Examining SNS Users’ Citizenship Behavior: A Social Capital Perspective

Jung-Eun Son
White Information Networking, titicaca123@gmail.com

Hee-Woong Kim
Yonsei University, kimhw@yonsei.ac.kr

Follow this and additional works at: http://aisel.aisnet.org/pacis2013

Recommended Citation
http://aisel.aisnet.org/pacis2013/166
EXAMINING SNS USERS’ CITIZENSHIP BEHAVIOR:
A SOCIAL CAPITAL PERSPECTIVE

Jung-Eun Son, White Information Networking, Korea, titicaca123@gmail.com
Hee-Woong Kim, Graduate School of Information, Yonsei University, Korea, kimhw@yonsei.ac.kr

Abstract

Social Network Service (SNS) has secured lots of users, and its scale and social influence are getting bigger and more powerful. At the same time, however, phenomena that cause social disruption also have increased with spreading false rumors on SNS and posting abusive comments. In order to resolve these negative phenomena, the research inquires into the citizenship behavior of SNS users and examines it from the social capital theory perspective. The research model suggests that the structural, relational, and cognitive dimensions of social capital have impacts directly and indirectly on the SNS citizenship behavior. This study further examines how the key characteristics of SNS in terms of customer value theory affect the SNS social capital. We test the research model by collecting survey data: Facebook (N=148), Twitter (N=153), and the Internet forums (N=163). The testing results explain that the structural, relational, and cognitive dimensions of social capital have significant effects on the SNS citizenship behavior directly and indirectly. The testing results also explain that three key characteristics (responsiveness, communication support, and playfulness) of SNS affect the structural dimension of social capital and then the cognitive and relational dimensions. The study contributes to the literature as it establishes the concept of SNS Citizenship Behavior and examines it from the social capital theory perspective. The findings also have practical implications because it provides guidance on how to develop SNS features and manage SNS for the citizenship behavior of its users, which is essential for the harmonious and productive SNS usage of people.

Keywords: Social Network Service, SNS Citizenship Behavior, Social Capital Theory, Customer Value Theory
INTRODUCTION

Social Network Service (SNS) is online meeting places where people focus on social networks or relations among people who, for example, share information, activities and talk about various issues. The beginning of SNS in South Korea has existed to the late 1990s since Internet communities became popular. Those communities gather users interested in photography, films, sports, beauty, celebrity fan clubs, etc. As tablets and smartphones grow in popularity, we can expect to see this phenomenon would continue and evolve as the boom in SNS where people communicate with each other and discuss diverse subjects. The issues in online communities are shared in real-time and spread quickly from personal media to mass media which forms public opinion. Facebook, one of notable worldwide SNS, exceeds 1 billion users each month in 2012 and it means that Facebook now reaches one out of every 7 people on the planet. In South Korea, the number of Facebook users is about 536 million and Twitter users are 544 million. Also, about 3290 million people, the 70 percentage of South Korea Internet users, belong to online communities or internet forums (e.g. Daum cafe, Naver cafe, Nate club, and DCInside).

The spread of SNS appears to have a negative phenomenon as well as a positive phenomenon. For example, abusive comments, false rumors and Internet jargon are spreading via SNS quickly. Cyber-bullying and cyber-tailing through SNS are also becoming a social problem (Neves and Pinheiro 2010). Thus, we should consider the influence of SNS, both positive and negative.

Despite the growing phenomenon of SNS, there is a lack of research on what motivates SNS members to post positive comments or participate in online activities with positive attitude. Previous research on SNS has mainly addressed issues of defining function of SNS (Boyd & Ellison 2008; Richter & Koch 2008), attracting SNS members (Kwon & Wen 2010; Lin & Lu 2011), enhancing business activities (Uhrig 2010, Syed-Ahma 2010). Of particular interest in this literature is the study by Lin & Lu (2011), who noted that social capital on SNS has influence on continued intention to use SNS. However, the missing in the previous research is antecedents of social capital on SNS and type of SNS. For this reason, we need more deeply theoretical viewpoints in examining SNS users’ friendly behavior to each others, called as SNS citizenship behavior.

The term ‘SNS citizenship behavior’ first appears in this research. SNS citizenship behavior is a form of organizational citizenship behavior (Organ et al. 2006) because it was modified to fit into SNS context. In this study, we consider both quantity and quality of social network which is essential for continuous interacting, making friends, and forming bonds with each other. For this reason, we need more deeply theoretical viewpoints in examining SNS citizenship behavior based on social capital theory (Nahapiet & Ghoshal 1995). Social capital contains both bridging and bonding social network and consider the quality of social network such as trustworthiness among members. Previous social capital research is lack of developing measurement instrument of social capital dimension applying quantitative research. Nahapiet and Ghoshal (1995) suggested three dimensions of social capital which are structural, cognitive, and relational dimension. Accordingly, we identify and propose these three dimensions in SNS context, which prove that accumulating social capital is a key driver of SNS citizenship behavior.

This study has two broad objectives: (1) develop a model to explain SNS citizenship behavior in terms of social capital dimension and its antecedents and (2) validate the model through a survey of members on various types of SNS. The proposed model was tested on three types of SNS, Facebook, Twitter, Internet forum (e.g. Daum Agora, Nate Pann, and DCInside). This study aims to advance our understanding of social capital and SNS citizenship behavior in SNS context. It also contributes to establish the concept of SNS citizenship behavior and examines the critical relationships based on the social capital theory. Moreover, the study can inform SNS providers on how to manage service and communication for continuous service operations.

CONCEPTUAL BACKGROUND

2.1 Social Network Service

Social Network Service (SNS) is web-based application service that enables users to build network of relation and keep in touch with other users within bounded system (Richter & Koch 2008, Boyd &
SNS provides means for users to comment or upload contents, such as pictures and movies, which enable users to share interests, activities, backgrounds, or real-life connections with others.

There have been some researches on the definition of SNS. Richter and Koch (2008) proposed a list of six basic functionalities of SNS. First, users can fill in the identity information and manage access rights which are allowed to see, named ‘identity management’. Second, the system searches and recommends the network according to different criteria (e.g., name, school, company, and contacts), named ‘expert finding’. Third, ‘context awareness’ connects users who are common contacts, common interests, the same university or the same company one has worked at, which contributes to creating common trust among users. Fourth, users can tag people or set access restriction to profile, named ‘contact management’. Fifth, ‘network awareness’ means that users recognize the activities in the personal network supported by functionalities such as News feeds, Tweets, and birthday reminder. The last one is ‘exchange’ which means users exchange information directly (e.g. messages) or indirectly (e.g. photos or messages via bulletin boards). These six functionalities are composed of social networking based on information technology and each of them is combined as necessary. Boyd and Ellison (2010) emphasized two features of SNS. First, users can build network and keep in touch with other users within the service. Second, the service enables users to accumulate and bond social network. Although the key definition and technological features of SNS are fairly consistent, there are many kinds of SNS sites which have each own communication tool, culture, mobile connectivity, and information sharing. Thus, the classification of wide variety of SNS is difficult to specific standards.

<table>
<thead>
<tr>
<th>Type</th>
<th>Interest-oriented SNS</th>
<th>Relation-oriented SNS</th>
<th>Mixed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concept</td>
<td>Online service where people try to network for sharing information with others</td>
<td>Online service where people network with as many people as possible to build or maintain friendship</td>
<td>Online service where people network with other members and sharing information at the same time</td>
</tr>
<tr>
<td>Feature</td>
<td>Possible to conceal one’s identity</td>
<td>Need to reveal one’s identity</td>
<td>Need to reveal one’s identity</td>
</tr>
<tr>
<td>Example</td>
<td>Youtube, Internet forums</td>
<td>Facebook, Cyworld</td>
<td>Twitter, Foursquare</td>
</tr>
</tbody>
</table>

Table 1. Types of SNS

In this study, we categorized three types of SNS in broader sense, focusing on intention to use SNS (see Table 1). First, some users primarily want to conceal their identity and share information on SNS which is useful or interesting, we called it ‘Interest-oriented SNS’. The definition of Interest-oriented SNS is online service where people try to network for sharing interesting information with others. Two notable examples in South Korea are Youtube and Internet forums (e.g. Daum Agora\(^1\), Nate Pann\(^2\), and DCInside\(^3\)). Second, some users mainly want to make friends whom they already knew or never met before in offline place and keep in touch with them on SNS, we called it ‘Relation-oriented SNS’. The definition of relation oriented SNS is online service where people network with as many people as possible to build or maintain friendship. Two famous examples in South Korea are Facebook\(^4\) and Cyworld\(^5\). In this type of SNS users need to reveal their identity. Third, some users not only want to build relation but also to share information at the same time, we called it ‘Mixed’. The definition of mixed SNS is online service where people network with other members and sharing information at the same time.

---

1. http://agora.media.daum.net/
The main examples in South Korea are micro-blogging service such as Twitter\textsuperscript{6}, Foursquare\textsuperscript{7}, and Me2day\textsuperscript{8}. In this type of SNS users also need to reveal their identity.

### 2.2 SNS Citizenship Behavior

Organizational citizenship behavior (OCB) is pro-social behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization (Organ 1988). There are three main features of OCB in the conceptualization (Organ et al. 2006; Kim et al. 2010). First, OCBs are discretionary behaviors and are performed by employees as a result of personal choice. Second, OCBs are voluntary actions that help another person without a work-related problem. Third, OCBs contribute positively to the performance of target organization. OCB includes both intra-role and extra-role, which motivate employees perform at their own discretion (Organ et al. 2006). In a workplace context, as a researcher have recognized achievement of organization is not explained fully by employee’s official behaviors, they have taken interest in effects or motivations of extra-official behaviors. Thus, the organization atmosphere which motivates OCB, a creative, active, and voluntary behavior, is important, because OCB is based on interaction, organizational supports, and trust among members without a work-related action.

There have been some researches on OCB in online context. Yu and Chu (2007) examined the antecedents that facilitate voluntary knowledge sharing in a virtual community. Kim et al. (2010) examined the influence of OCB in knowledge contribution in online communities and also found the factors of OCB. Kang and Kim (2009) examined the direct effect of OCB on information contribution in online communities, and the moderating effect of trust on the relationship between OCB and information contribution. Previous research on OCB thus showed the significant effects on user’s contribution in virtual communities.

Extending Organ et al. (2006)’s definition of OCB, we conceptualize SNS citizenship behavior to be configuration of the defining characteristics of users on SNS. SNS citizenship behavior is a form of OCB (Organ et al. 2006) because it is modified to fit into SNS context. Thus, in SNS context, SNS citizenship behavior (SCB) refers to individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the efficient and effective functioning of the SNS.

By comparison with the real world, SNS is somehow triggering superficial relationship among people. However, there are people on SNS who voluntarily try to share or spread information which others want to find or others can enjoy. Also, people put forward good suggestions if others need help on SNS. For users on SNS these discretionary acts have positive influence on the service of SNS and relationship quality among SNS members.

While it is meaningful to examine communicative culture on SNS based on theoretical lenses, there is a limitation in generating new knowledge. For this purpose, this study builds on social capital theory that can be used to explain both quantity and quality of relation on SNS.

### 2.3 Social Capital Theory

Social capital theory (Coleman 1988; Paxton 1999) explains total sum of resources in social relations based on trust or profits earned by obeying social norms. Coleman (1988) defines the social capital as “Social capital is explained by its function. It is not a single entity but a variety of different entities, with two elements in common: they all consist of some aspect of social structures, and they facilitate certain actions of actors—whether persons or corporate actors—within the structure.”

Many previous researches using social capital theory has examined three dimensions: structural dimension, cognitive dimension, and relational dimension (Cicourel 1973; Putnam 1995; Nahapet &

\textsuperscript{6} http://www.twitter.com/
\textsuperscript{7} http://www.foursquare.com/
\textsuperscript{8} http://www.me2day.net/
This study adopts these three dimensions to measure SNS citizenship behavior in SNS context. First, structural dimension of social capital is “the overall pattern of connections between actors - that is who you reach and how you reach them” (Nahapiet & Ghoshal 1998). This refers to the network of interpersonal configuration of linkages between people or units within network. Nahapiet and Ghoshal (1998) have proposed three sub-constructs of structural dimension: network ties, network configuration, and appropriate organization. Second, cognitive dimension of social capital is “the resources that enable share representations and interpretations among parties” (Cicourel 1973; Nahapiet & Ghoshal 1998). This is common understanding that facilitates interactions among actors within social network. Nahapiet and Ghoshal (1998) have suggested two sub-constructs of cognitive dimension: shared codes and languages, and shared narratives. Third, relational dimension of social capital is “assets that are created and leveraged through social relationships, including trust and trustworthiness, norms, obligations, and identifications” (Nahapiet & Ghoshal 1998). This refers to resources rooted in the interpersonal relationships that are created through a history of interaction among actors. Nahapiet and Ghoshal (1998) has proposed four sub-constructs of relational dimension: trust, norm of reciprocity, obligation, and identification. Although there are many forms of social capital, each of these forms has two characteristics in common: (1) they make up the perspective of the social structure, and (2) they facilitate behavior of individuals within structure (Coleman 1990).

Based on the three dimensions, consequence of social capital is mainly related to knowledge management (i.e. knowledge creation, knowledge sharing, knowledge transfer, knowledge contribution, and knowledge exchange) in workplace context (Chua 2002; Liu & Besser 2003; Hutchings & Michailova 2004; Huysman & De Wit 2004; Inkpen & Tsang 2005; Wasko & Faraj 2005; Chow & Chan 2008). Although each name of sub constructs is slightly different, the main premise of applying theory has common that accumulation of social capital has positive effect on consequences. For example, in organizational context, Bauer and Green (1996) suggested that social cohesion, social trust, and emotional connectedness affect organizational citizenship behavior. These three construct is similar to dimensions of social capital (structural, cognitive, and relational), so there is causal relationship between social capital and citizenship behavior.

The previous research has examined the effect of social capital in online communities. Wilman et al. (2001) and Hampton et al. (2003) and Resnick (2001) examined the effect of social capital which promotes social interaction on the Internet. They also confirmed that online social capital can promote social capital in a community. Shah et al. (2001) explored positive effect of social capital on the Internet which can encourage trust and participation among members. Donath and Boyd (2004) and Ellison and Lampe (2007) figured out online communities premise connecting members and accumulate social capital among them, which can enhance bonding and bridging relationship between members.

Prior research has missed antecedents that influence each dimension of social capital. This study builds on social capital theory in SNS context that can be used to explain SNS citizenship behavior and to reflect function of SNS.

2.4 Conceptual Framework

Figure 1 shows the main framework of this study. We will examine effect of social capital on SNS citizenship behavior. We will draw antecedents of social capital which help formation of social capital in SNS context from the customer value theory (Rintamaki et al. 2006).
Figure 1 shows the three conceptual formation of social capital (Lin & Lu 2011; Sun et al., 2012). As interacting with members within SNS context, members of SNS can connect each other. Within this social network, members can form shared value and build social trust or norms of reciprocity.

Figure 2. Dimensions of Social Capital and the Relationships

To examine antecedents of social capital in the SNS context, Figure 3 shows characteristics of SNS perceived by SNS users from customer value theory (Sheth et al., 1991; Rintamaki 2006). Value defines comprehensive concept in terms of affecting personal behavior which refers to one's opinion, belief, attitude, or interest. Sheth et al. (1991) classified customer value into five dimensions. First, functional value is “the perceived utility acquired from an alternative capacity for functional, utilitarian or physical performance” (Sheth et al., 1991, p.160). Second, social value is “the perceived utility acquired from an alternatives association with one or more specific social groups” (Sheth et al., 1991, p.161). Third, emotional value is “the ability of service to arouse feelings or affective state” (Sheth et al., 1991, p.161). Forth, epistemic value is “the perceived utility acquired when the service arouses curiosity, provides novelty and/or satisfies a desire for knowledge” (Sheth et al., 1991, p.162). Fifth, conditional value “occurs when there is a specific set of circumstances or specific situation facing the choice maker” (Sheth et al., 1991, p.163). Figure 3 shows the characteristics of SNS except conditional value which does not seem to correlate with the characteristic of SNS.
3 RESEARCH MODEL AND HYPOTHESIS

Based on the conceptual background outlined above, we propose the research model presented Figure 4. We identified four antecedents from the customer value theory (i.e., responsiveness, communication support, playfulness, and exploration), that could lead to three social capital dimensions. Three social capital dimensions, in turn, are expected to drive SNS citizenship behavior. We include the type of SNS as a moderator in the model.

Trust is the level of believing each other among community members. We define social trust as the level of trust among people developed during interaction on SNS as a variable of social capital level. Lin (2008) points out that trust are needed among community members for better interaction because an online community is not a place where people meet and communicate face to face. In other words, trust is a prerequisite factor for successful operation in online communities. For example, when operational rules in online communities are vague, it is required for members to behave responsibly and acceptably in general. If trust among people in believing and replying on each other is lack in online communities, there is a limit to activate sharing information in quality or in quantity, and this acts as a negative factor in long-term operation (Lin 2008). Under circumstances of trusting each other, it is much more likely for people to help others or ask others for help. This shows that community members share information and knowledge they have and try to participate actively in an online community activity when there is trust between individuals (Chiu et al. 2006). This is also applied to SNS, a massive online community. When trusting relationship is developed among community members, SNS members will behave with their
responsibilities in their personal activities and exhibit SNS citizenship behavior to participate and help each other in positive interaction. Based on this discussion, hypothesis 1 is proposed as follows.

**Hypothesis 1:** Social trust between SNS members has a positive impact on the SNS citizenship behavior.

Social capital in cognitive dimension suggested by Nahapiet and Ghoshal (1998) is divided into shared codes and languages, and shared narratives. Online communities premise on supporting the development of relationship among users who have common interests. In general, people also like to get along with those who have similar characteristics and values. From this perspective, we identify and define social value as the level at which individuals identify with other SNS members. Online community members tend to dedicate to a group that they feel a high level of emotional sympathy to. Moreover, when they agree to values and goals of the group they belong to, they show a tendency to participate in their group more actively. When they do, members are willing to engage in organizational citizenship behavior to achieve their group’s goal (Yu & Chu 2007). The emotional sympathy can be considered as a shared value among members in terms of cognitive social capital. Because community members interact and bond with one another in virtual space, the shared values can elicit significant activities of users. This shows that the more shared values they have with other people, the more positively they want to cognize their own social identities by interacting with each other or helping out others on SNS. This behavior represents they tend to participate in having an active and positive impact on SNS activities when agreeing with the shared values and goals on SNS. Hypothesis 2 can be suggested based on such debate as follows.

**Hypothesis 2:** Shared value with SNS members has a positive impact on the SNS citizenship behavior.

The shared values in cognitive dimension and social trust in relational dimension have not only a direct impact but also an indirect impact on SNS citizenship behavior (Sun et al. 2012). As mentioned earlier, it premises that online space supports the development of relationships among users who have common interests based on the interaction of community members. In such online communities, since they shared common values or cultures among users, they also develop deep trusted relations. In other words, when thoughts and interests are shared among community members, trust can be built (Tsai & Ghoshal, 1998). In marketing research, it is proved it is effective that SNS plays a role in supporting a building trusting relationship between a brand and a customer (Bernoff & Li 2008; Oweyang & Lovett 2010). Like this, existing research results assert that an online community is a channel that expands interaction among community members (Chiu et al. 2006; Lin 2008). This shows that online communication space like SNS not only strengthens interaction among the members but also has an influence on developing trusting relationship among them. Based on this discussion, hypothesis 3 is suggested as follows.

**Hypothesis 3:** Shared value with SNS members has a positive impact on the social trust.

Interaction among community members is the first step of developing any kind of relationships. On SNS, the subject of this research, it is considered that building a relationship among the members is the key point. We therefore identify social interaction in terms of relational social capital and define it as an individual perception relating to familiarity and frequency of communication with the SNS. Makela (2009) establishes empirically that there is knowledge share through interaction with one another in organizational research, and this influences social capital in cognitive dimension. He stresses out the importance of communication among team or community members, and at the same time he proves its effectiveness. Hagel and Singer (1999) point out in online community research that interaction among community members is important to accelerate the development of sympathy among them and of culture and values to share. In the study of Reysen et al. (2010), they prove that, in cognitive dimension, interaction of sharing contents, information, and activity records has an impact on the establishment of sympathy and common values in online communities. This interaction strengthens the relationships among online community members and also plays a role to help users do enthusiastic online community activities (Lin & Liu 2011). Therefore, the more frequently they communicate each other, the more they share and understand language, values, and community customs. As a result, they can improve their similar values and common goals in online communities (Tsai & Ghoshal 1998; Liao & Welsch 2005).

Based on this discussion, hypothesis 4 is proposed as follows.

**Hypothesis 4:** Social interaction with SNS members has a positive impact on the shared value.
Sharma (1999) proves that effective communication among community members has a positive impact on the establishment of trusting relationships in organizational research. Also, Krackhardt (1992) reveals that trusting relationship among the members in an organization is developed with the progress of communication that strengthens trustability. Li and Bernoff (2008) show that as individuals share information with one another or interact in discussion, they perceive if they are worth to trust each other, and in this process, trusting relationship is developed. Moreover, Powell (2009) points out that an online community is an interactional channel that lets the users exchange their information and opinions. Therefore, the users strengthen their bonds and develop trusting relationships in online communities (Lin & Lu 2011). On the basis of this study, hypothesis 5 is suggested.

Hypothesis 5: Social interaction with SNS members has a positive impact on the social trust.

It should be a premise that the success of informational technology depends on how many members participate in their online community. Online communities are based on users’ leaving comments about contents and information and getting their responses. A functional response is a significant feature of SNS where interaction with one another instantly has become possible. As a function of SNS, we identify and define responsiveness as the degree of how quickly and frequently SNS members respond to posted comments. Zhao and Lu (2012) find out in online community research that online community users, expecting those in the future will behave similar to them, share their knowledge. When people receive responses from others, they believe social exchange, similar to interactional relationship, is fair for compensating for the cost and time they spend on such action of social exchange (Blau 1964). Such balance continues to satisfaction of interaction. This is social interaction about frequency and intimacy among subjects of social exchange directly involved. In other words, on SNS where people communicate instantly, it connects them with others and increases mutual communication. With this logic, hypothesis 6 is proposed as follows.

Hypothesis 6: Responsiveness on SNS has a positive impact on the social interaction.

SNS is a service that supports developing relationships to manage networks focused on individuals. In other words, SNS is a service that offers individuals to connect to each other and interact with one another, premising the function of building relationships. It has different kinds and features depending on websites. This is because a degree of support for interaction they offer is diverse. This is interpreted as continuity of SNS is up to whether it supports social communication that users perceive. Therefore, offering communication service is considered as one of the important SNS features. This study defines communication support as the extent to which the SNS provides its members with the means, capability, and opportunity to communicate. Hagel (1999) proves in online community research that offering communication means such as online bulletin boards, chat rooms, email service, games, member search function, and discussion forum enhance communication and interaction among community members and establish intimate relationships. Kang et al. (2006) also demonstrate in their research that the more communication service online communities offer, the more active interaction among the members becomes. It becomes an opportunity for the members to develop more intimate relationships and to promote a sense of belonging to the entire community. Based on previous studies, because SNS is a communication tool to emphasize fast communication among the members, it is expected that communication tools are significant in the same vein as online community research. On the basis of this logic, hypothesis 7 is suggested as follows.

Hypothesis 7: Communication support on SNS has a positive impact on the social interaction.

Koh et al. (2003) point out that the main motive of using online community is pursuing information, reliving tenses, and escaping daily life as a tool of amusement. There always has been the demand for the Internet service that people enjoy between times in daily life. Therefore, amusement, an emotional feature, is considered as a main characteristic of SNS. This study defines playfulness as the enjoyment an individual perceives in interacting with others through SNS. Harden (2010) proves that amusement has a significant influence on intention to use and actual use. In other words, there is active interaction among community members who use SNS in order to share contents, information and comments for enjoyment. This is connected to the level of satisfaction of SNS itself. Orleans and Laney (2000) prove that enjoyable service offer becomes SNS users’ motivation. The more often people use SNS, the more actively they interact by establishing new relationships. With this discussion, hypothesis 8 is suggested as follows.
Hypothesis 8: Playfulness on SNS has a positive impact on the social interaction.

One of the main motivations of using SNS is to pursue information. This includes information acquisition to find out recent social issues, knowledge share to obtain information from others, bonds of sympathy to gain information of their interests, and self-discipline to help their careers directly and indirectly (Choi & Yang 2009). From this perspective, we identify and define exploration as the extent to discover new information and search for interesting information through SNS. Choi and Park (2011) find out empirically that a factor of pursuing information on SNS is important to establishing intimate relationships among SNS users. The users of SNS to obtain information become active in knowledge share activities. This plays a role in increasing frequency of communication among the members and interaction to feel a sense of closeness. It is expected that the establishment of intimate relationships is influenced as satisfaction with information exchange increases. Based on this discussion, hypothesis 9 is proposed as follows.

Hypothesis 9: Exploration on SNS has a positive impact on the social interaction.

There are many kinds of SNS sites which have each own communication tool, cultures, mobile connectivity, and information sharing. This study categorized three types of SNS; interest-oriented SNS, relation-oriented SNS, and mixed. Interest-oriented SNS (i.e. Youtube and Internet forums) is online service where people share interesting contents, such as postings, videos, and pictures. As users focus on contents, most of them don’t feel the need to reveal their identity. In contrast, relation-oriented SNS (i.e. Facebook, and Cyworld) is driven by the activity of online networking based on user’s profile. A characteristic in relation-oriented SNS is that network is formed by individuals who have already established trust among them in online or offline. By the extent of revealing one’s identity, there are differences in the type of SNS and then the method of communication. Thus, with this discussion, hypothesis 10 and 11 are suggested as follows.

Hypothesis 10: The effect of shared value on SNS citizenship behavior is different between the interest-oriented SNS and the relation-oriented SNS.

Hypothesis 11: The effect of social trust on SNS citizenship behavior is different between the interest-oriented SNS and the relation-oriented SNS.

4 RESEARCH METHODOLOGY

To test our hypotheses, we targeted SNS users. Facebook, Twitter, and three internet forums (i.e., Daum Agora, Nate Pann, and DCInside) were chosen for the study because they are successful SNS in terms of the number of members and daily usage in South Korea. Thus, they can provide insights into the best practices in this area.

As we discussed before, this study classified SNS into three types. First, we chose Facebook as the relation-oriented SNS. People join Facebook for free and upon registration they can create profiles with photos, lists of personal interests, contact information, and other personal information. Users can communicate with friends and other users through private or public messages and a chat feature. Second, we selected three internet forums, ‘Daum Agora’, ‘Nate Pann’, and ‘DCInside’ as the interest-oriented SNS. They are online discussion sites where people can hold conversations in the form of posted messages. Discussion forum is hierarchical or tree-like in structure: a forum can contain a number of sub-forums, each of which may have several topics. Within a forum's topic, each new discussion started, and can be replied by as many people as possible. Depending on the forum’s settings, users can be anonymous or have to register with the forum and then subsequently log in in order to post messages. On most forums, users do not have to log in to read existing messages. Third, Twitter was chosen as the mixed SNS. Tweets are publicly visible by default, but senders can restrict message delivery to just their followers. Users may subscribe to other users' tweets – this is known as following and subscribers are known as followers. We obtained 466 valid responses (276 male respondents and 190 female respondents, mean of age = 34.5): 148 from Facebook, 153 from Twitter, and 163 from Internet forums.

To develop our survey instrument, we adopted existing validated scales wherever possible. To access SNS citizenship behavior, we adapted scales from Yu & Chu (2007) by considering our research context
of SNS. To measure social capital, we developed scales from Chow and Chan (2008) and Lin and Lu (2011). The measures for responsiveness and playfulness were adapted from Zhao and Lu (2012). The measures for communication support were adapted from Kang et al. (2007). The measures for exploration were adapted from Chandon (2000) and Rintamaki (2010). The questionnaire employed the seven-point Likert scale (1= strongly disagree, 7= strongly agree).

5 DATA ANALYSIS AND RESULTS

5.1 Instrument Validation

Data analysis was conducted using the partial least squares (PLS) technique with Smart PLS 2.0. PLS was chosen because it analyses measurement and structural models with multi-item constructs that include direct, indirect, and interaction effects. Also, PLS is not as restrictive on the sample as covariance-based structural equation modelling (SEM) methods that require a separate multi normal data distributions (Jöreskog & Sörbom 1989). We conducted a confirmatory factor analysis to assess the convergent and discriminant validities of the survey instrument using PLS (Gefen & Straub 2005). As shown in Table 1 the standardized path loadings were all significant (t-value > 1.96) and greater than 0.7 (Gefen et al. 2000). The composite reliability (CR) and the Cronbach’s α or all constructs exceeded 0.7 (Hair et al. 1998). The average variance extracted (AVE) for each construct was greater than 0.5 (Fornell & Larcker 1981). The convergent validity for the constructs was supported.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Std. Loading of each Item</th>
<th>AVE</th>
<th>CR</th>
<th>Cronbach's α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsiveness (RES)</td>
<td>0.90, 0.90, 0.91</td>
<td>0.81</td>
<td>0.93</td>
<td>0.88</td>
</tr>
<tr>
<td>Communication support (CMS)</td>
<td>0.75, 0.83, 0.88</td>
<td>0.65</td>
<td>0.85</td>
<td>0.74</td>
</tr>
<tr>
<td>Playfulness (PLY)</td>
<td>0.89, 0.89, 0.91</td>
<td>0.80</td>
<td>0.92</td>
<td>0.88</td>
</tr>
<tr>
<td>Exploration (EXP)</td>
<td>0.80, 0.82, 0.82, 0.88</td>
<td>0.69</td>
<td>0.90</td>
<td>0.85</td>
</tr>
<tr>
<td>Social interaction (SIN)</td>
<td>0.86, 0.90, 0.89</td>
<td>0.78</td>
<td>0.91</td>
<td>0.86</td>
</tr>
<tr>
<td>Shared value (SVA)</td>
<td>0.81, 0.89, 0.86</td>
<td>0.73</td>
<td>0.89</td>
<td>0.81</td>
</tr>
<tr>
<td>Socials trust (STR)</td>
<td>0.86, 0.89, 0.90</td>
<td>0.78</td>
<td>0.91</td>
<td>0.86</td>
</tr>
<tr>
<td>SNS citizenship behavior (SCB)</td>
<td>0.84, 0.85, 0.81, 0.83, 0.74</td>
<td>0.65</td>
<td>0.92</td>
<td>0.87</td>
</tr>
</tbody>
</table>

Table 2. Results of Convergent Validity Testing

Next we assessed the discriminant validity of the measurement model. As shown in Table 4, the square root of AVE for each construct exceeded the correlations between the construct and other constructs (off-diagonal terms). Hence, discriminant validity of the instrument was established. As we found several correlations exceeding 0.6, we further tested constrained confirmatory factor analysis using LISREL. Compared with the model fit between constrained and based model, the based model fit is better than constrained model fit. Hence, discriminant validity of each instrument was proved.

<table>
<thead>
<tr>
<th>Mean S.D.</th>
<th>RES</th>
<th>CMS</th>
<th>PLY</th>
<th>EXP</th>
<th>SIN</th>
<th>SVA</th>
<th>STR</th>
<th>SCB</th>
</tr>
</thead>
<tbody>
<tr>
<td>RES</td>
<td>4.49</td>
<td>1.24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMS</td>
<td>4.82</td>
<td>1.01</td>
<td>0.52</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLY</td>
<td>5.18</td>
<td>1.11</td>
<td>0.46</td>
<td>0.60</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXP</td>
<td>4.97</td>
<td>1.02</td>
<td>0.43</td>
<td>0.62</td>
<td>0.65</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIN</td>
<td>4.59</td>
<td>1.24</td>
<td>0.61</td>
<td>0.65</td>
<td>0.49</td>
<td>0.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SVA</td>
<td>4.82</td>
<td>1.03</td>
<td>0.49</td>
<td>0.61</td>
<td>0.64</td>
<td>0.61</td>
<td>0.66</td>
<td>0.85</td>
</tr>
<tr>
<td>STR</td>
<td>4.6</td>
<td>1.16</td>
<td>0.59</td>
<td>0.59</td>
<td>0.51</td>
<td>0.49</td>
<td>0.76</td>
<td>0.70</td>
</tr>
<tr>
<td>SCB</td>
<td>4.73</td>
<td>1.07</td>
<td>0.53</td>
<td>0.64</td>
<td>0.58</td>
<td>0.58</td>
<td>0.68</td>
<td>0.66</td>
</tr>
</tbody>
</table>

Table 3. Descriptive Statistics and Correlations between Latent Variables

Note: Leading diagonal in bold font shows the squared root of AVE of each construct

5.2 Hypotheses Testing

We tested the hypotheses by applying the bootstrapping re-sampling technique. Figure 5 shows the results of the structural model. Social trust (H1) and shared value (H2) have significant effects on SNS
Citizenship Behavior, explaining 53 percent of its variance. Shared value (H3) and social interaction (H5) have significant effects on social trust, explaining 64 percent of its variance. Social interaction (H4) has a significant effect on shared value. Responsiveness (H6), communication supports (H7), and Playfulness (H8) have significant effects on social interaction. However, we could not find significant effects of exploration (H9) on social interaction. We further tested for multicollinearity among constructs. In all cases, the variance inflation factor was below 10 and condition index was less than 30, indicating that multicollinearity is not likely to distort testing results in our study (Hair et al. 1998).

Additionally, we examined the hypothesis by each type of SNS; relation-oriented SNS (Facebook), interest-oriented SNS (Internet forums such as Daum Agora, Nate Pann, and DCInside), and mixed SNS (Twitter). Path coefficients and significance values for the main effects are reported in Figure 6.

We then performed path comparison tests (see Table 4) between the two types of SNS (Relation-oriented SNS and Interest-oriented SNS) based on the guidelines suggested by Chin et al. (1998). The sample of relation-oriented SNS is Facebook users and the sample of interest-oriented SNS is users of Internet forums (i.e., Daum Agora, Nate Pann, and DCInside). The tests comparing relation-oriented SNS and interest-oriented SNS show that both shared value and social trust have a significantly different effect on the SNS citizenship behavior; i.e., The effect of shared value on SNS citizenship behavior is stronger the relation-oriented SNS than the interest-oriented SNS (H10). Also, the effect of social trust on SNS citizenship behavior is stronger the interest-oriented SNS than the relation-oriented SNS (H11). H10 and H11 are thus supported.
Path Relation-oriented SNS type (N = 148) Interest-oriented SNS type (N= 163) t-value

Path coefficient Standard error Path coefficient Standard error

Shared value → SNS citizenship behavior 0.55 0.09 0.31 0.07 2.17
Social trust → SNS citizenship behavior 0.26 0.08 0.52 0.06 2.64

Table 4. Comparison Testing Results between Relation-Oriented SNS and Interest-Oriented SNS

6 DISCUSSION AND IMPLICATIONS

6.1 Discussion of Findings

There are several important findings obtained from our study. First key finding is the significant role and effect of social capital in explaining SNS citizenship behavior. Shared value and social trust which represent relationship quality among SNS members have positive effect on SNS citizenship behavior. This result extends the previous findings about citizenship behavior in online communities (Kim et al. 2009; Yu & Chu 2007) in that we suggested the antecedents of SNS citizenship behavior from the social capital theory. The second key finding is social interaction on SNS has positive effect on social trust and shared value among SNS members. Also, shared value among SNS members has positive effect on social trust. This finding is in line with previous research explaining relations between three dimensions of social capital (Lin & Lu 2011; Sun et al. 2012). Social interaction, as it means social networking, is subject to build close relationship among SNS members. When members share common value and norms within the SNS, they can build a relationship on trust.

The other key findings are the characteristics of SNS have positive effect on social interaction. In particular, this study found antecedents of social capital from customer value theory (Sheth et al. 1991; Rintamaki 2006). These results extend the prior study which did not propose antecedents of social capital in SNS context. According to the type of SNS (interest-oriented SNS, relation-oriented SNS, and mixed), the results of hypothesis testing are different a little. Responsiveness has a positive effect on social interaction. Communication support has a positive effect on social interaction. SNS provide various kinds of user interface and communication tools, which motivate users to interact with other users within the SNS. Playfulness has a positive effect on social interaction in relation-oriented SNS. However, in interest-oriented SNS and mixed SNS, this study could not find a significant effect of playfulness on social interaction. This is because relation-oriented SNS, like Facebook, can enable users to do communication or play games based on networking platform. This study also could not find a significant effect of exploration on social interaction. This finding may explain that users do not think SNS to access for ideas or searching information.

We conducted an additional path comparison test between the two types of SNS (relation-oriented SNS and interest-oriented SNS). From this result, the type of SNS has a significant moderating effect on SNS citizenship behavior. The effect of shared value on SNS citizenship behavior is stronger the relation-oriented SNS than the interest-oriented SNS. It is different because of networking based on friendship in relation-oriented SNS. Facebook enables users to make and keep in touch with friends. They are already respect community values and agree with what SNS members consider to be important. The effect of social trust on SNS citizenship behavior is stronger the interest-oriented SNS than the relation-oriented SNS. This is because social networks of Facebook have already established trust since users accept friends. As Internet forums (Daum Agora, Nate Pann, and DCInside) are based on anonymity, users more tend to set a high value on social trust.

Despite the significant findings of this study, their interpretation is subject to certain limitations. First, the data for this study was collected from three types of SNS which are popular in South Korea. It would be useful to replicate this study across other SNS in various nations to establish the robustness of the results. Second, this study adopted quantitative data analysis through survey. Future research could adopt both qualitative and quantitative methods to take a wide spectrum of views from SNS users. Third, additional antecedents may determine social capital. This study adopted antecedents of social capital from only four...
dimension of customer value theory (Sheth et al. 1991). Future research could explore various values that may influence social capital in SNS context.

6.2 Theoretical Implications

This study offers several implications for research. First, it is the first theoretical study on SNS citizenship behavior which is related to abusive comments or positive comments. Previous IS research examined organizational citizenship behavior to share knowledge in online communities. Yu and Chu (2007) and Kim et al. (2009) examined the effect of organizational citizenship behavior in online communities for knowledge contribution. However, users visiting online communities have various reasons to do activities within social networking. Thus, there is limitation in explaining organizational citizenship behavior in terms of knowledge management. This study focuses on current state of user’s behavior in SNS context. We have identified antecedents of SNS citizenship behavior and examined effects of them.

The main contribution of this study is the extension of social capital theory by examining SNS citizenship behavior. Social capital theory can explain phenomenon of social networking and consider both quantity and quality of relationship. Thus, social capital theory fits well in explaining SNS citizenship behavior because it premises altruistic factors such as social interaction and trust among members. There has been few quantitative research based on social capital theory in SNS context because of ambiguous dimensions of social capital. Many of previous quantitative research applied bonding and bridging of social capital introduced by Putnam (1995), which needs to be more segmentalized dimensions that can explain more concrete results. In this study, we developed structural, cognitive, and relational dimension of social capital in SNS context (Nahapiet & Ghoshal 1998; Lin & Lu 2011; Sun et al. 2012).

This study has another theoretical contribution in examining antecedents of social capital. Previous researches based on social capital theory have lack of examining factors of social capital. In this research, we identified antecedents of social capital and developed measurement instruments in SNS context from the customer value theory perspective (Sheth et al. 1991; Rintamaki 2006). While no research has considered antecedents of SNS, we examined the relation between the characteristics of SNS and social interaction. The four characteristics of SNS is as follows; Responsiveness (Functional value), Communication support (Social value), Playfulness (Emotional value), and Exploration (Epistemic value). In summary, this study proposes and validates a new model for SNS citizenship behavior based on social capital theory and customer value theory in SNS context.

This study has another contribution in examining the different effects of social capital on the SNS citizenship behavior depending on the type of SNS. We classified intention to use SNS into three types; interest-oriented SNS, relation-oriented SNS, and mixed type of SNS. By applying social capital theory to each type of SNS, our research model has been integrated and generalized. As extension of previous research (Lin & Lu 2011), this study has demonstrated how social capital theory can be applied in IS research to explain citizenship behavior in SNS context.

6.3 Practical Implications

The results of this study offer suggestions to SNS providers about how to manage communication service in terms of social capital among members and consequently how to maintain and increase users. First, SNS providers should constantly fit into technical change to interact among members actively. There is a drift towards mobile-based SNS which is no barriers of time and place. The results of this study showed that users valued on rapid responsiveness through SNS that is a significant effect on social interaction. Thus, SNS providers provide both web-based and mobile based service.

SNS providers should be aware of services which support communication. There are many kinds of SNS sites which have each own communication tool which are different from each site. For example, Facebook has comment service such as ‘Like’, Twitter has comment function of ‘RT’. According to the way of communication support, the pattern of social network and social interaction is different. Thus, SNS providers need to develop and choose appropriate communication support tools.
According to type of SNS, this study also suggests that SNS providers should make efforts to increase member’s involvement and establish norms related to SNS citizenship behavior. Relation-oriented SNS should place high value on playful service which enables users to enjoy with friends on SNS. For example, Facebook, which have most worldwide users, provides platform service including group activities, games, and fan pages. Interest-oriented service and mixed service also should manage contents in order to recommend within social network. Compared to relation-oriented SNS, these types of SNS can hide one’s identity online. Thus it is important to make policy and manage shared value or social trust on SNS in order to sustain users and service.

The post-hoc analysis further shows the critical impact of SNS citizenship behavior. Relation-oriented SNS sites need to establish culture of community which can form bond of sympathy within SNS because they are already based on trustworthy friends. Interest-oriented SNS sites require establishing communication culture based on social trust between members because their relation is based on anonymity. To secure users continuously, SNS providers consider two main social capital; positive atmosphere of sites and relation based on social trust. By the extent of accumulation of social capital, there are different degrees of problems such as abusive comments, cyber-bullying and false rumors, on SNS. Thus, SNS providers should manage service policy appropriately for sustainability.

References

Keith, N. Hampton, L. S. G., Lee Rainie (2012). Why most Facebook users get more than they give: The effect of Facebook 'power users' on everybody else, Pew Research Center's Internet & American Life Project.


