sup> reported that the model suggests that favorable prototypes of people who take part in certain health-risk behaviors are linked with the willingness to engage in those unhealthy behaviors when the opportunity arises. The hypothesized relation between adolescents' prototypes and their behavioral willingness has been demonstrated in a number of studies on health-risk behaviors suggested by Blanton et al. (1997)<sup>9)</sup> and Gibbons & Gerrard (1995)<sup>10)</sup>.

So, the study set interactivity by prototype that was good impression on images kept, users' trust by behavioral willingness, technical norm by users' value, and did satisfaction by behavioral intention to investigate effects of prototype/behavioral willingness model upon using reluctance. As pointed out earlier, interactivity of SNS has double-sided as double-edged sword, understanding of the characteristics of the double-sidedness will be able to give SNS using ways of affirmative related enterprise as well as users. Also, it will be able to provide many clues through the causal relationship between the recognition of the value associated with the use of SNS users and trust and satisfaction with SNS would give conditions of affirmative SNS use at personal level. In addition, enterprises supplying SNS contents were likely to be given various kinds of conditions for development of SNS, and enterprises that made use of marketing strategies by SNS were likely to give conditions of effective SNS marketing.

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7) Gibbons, Frederick X., and M. Gerrard, "Predicting Young Adults' Health-risk Behavior," *Journal of Personality and Social Psychology*, Vol. 69, No. 3, 1995, pp.505 - 517.

8) Keresztes, N., B. F. Piko., F. X. Gibbons and C. D. Spielberger, "Do high- and low- active adolescents have different prototypes of physically active peers?" *The Psychological Record*, Vol. 59, No. 1, 2009, pp.39-52.

9) Blanton, H., F. X. Gibbons., M. Gerrard, K. J. Conger., and G. E. Smith, "The role of family and peers in the development of prototypes associated with substance use," *Journal of Family Psychology*, Vol. 11, No. 3, 1997, pp.271 - 288.

10) Gibbons, F. X., & Gerrard, M. op. cit.

## II. Theoretical Background

As we mentioned earlier, this study under consideration deals especially with the latter and makes use of the Prototype/behavioral Willingness Model of decision making modified dual-processing model of health behavior, and the basic assumption of the model is that much initial adolescent risk behavior, although volitional, is not intended or planned; rather, it is a response to circumstances that are risk conducive developed by Gibbons & Gerrard(1995)<sup>11)</sup>. Matthiessen(2010)<sup>12)</sup> reported that the Prototype/ behavioral willingness Model is based on the assumption that people hold distinct images about others who engage in a certain behavior, and that these prototypes are liked or disliked and have unconscious influences on own behavior with social comparison processes as a mediator. Based on this model, SNS users'unplanned decisions to start, continue or stop behaviors that can put their interactivity at risk, like using SNS. Therefore, the prototype could forecast behavior that the model assumed. Individuals had good impression on images of the ones who took specific actions to forecast behavior by prototype significantly at many precedent studies such as Chassin et al.(1981)<sup>13)</sup> and Gibbons & Gerrard(1995)<sup>14)</sup>. The study adopted interactivity that was an important forecast factor of using reluctance. In other words, SNS users' impression on SNS interactivity was likely to have influence upon using reluctance. The model has another important element of behavioral willingness. Impression upon prototype of specific behavior has influence upon behavioral willingness that forecasts behavior again(Gibbons et al., 2004)<sup>15)</sup>. In this study, trust upon SNS could reflect behavioral willingness that took action according to the situation. So, despite low satisfaction with SNS, affirmative trust on SNS made by another person at interactivity might have influence upon use of SNS. With support of prediction of the model, prototype/behavioral willingness model made correction to have two kinds of paths. Specifically, the Prototype/behavioral willingness Model is related to dual-

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11) Gibbons, F. X., & Gerrard, M. op. cit.

12) Matthiessen, J. M. (2010). *The relation between the ideal of beauty of Mexican VW-employees and healthy and unhealthy food consumption*. unpublished Student Theses, University of Twente, Netherlands.

13) Chassin, L., C. C. Presson., S. J. Sherman., E. Corty., and R. Olshavsky, "Self-images and cigarette smoking in adolescence. *Personality and Social Psychology Bulletin*, Vol. 7, No. 4, 1981, pp.670-676.

14) Gibbons, F. X., & Gerrard, M. op. cit.

15) Gibbons, F. X., M. Gerrard., L. S. V. Lune., T. A. Wills., G. Brody., and R. D. Conger, "Context and cognitions: Environmental risk, social influence, and adolescent substance use," *Personality and Social Psychology Bulletin*, Vol. 30, No. 8, 2004, pp.1048-1061.

processing models such as the reasoned path and social reaction path. Reasoned path includes many of the concepts of the theories of reasoned action and planned behavior which involves more analytic processing, and the social reaction path, which is image-based and involves more heuristic processing, in that it is based on the assumption that there are two types of decision making involved in health behavior(Gibbons et al., 2004)<sup>16)</sup>. In other words, the dual process that includes path of reasonable thinking and taking action can exist together with path of behavioral willingness that takes actions depending upon initial situation. The technical(regulatory) norm that was used to investigate influence of neighboring persons was based on the assumption that one was likely to take action when thinking of many of neighboring persons doing target behavior. Therefore, SNS users' cognition on the values that included social comparison was expected to be technical norm in this study. The behavioral intention of the model reflected psychological factors that one thought reasonably to take actions, and satisfaction with SNS was likely to reflect all of the factors. Variables of the model were described below.

Many researchers gave a definition for interactivity. For example, Wiener (1950)<sup>17)</sup> argued that interactivity is a notion of feedback: a method of controlling a system by reinserting into it the results of its past performance. Steuer(1992)<sup>18)</sup> reported that interactivity is the extent to which users can modify the form and content of a mediated environment in real-time. Also, Fortin(1997)<sup>19)</sup> defined that interactivity is the degree to which a communication system can allow one or more end users to communicate alternatively as senders or receivers with one or many other users or communication devices, either in real time(as in video teleconferencing) or on a store-and-forward basis(as with electronic mail), or to seek and gain access to information on an on-demand basis where the content, timing and sequence of the communication is under control of the end user, as opposed to a broadcast basis. According to Deighton(1996)<sup>20)</sup>, the interactivity collects and memorizes individual's characteristics and reactions and takes actions again in accordance with individual's characteristics by using information collected and memorized at communication process that is a series of message exchange. Also, Liu & Shrum(2002)<sup>21)</sup> reported

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16) Gibbons et al. op. cit.

17) Wiener, Norbert., *The Human Use of Human Beings: Cybernetics and Society*, New York, NY: Houghton Mifflin, 1950.

18) Steuer, Jonathan., "Defining Virtual Reality: Dimensions Determining Telepresence," *Journal of Communication*, Vol. 42, No.4, 1992, pp.73-93.

19) Fortin, David R., *The Impact of Interactivity on Advertising Effectiveness in the New Media*. unpublished dissertation. College of Business Administration, The University of Rhode Island, Kingston, R.I. 1997.

20) Deighton, op. cit.

that two or more of persons react by two media at interactivity to have influence at the same time. SNS that is based on either computer or mobile environment can produce networks between users and communicate regardless of time and place to promote communication and participation(Cho & Kang, 2007)<sup>22)</sup>. Nonetheless, active communication and participation can be negative. Because affirmative interactivity can reflect expectation from personal point of view, but communication model proposed by Weiner(1948)<sup>23)</sup> showed that inconsistency with one's own expectation at feedback may give serious pressure, and to produce various kinds of noises at communication process and to create negative interactivity.

A study on values suggested by Zeithaml(1988)<sup>24)</sup>, value in the area of marketing research described four factors, that is to say, prices, compensation for the supply, offset between product quality perceived and price, and overall assessment on subjective object considering evaluation standards(Cho & Kang, 2007)<sup>25)</sup>. Haksever et al.(2004)<sup>26)</sup> reported that the value was defined to satisfy customers' desire and to provide customers with products and/or services conveniently. And the social value suggested by Sheth et al.(1991)<sup>27)</sup> of consumers' values composed extensively is defined to be able to elevate consumers' values as well as social recognition, and emotional value is defined to be value that service creates movement and has influence upon emotional status(Kim et al., 2012)<sup>28)</sup>.

Lyu & Yang(2013)<sup>29)</sup> explained that the trust was said to be essential to form healthy nature(Erikson, 1963<sup>30)</sup>; Hazen & Shaver, 1994<sup>31)</sup>), and to be base of human relation(Rempel et

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- 21) Liu, Y., and L. J. Shrum, "What is interactivity and is it always such a good thing? Implications of definition, person, and situation for the influence of interactivity on advertising effectiveness," *Journal of advertising*, Vol. 31, No. 4, 2002, pp.53-64.
- 22) Cho, Chul-Ho & Kang, Byung-Suh, "An Affection of Blog Service Quality on Service Value and Customer Satisfaction: Focusing on Cyworld," *Journal of Korean Society for Quality Management*, Vol. 35, No. 1, 2007, pp.35-51.
- 23) Wiener, Norbert., *Cybernetics*. New York: Wiley and Sons. 1948.
- 24) Zeithaml, Valerie. A., "Consumer Perceptions of Price, Quality, and Value: a Means-end Model and Synthesis of Evidence," *The Journal of Marketing*, Vol. 52, No. 3, 1988, pp.2-22.
- 25) Cho & Kang, op. cit.
- 26) Haksever, C., R. Chaganti., and R. G. Cook, "A Model of Value Creation: Strategic View," *Journal of Business Ethics*, Vol. 49, No. 3, 2004, pp.295-307.
- 27) Sheth, J. N., B. I. Newman., and B. L. Gross, "Why We Buy What We Buy: A Theory of Consumption Values," *Journal of Business Research*, Vol. 22, No. 2, 1991, pp.159-170.
- 28) Kim, Ki-Yeon., Park, Kyung-Soo., Uh, Soo-Kyun., and Ju, Yoon-Hwnag, "A Study on the Impact of Perceived Regulation for Sales at Super Supermarket and Discount Store on Consumers' Shopping Value and Subjective well-being," Paper presented at the meeting of 2012 Winter International Conference of KODISA, Bongdam, Korea, 2012, pp.101-106.
- 29) Lyu, Myung-Keun, and Yang, Hoe-Chang, "The Effect of Trust and Justice on Relation Satisfaction and Long-term Commitment in Franchise Business. *Journal of Distribution Science*, Vol. 11, No. 1, 2013, pp.25-34.
- 30) Erikson, Erik. H., *Childhood and society(2nd ed.)*. New York: Norton, 1963.

al., 1985)<sup>32)</sup> and to be foundation of mutual cooperation (Barnard, 1938)<sup>33)</sup>, and to be fundamental base for stabilization of social system and/or market(Arrow, 1974<sup>34)</sup>; Zucker, 1986<sup>35)</sup>). Rotter(1971)<sup>36)</sup> defined that the trust was said to be general expectation that the other party's sayings, promise and/or either verbal or literary description were reliable, and Hosmer(1995)<sup>37)</sup> defined that it was classified depending upon personal expectation, economic activity and human relations. The trust of personal expectation indicates "a person's optimistic expectation of outcome of an event"(Hosmer, 1995<sup>38)</sup>; Zand 1972<sup>39)</sup>), and trust of economic behavior does reliance upon the other party that a member expects of his or her good reputation(Hill, 1990<sup>40)</sup>; Williamson, 1985<sup>41)</sup>), and trust of human relations has added not only continuity but also relation orientation to the trust of personal expectation(Lewis & Weigert, 1985)<sup>42)</sup>. In particular, the trust of human relations has clarified not only subject but also object to put an emphasis upon trust subject's perception of characteristics of trust object(Lyu & Yang, 2013)<sup>43)</sup>. SNS users accept trust of the other party's behavior by themselves based on they would take important actions for trust subject regardless of trust object's monitoring, control ability and position, etc (Mayer et al., 1995)<sup>44)</sup>.

According to Sim & Moon(2012)<sup>45)</sup>, the users' satisfaction allows users to take positive reaction to enterprises' products and/or services to keep relations between enterprises and users and to have influence upon enterprise profits (Anderson, 1994<sup>46)</sup>; Bolton et al., 1998<sup>47)</sup>), and users'

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- 31) Hazen, C, and P. R. Shavor, "Attachment as an Organizational Framework for Research in Close Relationships," *Psychological Inquiry*, Vol. 5, No. 1, 1994, pp.1-22.
- 32) Rempel, J. K., J. G. Holmes., and M. P. Zanna, "Trust in close relationships," *Journal of Personality and Social Psychology*, Vol. 45, No. 1, 1985, pp.95-112.
- 33) Barnard, Chester. I., *The functions of executive*. Cambridge, MA: Harvard University Press. 1938.
- 34) Arrow, Kenneth. J. *The Limits of Organization*, New York: Norton, 1974.
- 35) Zucker, Lynne, "Production of Trust: Institutional Sources of Economic Structure, 1940-1920," *Research in Organizational Behavior*, Vol. 8, 1986, pp.53-111.
- 36) Rotter, Julian. B, "Generalized Expectancies for Interpretation Trust. *American psychologist*, Vol, 26, No. 5, 1971, pp.443-452.
- 37) Hosmer, Larue. T, "Trust: The Connecting Link between Organizational Theory and Philosophical Ethics. *Academy of Management Review*, Vol. 20, No. 2, 1995, pp.379-403.
- 38) Hosmer, *ibid*.
- 39) Zand, Dale. E, "Trust and managerial problem solving," *Administrative Science Quarterly*, Vo. 17, No. 2, 1972, pp.229-239.
- 40) Hill, Charles. W. L, "Cooperation, Opportunism, and the Invisible Hand: Implications for Transaction Cost Theory. *Academy of Management Review*, Vol. 15, No. 3, 1995, pp. 500-513.
- 41) Williamson, Oliver., *The economic institutions of capitalism*, New York: Free Press, 1985.
- 42) Lewis, J. David, and A. J. Weigert, "Trust as social reality," *Social Forces*, Vol. 63, No. 4, pp.967-985.
- 43) Lyu & Yang *op. cit*.
- 44) Mayer, Roger. C., J. H. Davis, and F. D. Schoorman, "An Integrative Model of Organizational Trust," *Academy of Management Review*, Vol. 20, No. 3, 1995, pp.709-734.
- 45) Sim, Sun-Hee, and Moon, Jae-Young, "A Study on Mobile SNS Attributes Effects on Information share, Relationship formation, and User satisfaction. *Journal of Korean Society for Quality Management*, Vol. 40, No. 1, 2012, pp.60-72.



satisfaction with information system plays an important role at success of the system under business environment as well as B2C environment(DeLone, 2003)<sup>48)</sup>. That is not susceptible to objective measurement of satisfaction associated with the use of SNS. However, SNS users are satisfied with the overall satisfaction, we expected that satisfaction can be adequately reflect and explained by the SNS associated with the use of the act. Therefore, additional used to determine will play an important role. So we introduced the SNS users'perceived interactivity on using reluctant intention using modified prototype/willingness model.

### III. Research model and Hypotheses

This study built up a model based on theoretical background of using reluctant of SNS as well as prototype/behavioral willingness model corrected (Gibbons et al., 2004)<sup>49)</sup> to verify causal relations. The behavioral willingness path that was a path of prototype/behavioral willingness corrected to take reaction to either improvisation or situation adopted prototype of interactivity behavioral willingness of the trust: And, behavioral intention path that is the second path to think and take actions in reasonable way adopted not only SNS users' values of technical norm but also SNS satisfaction of behavioral intention to investigate effects upon using reluctant of SNS. Therefore, we established the following hypotheses and research model.

Hypothesis 1. interactivity of SNS characteristics will be positive influence on SNS user's trust.

Hypothesis 2. interactivity of SNS characteristics will be positive influence on SNS user's satisfaction.

Hypothesis 3. Perceived SNS users'value will be positive influence on SNS users'trust.

Hypothesis 4. Perceived SNS users'value will be positive influence on SNS users'satisfaction.

46) Anderson, Robert. J., "Representations and Requirements: The Value of Ethnography in System Design," *Human-Computer Interaction*, Vol. 9, No. 2, 1994, pp.151-182.

47) Bolton, Gary. E., B. Greiner, and A. Ockenfels, "An Experimental Test of the Crowding out Hypothesis: The Nature of Beneficent Behavior," *Journal of Economic Behavior & Organization*, Vol. 37, No. 3, 1998. pp.315-331.

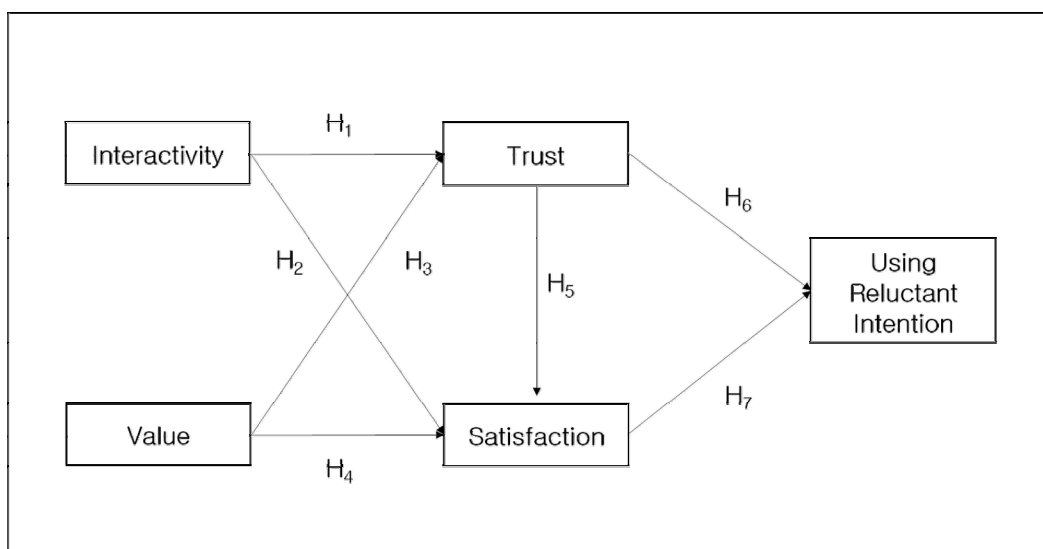
48) DeLone, William. H, "The DeLone and McLean Model of Information Systems Success: A Ten-Year Update," *Journal of Management Information Systems*, Vol. 19, No. 4, 2003, pp.9-30.

49) Gibbons et al. op. cit.

Hypothesis 5. Perceived SNS users' trust will be positive influence on SNS users' satisfaction.

Hypothesis 6. Perceived SNS users' trust will be negative influence on SNS users' using reluctant intention.

Hypothesis 7. SNS users' satisfaction will be negative influence on SNS users' using reluctant intention.



<Figure 1> Research model and hypotheses

## IV. Empirical Analysis

### 1. Data Collection

The survey were conducted a total of 205 participants with adult over colleague student, 197 copies that excluded questionnaire with unfaithful answer were used in the analysis.

Demographic characteristics of these participants consisted of 108 male(54.8%) and 89 female(45.2%). and 129 participants were unmarried(65.5%) and 68 participants were married(34.5%) in marital status. In the age distribution, 100 participants(50.7%) were 25 or below, 41 participants(20.8%) were the most

common 25 years old to 35 years old, 45 participants(22.8%) were the most common 35 years old to 40 years old, and 11 participants(5.7%) of more than 40 years old. Overall, appropriate samples were found to be extracted associated with the use of SNS.

## 2. Methods

The following self-report measures were used. Specifically, interactivity was measured 6 item, satisfaction and trust was measured 6 item likert 7-point scale based on Lee & Lee(2012)<sup>50)</sup>, respectively. Value was measured 9 item likert 5-point scale based on Kahle(1983)<sup>51)</sup>. using reluctant intention was measured 3 item likert 7-point scale based on Klein et al.(2002)<sup>52)</sup>. In order to compensate for scale difference of the variables, we converted z-score.

## 3. Reliability and Validity

Cronbach  $\alpha$  was used to test reliability and to evaluate internal consistency of measuring items. According to Nunnally(1978)<sup>53)</sup>, Cronbach  $\alpha$  coefficient should exceed 0.7. In this study, Cronbach  $\alpha$  was 0.854 or more to be ensure the reliability. Analyses of the results for the validation of the variables, the confirmatory factor analysis was completed with maximum likelihood estimation. The results of factor loading of each factor exceeded 0.5 to have construct validity, and AVE(average variance extracted) of each variables except using reluctant intention (AVE=.432) exceeded 0.5 to have convergent validity. Also using reluctant intention was validated comparing with the results of correlation analysis ( $r^2$ ) and AVE have convergent validity. These results are shown in <Table 1>.

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50) Lee & Lee op. cit.

51) Kahle, Lynn. R, *Social values and social change: Adaptation to life in America*. New York: Praeger Publishers, 1983.

52) Klein, J., Y. Moon., and R. W. Picard, "This Computer Respond to User Frustration: Theory, Design, and Results," *Interacting with Computers*, Vol. 14, No. 2, 2002, pp.119-140.

53) Nunnally, Jr, Jum. C. *Introduction to Psychological Measurement*. New York: McGraw-Hill, 1978.

〈Table 1〉 Reliability and Validity

Variable	Final item	Cronbach's $\alpha$	Construct Reliability	AVE
Interactivity	6	.916	.873	.535
Value	8	.854	.882	.488
Trust	3	.868	.760	.515
Satisfaction	5	.920	.961	.574
Using reluctant intention	3	.858	.703	.432

#### 4. Correlation Analysis

We conducted to verify the direction and relationships between variables, and the results presented in <Table 2>. Comparison between using reluctant intention (AVE=0.432) with less than 0.5 of AVE and coefficient of determination ( $r^2$ ) had convergent validity. The results showed that Interactivity was positively correlated with value ( $r = .448$ ,  $p < .01$ ), trust ( $r = .224$ ,  $p < .01$ ), and satisfaction ( $r = .654$ ,  $p < .01$ ), respectively. However, interactivity was negatively correlated with using reluctant intention ( $r = -.312$ ,  $p < .01$ ). As a results of the unusual, value was not significantly correlated with trust ( $r = .105$ ,  $p = .142$ ), and using reluctant intention ( $r = -.101$ ,  $p = .159$ ), respectively.

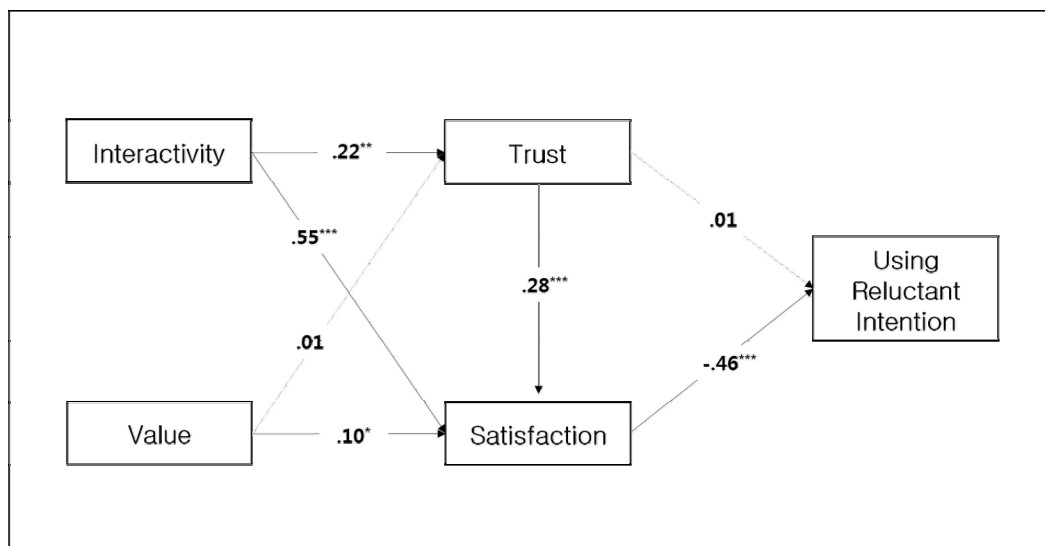
〈Table 2〉 Mean, standard deviations and correlation matrix

	1	2	3	4	5
1. Interactivity	(.535)				
2. Value	.448**	(.488)			
3. Trust	.224**	.105	(.515)		
4. Satisfaction	.654**	.377**	.414**	(.574)	
5. Using reluctant intention	-.312**	-.101	-.180*	-.453**	(.432)
Mean	.527	3.98	3.75	5.05	2.70
S.D	1.07	0.63	1.29	1.14	1.10

note) \*  $p < .05$ , \*\*  $p < .01$ , AVE is marked in ( ).

## 5. Hypothesis Test

Analyses were done to test hypotheses of model: At first, path analysis upon models was done to verify causal relations of each path value. After verifying appropriateness of the models, we conducted theoretical base as well as modification indices proposed by Jöreskog & Söröm(1981)<sup>54</sup> to build up optimum model. Either adoption or rejection of the hypothesis at path analysis were showed in <Table 3> and <Figure 2>.



note) \* p<.05, \*\* p<.01, \*\*\* p<.001

<Figure 2> Results of Path analysis

As shown in modified prototype/behavioral willingness Model presented in <Figure 2>, the reasoned path tend to act in eventually “interactivity → trust → satisfaction”on using reluctant intention, and the social reaction path tend to act in “value → satisfaction”on using reluctant intention, respectively. Therefore, hypothesis 1, 2, 4, 5, and hypothesis 7 was supported by the data, but hypothesis 3 and hypothesis 6 was nt supported. The results of the path model was not indicated fit enough indices:  $\chi^2 = 45.861$ , degree of freedom = 3, provability level = 0.000, GFI = 0.923, AGFI = 0.617, NFI = 0.810, RMR = 0.140.

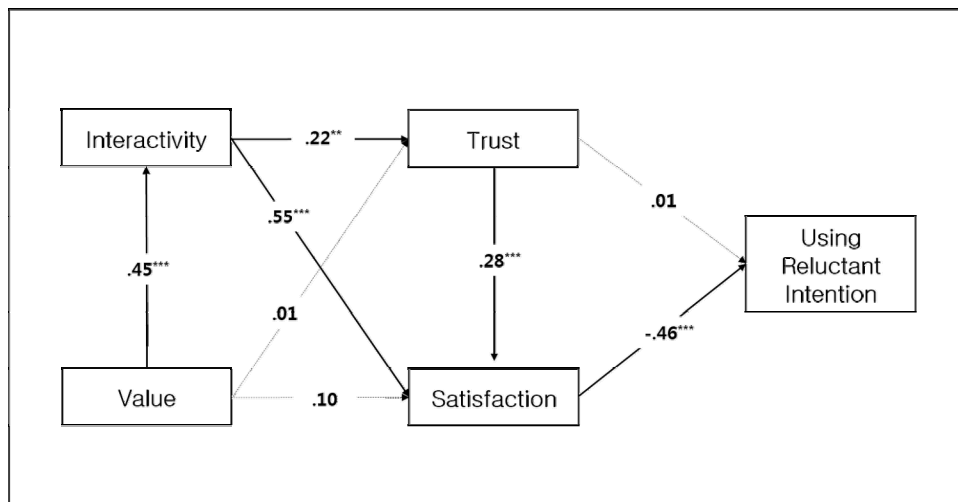
54) Jöreskog, K. G., & Söröm, D. *Lisrel V. User's Guide*, Chicago: National Educational Resources, 1981.

<Table 3> The Results of Path Analysis

	Paths	Estimate	S.E	t-value	p-value	Results
H1	Trust ← Interactivity	.222	.070	3.188	.001	Support
H2	Satisfaction ← Interactivity	.545	.051	10.646	.000	Support
H3	Trust ← Value	.006	.070	.081	.936	Reject
H4	Satisfaction ← Value	.103	.050	2.060	.039	Support
H5	Satisfaction ← Trust	.281	.051	5.477	.000	Support
H6	U.R.I ← Trust	.009	.070	.127	.899	Reject
H7	U.R.I ← Satisfaction	-.457	.072	-6.341	.000	Support

note) U.R.I : using reluctant intention

In this study, interactivity was assumed to have double-edged sword that was much likely to be influenced by values of technical norm. This was because not only at the process of active communication, promotion of active participation(Cho & Kang, 2007)<sup>55)</sup> and various kinds of noises communication(Wiener, 1948)<sup>56)</sup> but also expectancy disagreement at the process of feedback could be influenced by emotional values because of social values and/or emotional effects raising one's own images among people(Sheth et al., 1991)<sup>57)</sup>.



note) \* p<.05, \*\* p<.01, \*\*\* p<.001

<Figure 3> Results of modified Path model

55) Cho & Kang, op. cit.  
 56) Weiner, op. cit.  
 57) Sheth et al., op. cit.

The modification index(MI) was found to increase goodness-of-fit of models at connection of both variables, and the result showed that interactivity was found to have influence upon values ( $\chi^2 = .45, p < .001$ ). However, the result showed that the relationship between value and satisfaction ( $\chi^2 = .45, p = .066$ ) was marginally significant. As shown, the results of the modified model found to be significantly differences in  $\chi^2$  analysis significant as well as indicated fit indices:  $\chi^2 = 1.916, d.f = 2, p = .384, GFI = .996, AGFI = .971, NFI = .992, RMR = .019$ . was an improvement over the first model. The results of modified path model showed that interactivity was influenced by value, and then affecting “trust  $\rightarrow$  satisfaction  $\rightarrow$  using reluctant intention” path and “satisfaction  $\rightarrow$  using reluctant intention” path. These result reflected that interactivity have a double-edged sword and value is very important standard to make a positive of negative role of interactivity.

## V. Discussion and Conclusion

This study focused on causes of use reluctant intention because closed SNS was more active than open SNS was despite tremendous growth of SNS to have negative influence upon not only SNS contents suppliers but also marketing business using SNS. Especially, this study cognized double edged sword of interactivity perceived by SNS users and adopted interactivity of goodwill of SNS use, users' trust of behavioral willingness, SNS users' values of technical norm and satisfaction of behavioral intention, and investigated causal relations by applying prototype/behavioral willingness model corrected.

As a result of the study, there are at least three or four managerial or theoretical implications from this study.

First, prototype/behavioral willingness model corrected had two paths, that is to say, behavioral willingness path that reacted to improvisation and/or situation, and path that one thought in reasonable way to take actions. In other words, processes that interactivity of goodwill of SNS use had influence upon trust had a path of improvisation behavioral willingness, and reasonable path had influence upon use reluctant intention by “value and satisfaction”. But, interactivity had influence upon use reluctant intention by a path of trust and satisfaction that was important. This was because

first suggestion of prototype/behavioral willingness model had influence upon behavior to take improvisation reaction and to let SNS users cognize behavioral factors in reasonable way and decide upon use reluctant intention. Second, at analysis upon theoretical bases and correction models with modification index, interactivity was found to have influence upon not only behavioral willingness that took actions depending upon either improvisation or situation but also behavioral intention path that thought and took actions in reasonable way. The interactivity had double-edged sword to help develop SNS and to produce negative results. And, the value was found to have influence upon interactivity. Third, SNS users, SNS suppliers and businesses that do marketing by SNS shall understand interactivity of SNS and make efforts. A dispute on optimism and/or pessimism produced by Internet can be made (Chadwick, 2006) to supervise information instead of information sharing at "advent of surveillance society"(Lyon, 2001)<sup>58</sup>). Therefore, social agreement shall be made to do bi-directional communication and to participate actively and to build up mobile culture that admits of difference. Forth, SNS trust and satisfaction need to increase. Satisfaction is said to be comparison between experience and expectation and to be coincidence between actual experience perceived and the one expected(Petrick, 2004)<sup>59</sup>) and to be an individual's pleasure and/or disappointment at comparison with outcome perceived(Kotler, 2000)<sup>60</sup>). And, the trust has very much important function from point of view of economically and socially interactivity(Gefen, 2000)<sup>61</sup>) so that trust plays very much important role (Bauer et al., 2006<sup>62</sup>); Lee & Turban, 2001<sup>63</sup>); Singh & Sirdeshmukh, 2000<sup>64</sup>). Therefore, trust build up of SNS use, discovery of factors that satisfy various kinds of desires, and maintenance are needed. Lastly, cognition on values and creation of desirable SNS values are needed. Various kinds of ways for development of interactivity shall be developed by operation of SNS that has public values, commercial values and personal values. General limitations of empirical analysis have not been described herein.

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## 국문초록

### 수정된 원형/행동경향 모형을 통한 SNS이용자들의 상호작용성이 이용저하에 미치는 영향

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본 연구는 최근 SNS의 폭발적인 성장에도 불구하고 공개형 SNS에 비해 폐쇄형 SNS가 활성화되고 있는 것이 장기적으로는 SNS 콘텐츠를 제공하는 기업이나 SNS를 이용해 마케팅전략을 구사하는 기업들에 모두 부정적인 영향을 미칠 것이라는 점에 주목하고 SNS 이용저하의 원인을 찾고자 하였다.

연구수행을 위해 대학생 이상의 남녀 성인 총 205명을 대상으로 설문을 실시하고 이중 불성실한 응답을 한 8명을 제외한 197명의 유효설문지를 분석에 활용하였다.

수정된 원형/행동경향 모형에서 제안한 두 가지의 경로인 즉흥적이거나 상황에 반응하여 행동하는 행동경향의 경로와 합리적으로 생각하여 행동하는 경로가 각각 존재한다는 것을 확인하였다. 이론적 근거와 수정지수를 사용한 수정모형 분석결과 상호작용성은 즉흥적이거나 상황에 반응하여 행동하는 행동경향 경로 뿐 아니라, 합리적으로 생각하여 행동하는 행위에도 경로에 영향을 미치는 양면성을 지니고 있다는 것을 확인할 수 있었다.

**주제어** : SNS; 인지된 상호작용성; 이용저하; 수정된 원형/행동경향 모형

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