Print ISSN: 1738-3110 / Online ISSN 2093-7717 http://dx.doi.org/10.15722/jds.14.8.201608.35

# Relationship between Local SNS Usage and Social Capital

Chunliang Yao\*, Jae-Hun Joo\*\*, M. Minsuk Shin\*\*\*

Received: July 6, 2016. Revised: July 15, 2016. Accepted: August 15, 2016.

# **Abstract**

**Purpose -** This study aims to understand the relationship between Chinese local SNS usage and social capital building through Chinese international students in South Korea. A research model that illustrates the relationship between the SNS usage (i.e., intensity, communication and social capital building is proposed. Based on the analysis, this study will provide responses to the question of if SNS really presents the danger of trapping international consumers in their local comfort zone or enhance social capital for the users.

Research design, data, and methodology - The survey questionnaire is circulated among the WeChat (a Chinese local SNS) users who are the Chinese international students studying in South Korea. The collected data is analyzed by structural equation method using SPSS and AMOS.

Results - Proposed hypotheses of the positive relationships between the attachment of SNS use and both individuals' bridging and bonding social capital are supported. It's also supported that (1) interpersonal communication, (2) interpersonal communication with old friends, and (3) interpersonal communication for making new friends on SNS positively influence individuals' bridging social capital.

**Conclusions** - This paper demonstrates the importance of intensity of WeChat use and interpersonal communication that impact Chinese international students' bridging and bonding social capital on WeChat.

Keywords: Social Network Service, Intensity of SNS Usage, Interpersonal Communication, Social Capital, WeChat.

JEL Classifications: M10, M15, M30.

### 1. Introduction

Social Network Service (SNS) aims at building interpersonal relationship networks with similar occupations, hobbies, benefits, goals, and provides users with constant information sharing and open communication (e.g., Shin & Joo, 2015). Social capital is the tangible and intangible benefits and resources one can derive from his or her social relationships (e.g., Yendaw, 2014). Thus, many studies report that building social relationships on SNSs enhances social capital for the users (e.g., Li & Chen, 2014). However, existing studies are biased on Facebook, Tweeter, Linked-In,

\* Master's student at Dongguk University, Gyeongju, Korea, Tel: +82-54-770-2346, E-mail: ycl1991223@163.com

and other global or English (the language) based SNSs (e.g., Mayr, 2015; Schijns & Smit, 2010). Employees with high-quality social resources (such as abundant structural hole, high centrality or high-level connections) are more likely to achieve high performance (Morrison, 2002). An ironic consumer behavior of SNS is that due to the global online environment, consumers who move to a different country still cling to his or her home country's local SNS, which he or she is accustomed to and the personal network is already established. In other words, born global SNS might present the danger of trapping consumers in their local frame ironically due to the global nature SNS. It is interesting and necessary to explore if international consumers (i.e., migrants) can build and maintain their social capital in another country by using their homeland SNS applications.

In this context, this present study aims to understand the relationship between WeChat (i.e., a Chinese local SNS) usage and social capital building through Chinese international students in South Korea. Consumer behavior on SNS will be examined through the intensity of their usage and the

<sup>\*\*</sup> Professor of Management Division at Dongguk University, Gyeongju, South Korea, Tel: +82-54-770-2346, E-mail: givej@dongguk.ac.kr

<sup>\*\*\*</sup> Corresponding author, Assistant professor of International Business at Konkuk University, Seoul, Korea. Tel: +82-2-450-3774, E-mail: shinm@konkuk.ac.kr

communication types they make on WeChat. Then, the relationship between consumer behavior and their social capital accumulation will be analyzed. Based on the analysis, this study will offer responses to the question of if SNS really presents the danger of trapping international consumers in their local comfort zone or enhance social capital for the users.

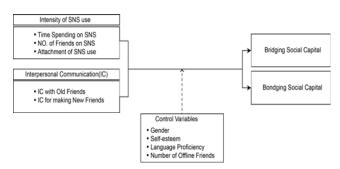
## 2. Literature Review

### 2.1. Research Model

SNS provides users a platform for their online activities, making new friends, and connecting with the outside world (Wellman et al., 2001; Wang et al., 2014). Once individuals get in touch with each other through SNS, the social relations among them occur, which then lead to strengthening social capital (Li, 2011; Won, 2016). Ellison et al. (2007) examined the relationship between the use of Facebook and the social capital accumulation. Putnam (2000) has described two types of social capital: bridging and bonding social capital. The core of bridging social capital is the social resources generated by weak relations (or "weak tie") in the social network, which exist in such forms as new ideas, useful information and job opportunities that are brought by weak relations. Bonding social capital corresponds to strong relations (or "strong tie") in the social networks, which exist in the form of tangible economic supports, emotions and so on. The intensity of SNS usage positively influences users' bridging social capital; and this relationship is based on students' degree of self-esteem and satisfaction with life (Ellison et al., 2007). Meanwhile, the intensity of using SNS in their research also significantly impacts on bonding social capital (Ellison et al., 2007). A

positive relationship between the interpersonal communication on SNS and both bridging and bonding social capital is supported when the author is discussing the impact of relations communication of SNS on the social network on user's interpersonal relationship, and the consequent change of social capital (Chen, 2011; Cho et al., 2012). <Table 1> is summary of some studies of social capital.

Ellison et al. (2014) proposed the gender, age, education, and self-esteem as the control variables in the study. The present study does not consider the age and education as the control variable as most SNS users are in their 20-30's and as education level should not be a factor that influence accumulation of social capital. Gender and self-esteem are proved to be the significant predictors of both bridging and bonding social capital (Ellison, 2014). Thus, this study considers the gender and self-esteem as the control variables as well. The language proficiency will influence the extent to which international migrant communicate with the locals. Also, the number of offline friends should also be considered one of the control variables. Based on the previous studies, this study presents a research model as in <Figure 1>.



<Figure 1> Research model

<Table 1> Studies Related to Social Capital

Author	Context	Main Measurements	Findings
Landry et al. (2002)	Structural social capital, cognitive social capital, and firm's decision to innovate	Percentage of sales dedicated to R&D Number of different advanced technologies used by firms; Participation assets; Relational assets; Financial assets; Marketing assets; Trust assets; Pressure from competition.	Relational social capital → decision to innovation
Lazarova & Taylor (2009)	Boundaryless careers, social capital, and organizational performance	Internal psychological; Internal enacted; External psychological; External enacted; Structural, Relational, Cognitive Social Capital; Organizational Performance.	Social Capital → Organizational Performance
Pérez-Luño et al. (2011)	Social Capital, Knowledge, and Innovation	External social capital; Knowledge tacitness; Knowledge complexity; Radical innovation.	External social capital → radical innovation; Knowledge complexity → radical innovation.
Li & Chen (2014)	SNS and Social Capital	Maintaining home country social capital; Bridging social capital; Bonding social capital; Intensity of Facebook use; Intensity of RenRen use.	Intensity of Facebook and RenRen use → Bridging social capital; Intensity of RenRen use → Maintaining home country social capital.

### 2.2. Hypotheses

Many studies report that SNS usage positively related to the bridging social capital. More recent evidence (e.g., Li & Chen, 2014) suggests as people spend more time on SNS. it would be easier for users to accumulate and maintain their bridging social capital. Ellison et al. (2007) proposed the number of "friends" and the hours spent on SNS on a given day as the self-reported assessment of SNS behavior included in the intensity test. And he proposed that intensity of SNS usage was positively associated with the individuals' perceived bridging social capital. Furthermore, when Ellison et al. (2014) studied the relationship between actual friends on SNS and SNS relationship maintenance behaviors with the social capitals, he conducted that the total number of actual friends on SNS would positively impact the users' bridging social capital. Donath and Boyed (2004) also suggest that SNS provides a low cost and simple way of communication that will help individuals to form and maintain the weak ties. Thus, the following hypotheses are proposed:

- <Hypothesis 1> Intensity of SNS use will positively associate with individuals' bridging social capital.
- <Hypothesis 1a> The time spending on SNS will positively impact individuals' bridging social capital.
- <Hypothesis 1b> The number of friends on SNS will positively impact individuals' bridging social capital.
- <Hypothesis 1c> The attachment of SNS use will positively impact individuals' bridging social capital.

Interpersonal communication refers to communicating with friends, sharing information, and idea with friends online. Through SNS, the users could keep in touch with friends and get in touch with new friends. In Chen's (2011) study, she considered the preference of SNS use, which means the different purposes users have to use SNS, would influence the users' social capital. And she divided the preference into three dimensions: (1) for information gathering; (2) for interpersonal communication, and (3) for online games. In this present study according to the student users' SNS behavior; we mainly consider the interpersonal communication which allows people join in different chatting groups where you can meet new people as the independent variable to interact with social capital. For interpersonal communication, we consider there are two main behaviors that users will do on SNS. First is to keep communicating with the friends already known, and another is to make new friends on SNS. Thus, following hypotheses are presented:

<Hypothesis 2> Interpersonal communication on SNS will positively influence individual's

bridging social capital.

- <Hypothesis 2a> Interpersonal communication with old friends on SNS will positively influence individuals' bridging social capital.
- <Hypothesis 2b> Interpersonal communication for making new friends on SNS will positively influence individuals' bridging social capital.

With the developing of technology, now the SNS is being sophisticated and fully featured as well. Users use SNS not only for making new friends and building new relationships but also keeping in touch with the old friends and maintain the existed relationships. However, with the deep communication, users with a weak tie may trust each other and become close friends. This way we consider it is the transforming from weak tie to strong tie. What's more, because of the rise of WeChat use in China, now more and more parents are using WeChat as well. For the Chinese international students in South Korea, WeChat has been the main way for getting in touch with parents. Hence, we hypothesize:

- <Hypothesis 3> Intensity of SNS use will positively associate with individuals' bonding social capital.
- <Hypothesis 3a> The time spending on SNS will positively impact individuals' bonding social capital.
- <Hypothesis 3b> The number of friends on SNS will positively impact individuals' bonding social capital.
- <Hypothesis 3c> The attachment of SNS use will positively impact on individuals' bonding social capital.

Users through SNS to communicate or keep in touch with their close friends and the family members would help users to solve some problems, make important decisions and even get some job references. Chen (2011) highlighted that interpersonal communication on SNS positively influence individuals' bonding social capital. For the communication to make new friends, individuals could make friends with some people who have the similar interests and hobbies. Also, through interpersonal communications, users can make a relationship with topic experts, so they can obtain expert information. Based on this review the following hypotheses are developed:

- <Hypothesis 4> Interpersonal communication on SNS will positively influence individuals' bonding social capital.
- <Hypothesis 4a> Interpersonal communication with old friends on SNS will positively influence individuals' bonding social capital.

<Hypothesis 4b> Interpersonal communication for making new friends on SNS will positively influence individuals' bonding social capital.

# 3. Research Method

We consider the WeChat as a popular SNS to do this

present research. Each survey question on the questionnaire is presented in the measurement items in <Table 2>. Hyperlink of the online questionnaire was circulated on WeChat, which guaranteed us that all responders were WeChat users. Data were collected from 9<sup>th</sup> November to 23<sup>rd</sup> December of 2015 from 150 Chinese international students who attend Dongguk University, Dongguk University Gyeongju Campus, and Kyungpook National University in South Korea.

<Table 2> Measurement items

Factor	Code	Item	Reference		
Hours spent	s-time	On a typical day, about how much time do you spend on WeChat?			
# of friends	Friend	About how many total WeChat friends do you have?			
	IN1	WeChat is a part of my everyday activity.			
	IN2	I am proud of telling people I am using WeChat.	(2007); Li & Chen		
Attachment of SNS use	IN3	I feel out of touch when I have not logged into WeChat a day.	(2014)		
ONO USC	IN4 I feel I am part of the WeChat community				
	IN5	I would be sorry if WeChat is shut down.			
	ICA1	I use WeChat to keep in touch with my friends and/or classmates in the school. (by viewing their posts, leaving a message or responding their posts)			
IC with old friends	ICA2	I use WeChat to keep in touch with my good friends in my daily life.			
	ICA3	I use WeChat to get in touch with my old friends or classes mates.	Chen (2011)		
	ICB1	I use WeChat to seek some new friends who can share the same interests and hobbies.	,		
IC for making new friends	ICB2	I use WeChat to know some ones who know some particular topics and information.			
menas	ICB3	I use WeChat to meet some people whom I cannot meet by other ways.			
	BR1	Interacting with people on WeChat makes me interested in things that happen outside of school.			
Bridging Social	BR2	Interacting with people on WeChat makes me want to try new things.	Putnam (2000):		
Capital (BR)	BR3	Talking with people on WeChat makes me curious about other places in the world.	Williams (2006)		
(514)	BR4	Interacting with people on WeChat makes me feel like part of a larger community.			
	BR5	Interacting with people on WeChat makes me feel connected to the bigger picture.			
	BO1	There are several people on WeChat I trust to help solve my problems.			
	BO2	There is someone on WeChat I can turn to for advise about making very important decisions.			
	ВО3	There are several people on WeChat that I feel comfortable talking to about intimate personal problems.			
Bonding Social	BO4	When I feel lonely, there are several people on WeChat I can talk to.	Putnam (2000);		
Capital (BO)	BO5	If I needed an emergency loan of 180,000 WON, I know someone on WeChat I can turn to.	Williams (2006)		
	BO6	The people I interact with on WeChat would put their reputation on the line for me.			
	BO7	The people I interact with on WeChat would be good job references for me.			
	BO8	The people I interact with on WeChat would share their last dollar with me.			
	BO9	I know several people on WeChat well enough to get them to do something important.			
	SE1	On the whole, I am satisfied with myself.			
0.15	SE2	I am able to do things as well as most other people.	Ellison et al.		
Self-esteem (SE)	SE3	I feel I am proud of myself.	(2014); Rosenberg		
()	SE4	I feel that I'm a person of worth.	(1989)		
	SE5	I take a positive attitude toward myself.			

<Table 3> Demographic characteristics (N=129)

Category	Range	Frequency	Percentage
Gender	Male	47	36.4%
Geridei	Female	82	63.6%
	Less than 20	23	17.8%
A	20-29	105	81.4%
Age	30-29	1	0.8%
	Over 40	0	0%
	Freshman	43	33.3%
	Sophomore	11	8.5%
Grade	Junior	24	18.6%
	Senior	18	14.0%
	Master/Ph.D	33	25.6%
	Less than 1 year	41	31.8%
	1-2 years	55	42.6%
Years in	2-3 years	24	18.6%
Korea	3-5 years	5	3.9%
	More than 5 years	4	3.1%
	Less than 1 month	0	0%
	1-6 months	2	1.6%
WeChat	6-12 months	2	1.6%
Experience	More than 1 year	32	24.8%
	More than 3 years	93	72.1%
	≤5	16	12.4%
	6-10	23	17.8%
NO. of Offline	11-20	17	13.2%
Friends	20-30	13	10.1%
	>30	60	46.5%
	TOPIK I — level 1	14	10.9%
	TOPIK I — level 2	17	13.2%
	TOPIKII— level 3	44	34.1%
TOPIK Level	TOPIKⅡ— level 4	33	25.6%
	TOPIKⅡ— level 5	16	12.4%
	TOPIKII— level 6	5	3.9%
	< 30 minutes	10	7.8%
Time	30-60 minutes	18	14.0%
Spending on	1-2 hours	30	23.3%
WeChat on a typical day	2-3 hours	20	15.5%
typical day	> 3 hours	51	39.5%
	≤ 10	0	0%
	11-50	11	8.5%
	51-100	19	14.7%
			,0
NO (T	101-150	19	14.7%
NO. of Total	101-150		14.7% 21.7%
NO. of Total Friends on WeChat		19 28 14	21.7%
Friends on	101-150 151-200	28	21.7% 10.9%
Friends on	101-150 151-200 201-250	28 14	21.7%

# 4. Results and Analyses

# 4.1. Demographic Characteristics

The original file has 139 data; we deleted 10 poor data and reanalyzed using the statistics packages. The demographic characteristics of these 129 responses are shown in <Table 3>.

<Table 4> Exploratory factor analysis and internal consistency

Item	<b>TF</b> LA	-	actor		ysis and	u iiileii	EV	V (%)	
	0.191	Ι	0.678		0.086	0.286	LV	(70)	
IN1								6 8.488	0.848
IN2	0.145		0.574		077	0.357			
IN3	0.170	0.012			0.170	0.118	2.546		
IN4	0.222	0.041		0.086	0.214	0.349			
IN5	0.265	0.101	0.564	0.050	0.369	0.258			
ICA1	0.063	0.117	0.333	0.052	0.175	0.788			
ICA2	0.124	0.025	0.368	0.139	0.199	0.772	1.049	3.496	0.902
ICA3	0.186	0.117	0.327	0.217	0.172	0.749			
ICB1	0.300	0.152	0.082	0.747	0.161	0.220			
ICB2	0.186	0.158	0.071	0.811	0.237	0.239	1.691	5.636	0.844
ICB3	0.116	0.314	0.260	0.679	0.244	101			
BR1	0.126	0.246	0.156	0.421	0.627	0.296			
BR2	0.142	0.207	0.183	0.373	0.673	0.304			
BR3	0.232	0.367	0.235	0.130	0.708	0.096	1.294	4.312	0.905
BR4	0.407	0.089	0.208	0.399	0.533	0.152			
BR5	0.370	0.317	0.241	0.348	0.553	0.103			
BO1	0.650	0.295	0.006	110	0.406	0.228			
BO2	0.773	0.112	0.118	0.056	0.317	0.120			
ВО3	0.744	0.183	0.129	0.054	0.342	0.199			
ВО4	0.624	0.122	082	0.373	0.230	0.350			
BO5	0.769	0.205	0.053	037	026	0.316	12.736	42.454	0.934
BO6	0.725	0.107	0.363	0.315	046	0.000			
BO7	0.685	0.215	0.332	0.324	0.171	110			
BO8	0.794	0.137	0.256	0.221	0.013	068			
BO9	0.806	0.125	0.243	0.226	0.097	002			
SE1	0.144	0.779	0.006	0.204	0.071	0.163			
SE2	0.171	0.855	0.182	0.069	0.047	0.029			
SE3	0.265	0.834			0.163	0.025	3.005	10.014	0.918
SE4	0.166	0.842		0.034	0.229	0.010			
SE5	0.084	0.803		0.182	0.173	0.108			
					Chronh				

<sup>\*</sup>EV: Eigen Value; V: Variance; CA: Chronbach's Alpha

# 4.2. Reliability and Validity

Three factors with eigenvalue over 1.0 are extracted from exploratory factor analysis by using SPSS software as shown in <Table 4>. For Cronbach's Alpha, it is estimated to acquire the measure of reliability of the question items (Henson, 2001). A widely advocated level of adequacy for the coefficient alpha has been at least 0.70 (Cortina, 1993). <Table 4> proves that all variables' Cronbach's alpha values are more than 0.7. And according to the Harman's onefactor test, we get 40.306% of total variance which is less than 50%. So we can say the common method bias of this present study is not terrible. Moreover, the variance (%) of bonding social capital (42.454) is much higher than other variables. As can be seen, "bonding" variable has more items than other variables, and considering the research model is much simple, the common method bias would occur.

<Table 5> shows the evidence of convergent and discriminant validity. A construct attests the convergent validity if the composite reliability (CR) is greater than 0.7, and the average variance extracted (AVE) exceeds 0.5 (Hilder et al., 2007). From the <Table 5>, we can see that all CR values of the constructs ranged from 0.678 to 0.924 that all values exceed the acceptance level of 0.7, and the AVE values are greater than 0.5. Hence, the convergent validity is assured. For the discriminant validity, of each construct, which is to test if each construct differs, AVE and inter-construct correlation are compared (Moutinho & Hutcheson, 2011). <Table 5> shows the diagonal value in boldface for each construct is higher than the off-diagonal elements representing correlation. Hence, we can also indicate our measurement variables have discriminant validity.

<Table 5> Discriminant validity indices

Factor	Average	CR	AVE	IN	ICA	ICB	BR	ВО	SE
IN	3.616	0.788	0.540	0.735					
ICA	4.121	0.924	0.754	0.755	0.868				
ICB	2.889	0.778	0.650	0.502	0.486	0.806			
BR	3.450	0.882	0.631	0.636	0.617	0.770	0.794		
ВО	3.440	0.914	0.606	0.575	0.407	0.574	0.660	0.778	
SE	3.766	0.678	0.678	0.303	0.267	0.476	0.610	0.475	0.824
Diagona	Diagonal value (in boldface) are the square root of AVE.								

#### 4.3. Hypothesis Test

This present study mainly explores the relationship between the intensity of SNS use, the interpersonal communication on SNS, and users' bridging and bonding social capital. For better objective reflection, we considered the gender, TOPIK, number of offline friends and user's self-esteem as the control variable. And for testing the

intensity of SNS use, we adopt two self-reported assessments of SNS use, and a series of Likert-5-scale attitudinal questions are concluded (Ellison et al., 2007). In <Table 6> and <Table 7>, three models are tested respectively with different contents. Model 1 is the testing of four control variables. And among the four control variables, only user's self-esteem has a positive impact on both bridging and bonding social capital much significantly. Model 2 is the testing we consider the two self-reported assessments of SNS use in, and they are time spending on SNS and a total number of friends on SNS. For the result, only user's self-esteem and the amount of time spent on SNS on a day have a positive impact on both bridging and bonding social capital. Model 3 is the testing of all variables as discussed in previous analyses. Model 3 provides the result of this research hypothesis as well.

In the regression predicting WeChat bridging social capital, the control variables accounted for 2.72% of the variance, with self-esteem ( $\beta$ =0.512, p<0.001) emerging as significant, such that users with higher self-esteem reported higher perceived bridging social capital. The addition of the SNS usage variables: time spending on SNS and the total number of friends on SNS, increased the R2 to 0.296, with spending time on SNS ( $\beta$ =0.504, p<0.001) positively predicting bridging social capital. However at last, the addition of intensity of SNS usage behavior: attachment of SNS use ( $\beta$ =0.238, p<0.01), interpersonal communication with old friends ( $\beta$ =0.179, p<0.05), and interpersonal communication with new friends ( $\beta$ =0.451, p<0.001) increased the model's R<sup>2</sup> to 0.625 and provided support for H1c and H2 (concluding H2a and H2b). Furthermore, <Table 6> shows the control variables are significantly influencing the result of our analysis. When we are testing Model 1 of control variables with the bridging social capital, the adjusted R2 is 0.272; when we test Model 2, we got adjusted R2 is 0.296; and when test Model 3, the R<sup>2</sup> is 0.625. From Model 1 to Model 3, the value of R<sup>2</sup> increased. This proves the control variables are significant in this present study for testing bridging social capital (see <Table 6>).

The following <Table 7> shows the results of the hypothesis of this study.

In the regression predicting WeChat bonding social capital, the control variables accounted for 1.91% of the variance, with self-esteem ( $\beta$ =0.437, p<0.001) emerging as significant, such that users with higher self-esteem reported higher perceived bonding social capital. The addition of the SNS usage variables: time spending on SNS and total number of friends on SNS, increased the R² to 0.279, with spending time on SNS ( $\beta$ =0.335, p<0.001) positively predicting bonding social capital. Finally, the addition of intensity of SNS usage behavior: attachment of SNS use ( $\beta$ =0.288, p<0.05), interpersonal communication with new friends ( $\beta$ =0.232, p<0.05) increased the model's R² to 0.404 and provided support for H3c and H4b. Furthermore, <Table 8> shows the control variables are significantly influencing the

<Table 6> Regression of bridging social capital

	Model 1: Controls	Model 2: Spending time and total friends	Model 3: Intensity & Interpersonal communication
	Standardize	d Coefficient (t-value)	
Gender	-0.065 (-0.830)	-0.091 (-1.171)	0.048 (0.781)
TOPIK	-0.032 (-0.416)	-0.065 (-0.842)	-0.053 (-0.922)
NO. of Offline Friends	0.069 (0.899)	0.046 (0.594)	0.078 (1.366)
Self-esteem	0.512 (6.611)***	0.504 (6.510)***	0.198 (3.095)**
Time Spending on SNS		0.173 (2.163)*	-0.117 (-1.735)
NO. of Friends on SNS		0.482 (0.631)	0.089 (1.438)
Attachment of SNS use			0.238 (2.737)**
ICA			0.179 (2.388)*
ICB			0.451 (5.958)***
Adjusted R <sup>2</sup>	0.272	0.296	0.625
F(sig.)	12.985 (0.000)	9.952 (0.000)	24.664 (0.000)

<sup>\*</sup>p<0.05; \*\*p<0.01; \*\*\*p<0.001

<Table 7> Hypothesis result

Hypothesis		Path	Standard Coefficient (t-value)	Result
	H1a	Time spending on SNS →Bridging Social Capital	-0.117 (-1.735)	Not Supported
H1	H1b	NO. of Friends on SNS →Bridging Social Capital	0.089 (1.438)	Not Supported
	H1c	Attachment of SNS Use →Bridging Social Capital	0.238 (2.737)**	Supported
110	H2a	Interpersonal Communication with Old Friends → Bridging Social Capital	0.179 (2.388)*	Supported
H2	H2b	Interpersonal Communication for Making New Friends → Bridging Social Capital	0.451 (5.958)***	Supported

<Table 8> Regression of bonding social capital

	Model 1: Controls	Model 2: Spending time and total friends	Model 3: Interpersonal communication
	Standardiz	ed Coefficient (t-value)	
Gender	-0.061 (-0.735)	-0.094 (-1.202)	-0.015 (-0.199)
TOPIK	0.061 (0.757)	-0.018 (0.234)	0.004 (0.049)
NO. of Offline Friends	0.064 (0.792)	0.053 (0.673)	0.079 (1.107)
Self-esteem	0.437 (5.349)***	0.449 (5.742)***	0.257 (3.192)**
Time Spending on SNS		0.335 (4.142)***	0.122 (1.434)
NO. of Friends on SNS		-0.095 (-1.154)	-0.076 (-0.973)
Attachment of SNS use			0.288 (2.627)*
ICA			0.035 (0.371)
ICB			0.232 (2.434)*
Adjusted R <sup>2</sup>	0.191	0.279	0.404
F(sig.)	8.569 (0.000)	9.273 (0.000)	10.639 (0.000)

<sup>\*</sup>p<0.05; \*\*p<0.01; \*\*\*p<0.001

<Table 9> Hypothesis result

Hypothesis		Path	Standard Coefficient (t-value)	Result
	Н3а	Time spending on SNS →Bonding Social Capital	0.122 (1.434)	Not Supported
H3	H3b	NO. of Friends on SNS → Bonding Social Capital	-0.076 (-0.973)	Not Supported
	Н3с	Attachment of SNS Use → Bonding Social Capital	0.288 (2.627)*	Supported
	H4a	Interpersonal Communication with Old Friends → Bonding Social Capital	0.035 (0.371)	Not Supported
H4	H4b	Interpersonal Communication for Making New Friends → Bonding Social Capital	0.232 (2.434)*	Supported

result of our analysis. When we are testing Model 1 of control variables with the bonding social capital, the adjusted  $R^2$  is 0.191; when we test Model 2, we got adjusted  $R^2$  is 0.279; and when test Model 3, the  $R^2$  is 0.404. From Model 1 to Model 3, the value of  $R^2$  increased. This proves the control variables are significant in this present study for testing bonding social capital. Full results are presented in <Table 8>.

The following <Table 9> shows the results of the hypothesis of this study.

#### 5. Conclusion

This paper has underlined the importance of intensity of WeChat use and interpersonal communication that impact Chinese international students' bridging and bonding social capital on WeChat. In this study, we systematically analyzed the demographic characteristics of our responders. In addition, many study the social capital on some SNSs such as Facebook and RenRen (e.g., Li & Chen, 2014); however, there is less study has empirically researched the relationships between WeChat use and social capital. This study has enriched the research content of SNS. Meanwhile, we consider the gender, self-esteem, language proficiency and the number of offline friends as the control variables when we analyzed the Chinese international students' bridging and bonding social capital in Korea. To consider the language proficiency and the number of offline friends as the control variables contribute to the research of bridging and bonding social capital, and that helps to avoid the different level of obtaining and maintaining the social capital because the Korean language proficiency. Based on Chen (2011), interpersonal communication is defined as keeping in touch with old friends and communicating with new friends. In this present study, we adopted the interpersonal communication. We hope that our research will be beneficial and constructive in solving the difficulty of gaining social capital on WeChat for those international students.

## 5.1. Theoretical Implications

For international students, spending time on WeChat or having a large number of friends on WeChat does not influence their social capital. In order to gain much more

social capital, students should try to integrate themselves into the WeChat community. Communicating with friends helps to accumulate students' social capital. Also, students should try to make new friends with who shares the same commonalities. Briefly, students should try to find some new people who have the same interests and hobbies as they have or some people who know some particular topics and information that we care on WeChat, and then, make friends with them and talk to them. Communication is highly proved as the key to gain social capital on WeChat for Chinese international students in South Korea. These findings add to a growing body of the literature on our understanding of social capital on SNS use. This empirical study explored the relationship between SNS usage and social capital from Chinese international students in South Korea. In addition, we have synthetically analyzed the intensity of international WeChat: students using and the interpersonal communication, which is one of the users' preferences of using SNS, is systematically described as communication with old friends and communication for making new friends. In this respect of intensity of SNS use, only the extent of using SNS has a positive impact on both bridging and bonding social capital. Both communications with old friends and for making new friends are positively associated with students' bridging social capital; but only communication for making new friends have a positive influence on bonding social capital, not bridging social capital.

### 5.2. Practical Implications

Through SNS and interpersonal communication inside the enterprise, employees can increase their resources within the enterprise. Morrison (2002), in order to increase employees' intensity of SNS usage and interpersonal communication to enhance their social capital, once proposed the networks inside the organization which can be divided into formal network and informal network. The formal network belongs to the relation under the formal organizational structure, and composed of regulations, whose interpersonal interaction is arranged by the organization instead of personal willingness. The informal network is divided into information network and friends network. The information network refers to the network established by the key actor for the purpose of interest, for example, the key actor can obtain useful career-related information in the organization through the information network. On the other hand, friends network can offer emotional support and affiliation to the key actor. Different networks (such as information network, friends network and working flow network) have different roles in affecting employees' working performance and peripheral performance.

#### 5.3. Limitations and Future Research

Our work clearly has some limitations. Despite this, we believe this work could be a springboard for studying the students' or other users' social capital on WeChat. The most important limitation is a result of the factor that we examined the small sample size. As there are so many universities with more Chinese international students in South Korea, we only send the questionnaire to three

universities. In addition, we didn't examine the number of Korean friends the students have on WeChat. Because WeChat is mainly used in China, and to know if users' Korean friends also use WeChat to keep in touch would provide us a complete analysis.

These findings suggest the following directions for future research: first of all, to collect the data from more universities as a big sample size. Then the measurement of testing Korean users can be also contained in the study. Furthermore, with the development of the research on social capital on SNS, different methodologies of measuring it will be developed as well. In the future study, different methods can be used and different dimensions can be concerned while testing and analyzing this topic.

### References

- Chen, Y. Q. (2011). The relationship between use of social network sites and individual social capital. Wuhan: Thesis for Doctorate in Huazhong University of Science and Technology.
- Cho, Y. S., Heo, J. Y., & Youn, M. K. (2012). Korean customer attitudes towards SNS shopping. *Journal of Distribution Science*, 10(8), 7-14.
- Cortina, J. M. (1993). What is coefficient alpha?: An examination of theory and applications. *Journal of Applied Psychology*, 78(1), 98.
- Donath, J., & Boyd, D. (2004). Public displays of connection. *BT Technology Journal*, 22(4), 71-82.
- Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook "friends": Social capital and college students' use of online social network sites. *Journal of Computer-Mediated Communication*, 12(4), 1143-1168.
- Ellison, N. B., Vitak, J., Gray, R., & Lampe, C. (2014). Cultivating social resources on social network sites: Facebook relationship maintenance behaviors and their role in social capital processes. *Journal of Computer-Mediated Communication*, 19(4), 855-870.
- Henson, R. K. (2001). Understanding internal consistency reliability estimates: A conceptual primer on coefficient alpha. *Measurement and Evaluation in Counseling and Development*, 34(3), 177.
- Hilger, A. M., Ghijsen, P. W., & Semeijn, J. (2007). Antecedents of logistics performance and economic performance: The case of radio frequency identification. *International Journal of Business Research*, 7(6), 57-66.

- Landry, R., Amara, N., & Lamari, M. (2002). Does social capital determine innovation? To what extent?. *Technological Forecasting and SocialChange*, 69(7), 681-701.
- Lazarova, M., & Taylor, S. (2009). Boundaryless careers, social capital, and knowledge management: Implications for organizational performance. *Journal of Organizational Behavior*, 30(1), 119-139.
- Li, X., & Chen, W. (2014). Facebook or Renren? A comparative study of social networking site use and social capital among Chinese international students in the United States. *Computers in Human Behavior*, 35(June), 116-123.
- Li, Y. Y. (2011). Research of relation between using behavior and social capital acquirements in social-networking site. Lanzhou: Thesis for Doctorate in Lanzhou University.
- Mayr, S. (2015). Corporate social responsibility in SMEs: the case of an Austrian construction company. *International Journal of Business Research*, 15(2), 61-72.
- Morrison, E. W. (2002). Newcomers' relationships: The role of social network ties during socialization. *Academy of Management Journal*, 45(6), 1149-1160.
- Moutinho, L., & Hutcheson, G. D. (ed.). (2011). *The SAGE dictionary of quantitative management research.* London. Sage.
- Pérez-Luño, A., Medina, C. C., Lavado, A. C., & Rodríguez, G. C. (2011). How social capital and knowledge affect innovation. *Journal of Business Research*, 64(12), 1369-1376.
- Putnam, R. D. (2001). Bowling alone: The collapse and

- revival of American community. New York: Simon and Schuster.
- Schijns, J. M. C., & Smit, E. G. (2010). Custom magazines: where digital page-turn editions fail. *Journal of International Business and Economics*, 10(4), 24-37.
- Shin, M. M., & Joo, J. (2015). Relationships between customer socialization, customer participation, and loyalty of on-line service providers. *Journal of Distribution Science*, 13(11), 15-22.
- Wang, Y., Lee, J. H., & Kim, H. K. (2014). The Influence of SNS Characteristics on Tourist Attractions Preference: Focus on China. *Journal of Distribution Science*, 12(9), 53-63.
- Wellman, B., Haase, A. Q., Witte, J., & Hampton, K. (2001).

  Does the Internet increase, decrease, or supplement social capital? Social networks, participation, and community commitment. *American Behavioral Scientist*, 45(3), 436-455.
- Won, D. H. (2016). An analysis on antecedents path of export performance and moderating effects of social capital in materials and components SMEs. *Journal of Distribution Science*, 14(2), 135-144.
- Yendaw, E. (2014). Does international migration represent a mechanism for status enhancement or status loss? A study of international return migrants to Ghana. *Journal of International Business and Economics*, 7(1), 10-24.