

Effects of Real Name Using on SNS User's Behavior and Continuous Use Intention

(실명사용 SNS 사용자의 행태와 지속이용 의도의 영향)

황 연 희¹⁾, 김 영 범²⁾, 이 상 호^{3)*}

(YeonHee Hwang, YoungBerm Kim, and SangHo Lee)

요 약 일관된 온/오프 아이덴티티 관리를 통해 양방향 커뮤니케이션을 강화하고 상호작용을 촉진하는 SNS의 본질과는 다르게 타인의 의견을 일방적으로 수용하는 수동적인 이용행태가 강화되고 있으며 표현의 자유를 즐기기 위해 페이스북을 익명 또는 가명으로 사용하는 사람들이 증가하는 경향을 보인다. 이처럼 변형적으로 나타나는 이용행태를 설명하기 위해 본 연구는 자존감, 실명사용, 의사표현과 같은 심리적·행태적 변인을 포함한 통합모형을 제시하고자 하였다. 연구결과 자존감이 실명사용과 자기노출에 영향을 주는 것으로 나타났으며, 실명사용자가 자신에 대해 더 많은 정보를 노출함에 따라 관계에 대한 만족도와 지속이용의도가 증가하는 결과를 보였다.

핵심주제어: SNS, 실명사용, 자기노출, 만족, 지속이용의도

Abstract Unlike the feature of SNS, which strengthens two-way communication and promotes interaction through consistent on/off line identity management, passive use of Facebook to unilaterally accept other people's opinions is being strengthened, and more people tend to use Facebook anonymously or pseudonym to enjoy freedom of expression. To illustrate this transformative use behavior, this study suggests an integrated model including psychological and behavioral variables such as self-esteem, real name use, and opinion expression to explore the effect on social relationship value perception and satisfaction. Studies have shown that self-esteem affects the use of real names and self-exposure, and that the satisfaction and sustainability of relationships have increased as real-name users expose more information about themselves.

Keywords: SNS, Real name using, Self-exposure, Satisfaction, Sustainable use intention

1. Introduction

Facebook is a large-scale open social network site where people can meet new friends online or their previous acquaintances from offline. To this end, Facebook helps users find their offline acquaintances in its framework by allowing them to post own real name, image, interest, pastime, etc. in the profile, providing plenty of information for intra-platform interaction. Unlike other

* Corresponding Author: leadshow@daum.net

Manuscript received April 20, 2020 / revised May 11, 2020 / accepted May 16, 2020

1) 경성대학교 글로컬문화학부, 제1저자

2) KT, 제2저자

3) 경성대학교 디지털미디어학부, 교신저자

general online environment where anonymity is allowed, Facebook requires real names. Such a practice may limit users' freedom but given that Facebook is a place to connect online world and offline world as they are, its real name-based transparency is naturally an essential element. Real name-based personal profile provision fosters trust among individuals and enables so-called weak connection while maximizing the network of relationships.

However, recently, an increasing number of people are using Facebook anonymously or false names. Although, users can adjust the contents and exposure degree of personal information in Facebook, some of them want to use aliases for the freedom of expression they can enjoy anonymously. As for group users, Facebook exceptionally allows to use the group names. And some other users abuse this practice to open another group page in a borrowed name in addition to their real name accounts. In many popular Facebook pages or groups, users in the administrative position upload postings but their real names are hardly exposed.

And, though social network service assumes bilateral interaction, unilateral media characteristic is witnessed somewhere in Facebook. Few specific peoples are posting articles dominantly while the rest of the users are passively reading them. Thanks to the features like real-time communication and bilateral communication, Facebook has spread within a short period of time. But users are now just passively receiving information unilaterally provided by some famous figures of others with strong interest rather than actively participating in bilateral communication. Or some users tend to regard it easier to accept or observe others' opinions instead of expressing own views or opinions actively as they have been hurt by other people presenting oppositions or aggressive behaviors.

As such, behind the surging number of

Facebook users and their active Facebook use, there emerged multiple users showing distorted ways of using Facebook. In this situation, study is necessary on the psychological factors affecting users' opinion expression who shows different desires and ways of use from before as well as investigation into the satisfaction with Facebook and the intension of continued use is essential according to the changes in Facebook use patterns.

Thus, this study suggests an integrated model including psychological and behavioral variables such as self-esteem, real name use and opinion expression to explore the effect on social relationship value perception and satisfaction. Specifically, this study looks at the effect of users' self-esteem, the perception of one's own value of existence, on real name use and self-expression. Also, this study quantitatively examines the behaviors of real-name preferring users toward self-disclosure and attitude toward social capital perception and continued use. The effect of self-disclosure on social capital perception and continuous use is also examined in this study.

2. Theoretical Backgrounds

2.1 SNS and Self-esteem

Self-esteem refers to personal view on oneself and it is consisted of personal evaluation on self-concept (Burger, 2006). Generally, self-esteem is formed by emotional and cognitive evaluation on oneself such as how I regard and think about myself (Rosenberg, 1965; Bosson, 2006), and it is also made by the overall evaluation on oneself (Baumeister et al., 1989; Baumeister et al., 1996; Mruk, 2006) such as how much I take myself positively and recognize myself as a valuable human being (Griffiths, 2000).

Self-esteem is generated by diverse sources. The objective self-awareness theory (OSA theory) explains that people come to establish self-esteem through objective recognition and evaluation of themselves. In other words, normally, people recognize ego subjectively or objectively and self-esteem is formed by self-awareness which is to recognize own self objectively as an objective other put under consciousness (Duval and Wicklund, 1972), while subjective self-concept is established through subjective evaluation on how much valuable person I am in a non-cognitive status.

Such self-esteem based on objective self-awareness is formed by objectively evaluating and assessing one's own self based on a broad range of standards such as others, social standard and norms enabling ego evaluation. Fejfar and Hoyle (2000) asserted that when people were aware of themselves objectively, most of them found themselves falling short of social standards; thus, if people were exposed to a stimulation provoking objective self-awareness, people tended to lose their positive emotion and self-esteem in general. Therefore, when they face stimulations triggering objective self-awareness such as the profile information of social networking service, he predicted that people would experience lower self-esteem and become reluctant to expose information on themselves.

However, Walther (1996; 2007; 2011) explained that the relationships among people established through 'Hyperpersonal Model' in cyber space were para-social relationship different from real-world relationship. In such hyperpersonal relationship, people have insufficient amount of social clues about their counterparts (Walther and Parks, 2002). Thus, they cannot find out the true nature of the others mutually. In this situation, he argued that, individuals tend to set and disclose own

ego as they wish by considering how others would recognize and think of themselves. In other words, the internet is a medium that allows selective self-expression. And, therefore, people take some time to carefully select the aspects they desire to emphasize and post such selected information on themselves. Thus, it was proved that in cyber space, unlike the real world, self-expression and self-disclosure are optimized and promoted through selective self-expressive efforts emphasizing only positive and superior information about oneself.

In line with this, individuals are expected to use different strategies in pursuing this selective self-expression in using social network service. And such a practice is affected by their degree of self-esteem. It is that, self-esteem could affect one's decision on how much to disclose personal information, opinions and attitude in social media service environment where one's personal information is exposed to unspecified many people to expand his or her offline relationships.

2.2 Self-esteem, Real Name Using and Self-disclosure

Individuals disclose only the clues that they want other people to know, and, to establish a desirable impression, they plan for own identity by inflating or removing some specific clues. So, individuals come to adopt mutually different elements in expressing themselves online and offline. Christofides et al. (2009) researched students' information disclosure and identity elements and found that confidence and self-esteem had made difference in personal information provision. People with lower self-esteem tend to be more careful in selecting what to disclose and establish own identity by sharing information such as photographs and

gaining support and attention from others. On the other hand, people with high self-esteem tend to feel it less necessary to involve others' intervention in establishing self-construction and they provide more factual information.

Moreover, people having lower self-esteem take more care about sharing information with all people whereas those with high self-esteem take more care about the sense of closeness and popularity within a group they selected (Ellison et al., 2007; 2011). In the social media services connected with the offline world such as Facebook, users who already have rich face-to-face relationships find it hard to use a false name and it is difficult to falsify or conceal their identity in such an online environment. Because Facebook connect offline acquaintances, users provide more honest personal profile information. Therefore, people with high self-esteem who have formed multiple offline personal relationships are highly likely to use facts such as real name in their profile information.

- H1. SNS users' self esteem has a positive effect on real name using towards his site access.

People with strong self-esteem, however, are less active in self-disclosure. Self-disclosure is defined as the process of letting others know about oneself and the tendency to disclose personal information to others. Self-disclosure information expressed to others includes external information such as job, school, personality, income and body measurement information as well as internal information like attitude, opinion, taste and interest (Lampe et al., 2006).

Maureen (1963) explained that self-esteem affected one's free provision of self-disclosure information to others. He supposed that people with high self-esteem had more confident in

their own attitude so they did not have to receive praise or support from others; thus, they did not need to present own opinions or stance voluntarily. On the other hand, people with weaker self-esteem would be more active in self-disclosure in order to gain more people's interest and support. Although he found no significant difference in the degree of self-disclosure according to self-esteem, difference was observed in the reasons of self-disclosure. High self-esteemed people were willing to self-disclose as they believed their stance and opinion were worthwhile to communicate. But low self-esteemed people exposed themselves in order to make themselves relieved or test if their exposed information was valuable based on other people's acceptance and praise.

For timid, lonely and low self-esteemed people having difficulty in building social relationships in the offline world, social networking services such as Facebook provides a comfortable environment for them to connect with others to enrich their personal relationships (Dailey, 2009; Rosenwald, 2011). In general, low self-esteemed people tend to show a strong self-preservation. While high self-esteemed people focus on showing their excellent aspects, low self-esteemed people focus on not to showing their weaknesses (Baumeister et al., 1989). Thus, Facebook has a special meaning to provide the loose relationships to such people with weaker self-esteem who feel relatively a larger risk of disclosing own weaknesses in closer and deeper interpersonal relationships. For them, interaction with others in such loose relationships is especially valuable experience. Therefore, low self-esteemed people see Facebook as a safe space to show themselves, tend to spend more time, express more about themselves and share diverse information.

However, people with strong self-esteem tend to be reluctant to disclose negative information about themselves, in particular, negative information on their interpersonal relationships. Social network sites are designed to choose 'like' and to leave a comment on the Facebook page and such relationship information is shared with others. This seems the reason of them being reluctant to show negative information for their image management. Moreover, many social media are asynchronistic, meaning that before a message is shared, it is carefully structured and edited. The fact that messages are not exchanged synchronistically indicates that individuals have more control over self-disclosure. High self-esteemed people often delay the time to censor self-disclosing information or think deeply about it, so their posting frequency grows lower. In this sense, a negative correlation can be assumed between self-esteem and self-disclosure.

H2. SNS users' self-esteem has a negative effect on self-disclosure towards his site using.

In general, people build own identity across online and offline spaces by sharing information such as personal life and interest using Facebook and form a social identity by sharing these information with as many people as possible and through what others' comment on themselves (Hewitt and Forte, 2006). In utilizing a social network service as a tool to form one's identity, peoples are to prove own identity by providing information in profile of the corresponding site (Boyd and Ellison, 2007). In doing so, they have to disclose the information to numerous people in their offline relationships as well. Therefore, Facebook and other platforms encourage people to provide

more accurate description (Weisbuch et al., 2009). In this manner, individuals gain 'guarantee' on the clues connecting their online ego with offline ego, leading to their credibility in the online world. For instance, clues like a photo of climbing up a very high mountain can earn stronger credibility than a simple online description that i like mountain climbing (Walther and Parks, 2002).

Recent studied found that real names, real photos and shared offline social relationships helped lower the degree of camouflage (Weisbuch et al., 2009). Individuals using their real name in Facebook, therefore, would use Facebook more often to reinforce their identity online and improve intimacy in relationships. And in using it, they are expected to click more 'like it/dislike it' on the wall; share more of personal information including pastime, personal thoughts or agonies with others; continuously renew such information and increase self-disclosure.

H3. SNS users' real name using has a positive effect on self-disclosure towards his site using

2.3 Social Capital Perception, Satisfaction and Sustainable Use Intention

Social capital is defined as the total aggregation of virtual and practical resources accumulated in individuals or groups by continued networking in daily relationships with acquaintances or closer people (Bourdieu and Wacquant, 1992). To put it easily, social capital is as productive as other resources and enables individuals to achieve specific purposes otherwise impossible (Coleman, 1988). That is, for individuals, social capital allows them to acquire useful information from their network members; form personal relationships with

influential others; and acquire resources such as group organizational support (Paxton, 1999).

In acquiring such a resource, individuals cannot secure sufficient social capital only through their close friends. For that reason, they work to maximize their social capital by expanding their relationships through internet-based connections such as social network service. Most of the social network sites help individuals maintain and expand their connection with others. Users try their social capital expansion in such sites by interacting with their offline relationships or trying to meet new people. As a result, SNSs like Facebook come to facilitate social capital generation.

It is generally understood that people use online SNS to maintain their existing social relationships and establish new relationships. According to a previous study, however, Facebook users do not try to look around to meet more strangers. Rather, they are more interested in finding out their existing offline friends online (Lee, 2016; Kim and Lee, 2019). Moreover, when the social online and offline network is duplicated, people tend to rely more on offline rather than online. Once SNS users acquainted new friends through Facebook, their online encountering result in offline face-to-face meeting. Parks and Floyd (1996) empirically proved that about one-third of his study respondents met their online friends offline later on.

Therefore, it can be assumed that people using a real name in Facebook recognize the value of social capital and try to expand their relationships into offline based on their offline social relationships capital. Although people do not base on their offline relationships, real names are essential to build offline relationships with others in new loose relationships in the online space. Thus, those who expose their real name in Facebook are highly likely to recognize the value of social

relationships and have higher satisfaction with services like Facebook which helps extend offline relationships into online for their social capital expansion. Consequentially, such people would have a higher intention to use SNS continuously.

- H4. SNS users' real name using has a positive effect on social relation value perception.
- H5. SNS users' Real name using has a positive effect on Satisfaction.
- H6. SNS users' Real name using has a positive effect on Sustainable Sse.

Computer-mediated communications such as SNS chatting and messaging lowers the barrier to mutual interaction and facilitates self-disclosure to enable new connections and play a huge role in maintaining existing relationships. Facebook, in particular, lets users introduce themselves to others through their profile and update their recent news to engage in interaction with strangers.

Facebook also let people post their opinions; share with others; make comments to other people's postings. By doing so, it facilitates self-disclosure. Moreover, Facebook reinforces one's social capital by expanding inter-personal relationships via the function of 'invite friends' and click 'like' icon and also many other diverse functions (Ellison et al., 2007; 2011; Lee, 2016). As such, self-disclosure such as personal information disclosure in Facebook and sharing opinions and thoughts with others connected to the network plays a key role in one's inter-personal interaction. In other words, self-disclosing behavior become the basic for interpersonal interaction for users whose the ultimate purpose of using SNS is for inter-personal interaction to establish social relationship network. Since self-disposure

serves as the starting point to for trust among the participants, therefore, the degree of self-disclosure is assumed to be related to how much the person thinks about his or her social relationships.

Self-disclosing behaviors such as posting a lot of photos, engaging in active discussions with others and sharing personal interest and information not only help expand personal relationships but also bring deeper pleasure and bond from the accumulated quality relationships through continued updates. It is assumed that people continuously expose their information in Facebook to maintain the sense of fellowship and when such a desire is met, people feel satisfied. Moreover, self-disclosure brings upon inter-user trust and high quality and stable relationships (Walther, 1996; 2007; 2011) thus, the more the people want to maintain relationships, the more continuously they update personal information, exchange opinions and pursue active communications in deep relation to the intention of continued use. Therefore, concerning the self-disclosure and social relationship perception and the effect of self-disclosure on Facebook satisfaction and possibility of its continued use, the following hypothesis can be established;

- H7. SNS users' Self-disclosure has a positive effect on Social relation value perception.
- H8. SNS users' Self-disclosure has a positive effect on Satisfaction.
- H9. SNS users' Self-disclosure has a positive effect on Sustainable Use.

2.4 Social Relation Value Perception and Sustainable Use Intention

Putnam (2000) differentiated relationship bridging from bond formation in social capital

generation. Relationship bridging is involved to weak connection which seeks to receive useful information or new perspective through loose connections among individuals and it is not related to emotional and psychological support in general (Granovetter, 1983). Donath and Boyd (2004) argued that SNSs including Facebook provided appropriate service for the formation and maintenance of simple, affordable and loose relationships so they were more suitable for weak connection management and they facilitated loose social relationships where users sought more diversified relationships and the expansion thereof.

On the other hand, bond formation in social capital is found among individuals in emotionally close relationships such as family and friends. William (2006) proved that internet service affected bonding experience and relationship connection in weak relationships serve as the foundation for bond. Though some studies have questioned the possibility of strong connection through the internet, it is obvious that the internet does facilitate connection among people who share interest and purpose of relationship. Online social network tools, in particular, present a new alternative of relationship building to people and let them build and keep difficult relationships in the offline area.

Facebook also helps continue offline relationships that used to be maintained within a certain geographical region. For instance, although someone moves to another region or overseas, he or she can still maintain relationships through SNSs like Facebook. Mobile-based SNSs including Facebook, especially, not only promote personal relationships without any limitation of region or distance but also allow instant interaction at any desired moment, reinforcing relationships. Based on these, the following hypothesis can be

established;

- H10. SNS users’ social relation value perception has a positive effect on satisfaction.
- H11. SNS users’ social relation value perception has a positive effect on sustainable use.
- H12. SNS users’ satisfaction has a positive effect on sustainable use.

3. Research Method

This study quantitatively examines the behaviors of real-name preferring users toward self-disclosure and attitude toward social capital perception and continued use. The effect of self-disclosure on social capital perception and continued use is also examined. For that, this study presents a research model shown in Figure 1.

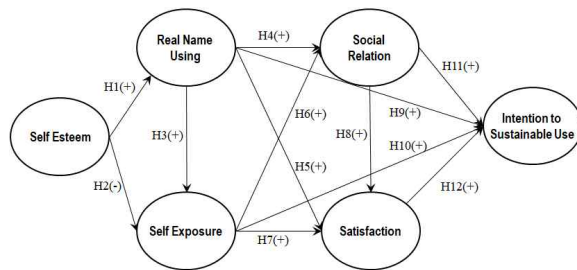


Fig. 1 Research Model

All item of each variables was operationally defined for the empirical analysis and then survey questions were developed based on that. All items were adjusted for the purpose of research on the basis of the scale that was used in previous studies. Most of items were measured on a Likert 7 scales and we used statistical program package, SPSS 19.0, AMOS 19.0. For this research, researchers conducted an online survey with professional research

company, MER which has wide panel of SNS users. Except for trustless responses, 286 responses out of 290 responses were used for this research.

4. Research Analysis

4.1 Data and Demographic Profile

Respondents were only facebook.com users, and the people who visit Facebook at least once a day is 74.5%. Their average age was 31.5, Seoul/capital area 42.7%, their occupations are students 57.0%, and management jobs 23.4%.

4.2 Consistency and Validity

Researchers verified the structural equation model of self-esteem, real name using, self-disclosure, social relation value perception, satisfaction, and intention to sustainable use. These 2 steps approach recommended by Anderson and Gerbing (1998) was used as a guide to test the SEM.

Researchers examined the measurement model to test validity and reliability first and examined the SEM to test research hypotheses and model fitness. First, researchers adopted structural equation modeling software AMOS to conduct a confirmatory factor analysis and examine the validity. Table 1 lists the standardized factor loadings, CR (Composite reliability), AVE (Average variance extracted) and the Cronbach’s Alpha values. As listed in the table, most item loadings are larger than over 0.7 and T-values indicate that all loadings are significant level. All AVEs exceed 0.5 and CRs exceed 0.7, respectively. Furthermore, all Cronbach’s Alpha values are larger value than over 0.7, a good reliability suggesting.

Table 1 Results of Reliability and Validity Analysis

Variables of proposed model	Standardized item loading	T-Value	CR	AVE	Cronbach's Alpha	
Self Esteem	SE ← esteem1	0.718	14.180	0.848	0.585	0.874
	SE ← esteem2	0.888	- a)			
	SE ← esteem3	0.897	19.540			
	SE ← esteem4	0.706	13.836			
Real Name Using	RN ← realname1	0.866	20.619	0.845	0.646	0.922
	RN ← realname2	0.901	-			
	RN ← realname 3	0.914	22.563			
Self -disclosure	SX ← -disclosure1	0.913	28.090	0.897	0.744	0.949
	SX ← -disclosure2	0.926	29.286			
	SX ← -disclosure3	0.948	-			
Social Relation	SR ← relation1	0.814	17.397	0.831	0.623	0.869
	SR ← relation2	0.950	-			
	SR ← relation3	0.748	15.347			
Satisfaction	SA ← satisfaction1	0.690	13.330	0.815	0.598	0.851
	SA ← satisfaction2	0.924	-			
	SA ← satisfaction3	0.842	17.538			
Intention to Sustainable Use	SU ← su1	0.880	20.475	0.803	0.582	0.850
	SU ← su2	0.950	-			
	SU ← su3	0.656	12.939			
Summary of model fit indices: $X^2=231.352$, $df=137$, $p=0.000$, $X^2/df=1.689$, $RMR=0.069$, $GFI=0.920$, $NFI=0.943$, $RFI=0.928$, $IFI=0.976$, $TLI=0.969$, $CFI=0.976$, $PNFI=0.755$, $PCFI=0.782$, $RMSEA=0.049$, *) $P < 0.001$, a) fixed to 1						

The GOF (Goodness-of-fit) indices provide empirical evidence of the degree of correspondence between standardization data and proposed research model. The Chi-square (X^2) fit statistics show 231.352 with 137 of freedom, and Chi-square/df is 1.689 ($p < 0.001$, suggested value < 4.0). As shown in Table 1, The GFI, IFI, NFI, RFI, TLI, CFI, RMR, RMSEA, PNFI, and PCFI fit indices surpass and close the suggested value for a good model. Overall, All statistics support the measurement quality given the number of indicators.

The RMR (Root mean square residual) is 0.069, and the RMSEA (Root mean square error of approximation) is 0.049. Typically, the RMSEA and the RMR index are lower than 0.01 for a good fit and lower than 0.07 indicates an excellent fit. The goodness-of-fit index (GFI) is 0.920, the normed fit index (NFI) is 0.943, the relative fit index (RFI) is

0.928, the incremental fit index (IFI) is 0.976, the Tucker-Lewis index (TLI) is 0.969, the comparative fit index (CFI) is 0.976, the parsimony normed fit Index (PNFI) is 0.755, and the parsimony-adjusted comparative fit index (PCFI) is 0.782.

4.3 Model Fit

Researchers estimated the SEM (Structural equation model). Table 2 presents the results and lists the actual values of some fit indices for SEM. The Chi-square (X^2) fit statistics show 238.768 with 140 of freedom, and Chi-square/df is 1.705 ($p < 0.001$, suggested value > 1 , < 4.0). The GOF indices provide empirical evidence of the degree of correspondence between standardization data and proposed research model. The following standards to assess model fit are generally accepted. The RMR is 0.077, and the RMSEA

Table 2 Results of Model Estimated by AMOS

Path of proposed model		Standardized item loading	T-Value	Results
Real Name Using ← Self Esteem	H1	0.164 **	2.555	Support
Self -disclosure ← Self Esteem	H2	-0.162 **	-2.637	Support
Self -disclosure ← Real Name Using	H3	0.343 ***	5.575	Support
Social Relation ← Real Name Using	H4	0.045	0.710	Not Support
Satisfaction ← Real Name Using	H5	0.159 **	2.668	Support
Sustainable Use ← Real Name Using	H6	0.137 **	2.453	Support
Social Relation ← Self -disclosure	H7	0.358 ***	5.670	Support
Satisfaction ← Self -disclosure	H8	0.017	0.274	Not Support
Sustainable Use ← Self -disclosure	H9	0.079	1.364	Not Support
Satisfaction ← Social Relation	H10	0.496 ***	7.787	Support
Sustainable Use ← Social Relation	H11	0.145 **	2.196	Support
Sustainable Use ← Satisfaction	H12	0.463 ***	6.916	Support
Summary of model fit indices: $X^2=238.768$, $df=140$, $p=0.000$, $X^2/df=1.705$, $RMR=0.077$, $GFI=0.917$, $NFI=0.941$, $RFI=0.928$, $IFI=0.975$, $TLI=0.969$, $CFI=0.974$, $PNFI=0.770$, $PCFI=0.798$, $RMSEA=0.050$				
*) $p < 0.1$, **) $p < 0.05$, ***) $p < 0.001$				

is 0.050. The GFI is 0.917, the NFI is 0.941, the RFI is 0.928, the IFI is 0.975, the Tucker-Lewis index (TLI) is 0.969, the CFI is 0.974, the parsimony normed fit Index (PNFI) is 0.770, and the parsimony-adjusted comparative fit index (PCFI) is 0.798.

As shown in Table 2, The RMR, GFI, NFI, RFI, TLI, IFI, CFI, RMSEA, PNFI, and PCFI fit indices surpass and close the suggested value for a fine model. Overall, almost of fit indices have better actual values than the recommended values. These indicates are all a good fitness.

Supporting H1, Facebook users' self-esteem had a significant positive effect on real name using (Standardized regression weights: $SRW = 0.164$, t -value = 2.555, $p < 0.05$). Also H2 is supported by the significant negative (-) impact of users' self-esteem on self-disclosure ($SRW = -0.162$, t -value = -2.637, $p < 0.05$).

And H3 is supported by the significant positive impact of users' real name using on self-disclosure ($SRW = 0.343$, t -value = 5.575, $p < 0.001$). H5 is supported by the significant positive impact of users' real name using on satisfaction ($SRW = 0.159$, t -value = 2.668, p

< 0.05). But H4 is not supported by any impact of users' real name using on social relation value perception.

Supporting H6, Facebook users' real name using had a significant positive effect on sustainable use intention ($SRW = 0.137$, t -value = 2.453, $p < 0.05$) and supporting H7, Facebook users' self-disclosure had a significant positive effect on social relation value perception ($SRW = 0.358$, t -value = 5.670, $p < 0.001$). Whereas, H8 is not supported by any impact of users' self-disclosure on satisfaction.

Also, H9 is not supported by any impact of users' self-disclosure on sustainable use. But H10 is supported by the significant positive impact of users' social relation value perception on satisfaction ($SRW = 0.496$, t -value = 7.787, $p < 0.001$) and H11 is supported by the significant positive impact of users' social relation value perception on sustainable use intention ($SRW = 0.145$, t -value = 2.196, $p < 0.05$). Finally, H12 is supported by the significant positive impact of users' satisfaction on sustainable use intention ($SRW = 0.463$, t -value = 6.916, $p < 0.001$).

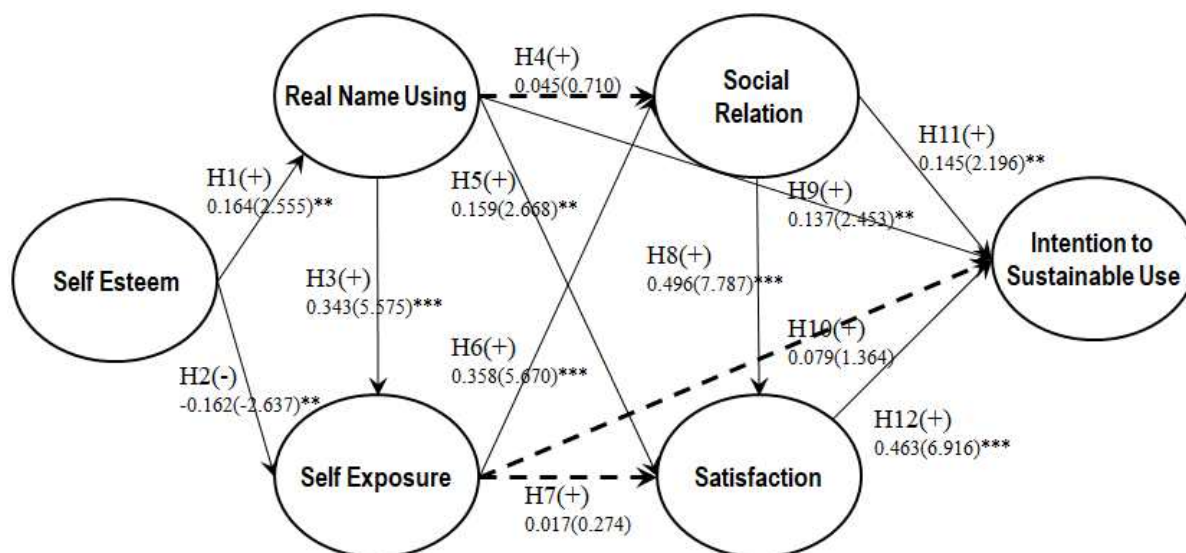


Fig. 2 Results of Research Model

Although H4, H8, H9 are not supported by the non-significant impact of users' real name using on social relation value perception, self-disclosure on satisfaction and self-disclosure toward sustainable using SNS, researchers confirmed that sustainable use intention of Facebook was explained by real name using, self-disclosure, and social relation value perception factors. Most of hypotheses (H1-H3, H5-H7, and H10-H12) are supported by the data analysis of AMOS.

5. Discussion

The integrated model of this study presented that self-esteem caused mutually contradictory behaviors about real name use and self-disclosure; and that real name use directly affected self-disclosure and service satisfaction but had no relation with social relationships awareness. On the other hand, self-disclosure, though it had no direct effect on intention to continued service use, had a positive effect on social relationship value perception and this led

to service satisfaction. These study findings provide very interesting discussion points on SNS users' opinion presentation and continued service use, delivering diverse academic implications.

The existing researches on SNS usage behaviors explained that people with low self-esteem in the offline world or people with low satisfaction with their existing social relationships actively participated in online activities to gain the sense of compensation for their low self-esteem. Many studies also explained that people used Facebook to make themselves look popular and increase own social capital. These studies provide an important idea in explaining social media expansion; they explain why low self-esteemed people tend to be active in social relationship formation through Facebook. As such, low self-esteemed people are active in Facebook use have long been accepted without doubt.

However, researchers came to question if such numerous postings had been written with low self-esteem. We investigated focusing on high self-esteemed people to find out what

kind of desires and SNS use patterns they had and empirically tested differences of diverse SNS usage behavior appearing along with the surging number of SNS users and their active service use.

In this study, we find that self-esteem causes mutually contradictory behaviors over real name use and self-disclosure and that real name use directly affects the intention to continued service use.

It has implications as follows; Studies on one-way media explained that people with higher self-esteem recognized their opinion would be influential to others and change the society. So they were found to make comments more often. Also, regarding the initial social media where two-way communication became common, people with higher self-esteem tended to disclose themselves more and use real names. And those who use their real names were found to expose more information about themselves. However, as two-way communication has become common through social media and some celebrities have had to face a hard time due to some of their own disclosed opinions, not only the celebrities but also general users have come to fully understand the price of disclosing own opinion and view of life. In this era of readily available information, any ordinary person could be a target of personal information exposure if he or she makes any socially problematic remarks. And such a person is also faced with secondary damage by additional insulting or defamation. Therefore, depending upon the degree of self-esteem, people show different and contradictory attitudes toward real name opening and self-disclosure.

To expose one's real name is the expression of self-esteem and the behavior to show others that the person is using the service in

the right way. Users who do not want to hurt their self-esteem just try to read their friends' opinions and make some passive expressions rather than presenting own views. But, once their real names are exposed, they show more positive attitude to expressing themselves. It is a very interesting finding that if a user utilizes Facebook service where his or her real name is disclosed, the person becomes more positive to self-disclosure compared to other anonymous sites. This explains that users recognize Facebook as a kind of society connected by real names; user satisfaction improves as they post truth instead of false and genuine daily events or sincere views; and such becomes the motivation of continued service use.

If Facebook is anonymous while forming huge social relationships, positive virtuous cycle that forms a trust relationship based on the fact-based sincere articles would not have been there. In other words, if Facebook did not use real names, it would have been covered by malignant replies, slangs, swearing words, IPR infringement, lies and exaggeration just as other anonymous sites along with all kinds of irregularities. Sites including Facebook and Twitter are fulfilling the proper function as a sound media with relatively strong reliability thanks to their real name use scheme.

As analyzed above, the present study sought to investigate reasons that real name users had higher satisfaction and more frequent self-disclosure by escaping from the previous study framework on negative relationship between self-esteem and self-disclosure concerning the spread of real name-using SNSs including Facebook and Twitter. As a result, it was found herein that users with high self-esteem were positive toward self-disclosure through real name use. And as

their awareness on social relationship value increased by doing so, the satisfaction and intention to continued service use improved as well. These findings are significant contribution to improve existing study theoretically.

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황 연 희 (YeonHee Hwang)

- 정회원
- 한양대학교 경영학 석사
- 연세대학교 경영학 박사
- 경성대학교 글로벌문화학부 교수
- 관심분야 : 마케팅, 문화, 모바일, 콘텐츠 등



김 영 범 (YoungBerm Kim)

- 정회원
- 연세대학교 경영학 학사
- 연세대학교 경영학 석사
- 서울과학종합대학원 경영학 박사
- KT 부장
- 관심분야 : 게임, 정보통신기술, 모바일, 디지털콘텐츠 등



이 상 호 (SangHo Lee)

- 정회원
- 고려대학교 경제학 학사
- Aalto University 경영학 석사
- 서울과학종합대학원 경영학 박사
- 경성대학교 디지털미디어학부 교수
- 관심분야 : 게임, 디지털미디어, 혁신, 미디어정보, IPTV, 스마트미디어