WEAK TIES ARE WEAKER THAN STRONG TIES IN GENERATING SOCIAL CAPITAL ON SOCIAL NETWORKING SITES

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ABSTRACT

This study explores the relationship between Social Networking Site, like Facebook, KakaoStory and Social capital in respect to Strong ties and weak ties. Several earlier papers suggested that weak ties are important than strong ties when it comes to information sharing whereas few other papers also given important to strong ties. We also attempt to find the relationship between strong ties, weak ties in respect to generating social capital in Social Networking Sites (SNSs). This paper found that strong ties play more important role in creating social capital when it comes to emotional support, monitory support as well as personal work.

KEYWORDS

Social capital, social networking sites, weak ties, strong ties, Facebook.

1. INTRODUCTION

Facebook, Twitter, Friendster, etc. are some of the popular social networking sites (SNSs), which allow users to express themselves, create their social networks and generate connections with

present year, a huge number of people going online and connecting one another online for many reason. In this competitive world, we all have information needs and there are many ways to fulfil these needs. Few people use search engine or the internet to communicate particular friends, using Instant messenger or email or most commonly using a social network site i.e. twitter, Facebook, LinkedIn, Myspace (Morris, Teevan, & Panovich ,2010). Several researchers found that college students of Facebook users make a reasonable debate that there is a close association between use of the service and students "social capital" (Ellison, N.B., Steinfield, 2007). SNSs provide a relationship that facilitates users to create and keep a network of diverse connection -which is vital factor of

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bridging social capital (Boyd, d.m. et al. 2007). According to Adler and Kwon (2002), social capital has been related to several positive social outcomes, for instant reducing crime rates better public health and efficient financial markets. Several other measures of social capital used negative purpose but overall social capital has a positive effect of interaction within users in a social network (Helliwell & Putnam, 2004). Granovetter (1973, 1974) pointed out in his research work that weak ties are more effective than strong ties while searching jobs. Resnick (2001) also mentioned the importance of weak ties and internet based social networking site which create the foundation of bridging of social capital. Though several research including Granovetter's, and Lin's formulated that strong ties are less useful in facilitation status completion because commonly they do not bridge social boundaries or heretical level but a number of earlier research given mixed findings on strong ties and weak ties efficacy in labour market. (Bian, Y. 1997). One of the research which opposed Granovetter's finding was done by Watanabe (1987) found that is opposite scenario is true in Tokyo, Japan for Japanese technical and professional workers. Wagener (1991) also showed that there was a positive effect of the interaction between an employee's primary job status and ties strength on social resource. A research from MIT (Panovich, R., Miller, C.R., Karger, R.D. 2012) also found that contribution of strong ties partially more to the overall knowledge sharing and gain by the participant.

In this paper we predominantly interested in Granovetter's "the strength of weak ties" and "bringing strong ties back in: Indirect ties, network bridges, and job searches in China" published by Bian.Y (1997). These two papers showed two different opinions on strong ties and weak ties. We took the side of Bian Y. and explored how a strong tie and weak ties work in formulation social capital in social networking sites. To pursue this, we conducted a survey questionnaire to see the importance of strong and weak ties in generating social capital on SNS. In this paper, we first review literature, then research methodology, followed by our research results and discussion.

2. LITERATURE REVIEW

2.1 Social Capital, Strong ties and Weak ties and Social Networking Sites

The term social capital generally refers to the resources that derive from the relationships among people in varying social contexts (Coleman, J.S. 1988). Even it is hypothesized at all level, more specifically at group, individual or community and organizational level of analysis (Adler, P. and Kwon, S. 2002, Burt, R. 2000, Lin, N. 2001, Tsai, W. and Ghoshal, S. 1998). Several theories argued if we can consider social capital as a private good, where individuals spend time and money to create relationships so they may get the benefits others make available (Dekker, P., Prakash, S. and Selle, P.,2004).

The concept of social capital often questioned by various authors and given different definitions (Bourdieu, 1985; Coleman, 1988; Putnam, 1993). Social capital comes from a founder's social network (Tsai & Ghoshal 1998; Bornstein 2004). Social capital was explained differently in different social sciences. For instant screwdriver (Physical capital) or a university education (Cultural capital or human capital) can increase productivity. Social capital is created by a network in which people as agent, can broker connections between otherwise disconnected segments (Burt, 1992). However, the main concept of social capital is very straightforward: it is the resources available to people through their social interaction (Lin, 2001; Putnam, 2004).

A person with bigger and divers network of contacts are considered to have more social capital than individual with small, less diverse. In our paper we took the same perception of "social capital" given by Bridger & Luloff(1999) that it's the outcome of interaction instead of a process. For example, an individual come across with same community in SNS and develop relationship with the group which contribute to the growth of social capital because they initiate new source of information, expectation and trust. Lin (1999) describes social capital as an "investment in social relations by individuals through which they gain access to embedded resources to enhance expected returns of instrumental or expressive actions" (p. 39). In her definition, the practice of exchanging things with others for mutual benefits has been explained in other words she talked about reciprocity and its mechanism. She explained how SNSs help users to interact, maintain relationships with a large group, which create social capital.

These large networks are more likely to include "weak ties," such as acquaintances and friends of friends, who are more likely to provide new information and diverse perspectives. These benefits are linked with what Putnam (Putnam, R.D., 2000) says, "Bridging social capital." Earlier research paper also suggested a strong connection between use of SNS and the bridge of social capital among college students (Steinfield, C., Ellison, N.B. and Lampe, C. 2008). Putnam, R.D.(2000) mentioned about another dimension of social capital which is known as bonding social capital, denotes to the types of support that creates in close-knit relations such as close relative and friends.

These strong bonding or relationships seem to provide emotional assistance and physical benefits, for example financial loans. This perception may be associated with the firm for their emotional and social tangible benefits. Earlier research work also showed similar relationship between social capital and SNS use though it was not that strong connection between bridging social networking sites use and social capital (Ellison, N.B., Steinfield, C. and Lampe, C. 2007). Lampe, (2007) asserts that Facebook had a strong association with maintaining existing offline relationship and bridge social capital. However, it was not clear what specific feature bring this effect but earlier research well-articulated the link between Facebook use and individual level production of social capital (Valenzuela, S. Park, N. Kee, K.F. 2009). Looking on organizational perspective, social relationships and knowledge exchange can be verified by social capital perception (Sherif, K., Hoffman, J. and Thomas, B. 2006). Social capital within firm helped individual to find useful information and make contribution to the network. Social concept has given extreme importance in the organizational literature (Adler, P. and Kwon, S. 2002, Nahapiet, J. and Ghoshal, S. 1998, Tsai, W. and Ghoshal, S. 1998) and is basically embedded in the social network structure of an organization (Burt, R., 1992, 2000).

Based on Grannovetter 1973, Marsden and Campbell 1984, depends on the time spent while interacting or emotional attachment between two individuals, a tie could be strong or weak. Lampe et al. (2008) found the users understand about Facebook is changed over time. They establish that increasing number of participants is using Facebook to communicate and collect useful information. Pointing toward potential social information seeking behaviours, though its unknown if this "useful information" consisted primarily of social awareness information.

The basic idea behind strength of tie is among the friends within networks. We have one of many close friends (strong ties) and one to many friends with less closeness (Weak ties). Grannovetter (1983) in his research pointed out that friends with acquaintances bring more source of information as they belong to separate social circle, though we do not ignore the fact that weak ties bring

diverse information but when it comes to monitory support weak ties may not work in the way strong ties work. Grannovetter (1983) focused on the role of tie strength in information exchange between people and as such, models of ties strength online can help us to understand the exchange of only information sharing but not monetary support and emotional support, which brings financial support in other way create Social capital. Earlier research done by Inglehart (1990) stated that a person can enjoy more emotional support in times of personal crisis if he or she belongs to a wide network of trusted members.

Bian (1997) in her paper argued that strong ties can create network bridges linking otherwise unconnected individuals. She analysed tie strength and job search in China. Her finding suggested that when influence became important than information flows for job, strong ties play vital role in compare to weak ties. We adopt their argument in our work and aim to look at what kinds of friends formulate more social capital in social networking sites. We summarize the review of literature with a research question and four hypotheses that are hypothesized based on prior research.

2.2 Research Question:

How do strong ties generate more social capital than weak ties on social networking sites?

Hypothesis 1:
Friends with strong ties will create more social capital than weak ties when it comes to financial support in SNS.

Hypothesis 2:
There is a significant positive relationship between strong ties and emotional and person work support in SNS.

Hypothesis 3:
Strong ties would be more trustworthy in major decision making in compare to weak ties which will construct more social capital.

Hypothesis 4:
People with stronger ties are more useful in information sharing than weaker ties which will create more social capital in Social Networking Sites.

3. METHODS

To determine the effects of strong ties and weak ties in formulation social capital on social networking sites, a survey instrument has been developed by us that included items addressing SNS usages, strong ties, Weak ties, social capital and demographics. Questionnaire is adopted from Williams (2006) and modified slightly based on research requirement. For demographics we asked subjects their gender, nationality, age, what are the top four social networking sites they use and the numbers of friends they have in their friend list and finally how long they stay in Facebook/SNS in average per day. All questions on the survey were optional. The survey was performed with both web-based tool and paper pencil based tool. A popular "Google document form" web-based survey tool was used to collect data from those students who were not available on campus and other communities through Facebook, and personal email. Whereas paper based questionnaire was given to Korean students to collect data. It is important to mention that the questionnaire was written in

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English but translated into Korean language by a professor of the University of Suwon, South Korea. English questionnaire was used to collect data those who are comfortable to use English language.

Data was mainly collected from undergraduate, postgraduate students in Korea. Due to lack of time survey was only hosted for a couple of days and limited numbers of data were collected. Regardless of the shortened time for receiving responses, we received 165 respondents for our research.

3.1 Sample Description

We had 165 participants who completed the survey however 142 samples were used after screening. Whether a bias existed due to non-responders was not available in our demographic information while taking survey questions. As the samples were collected from university campus it appears to be younger, male students were slightly over represented. Figure 1(a) shows the age range of the user responding to the survey. 39.5% of the participants were in the age group of 26 to 30 years followed by 32.2% and 18.3% in the age group of 21to 25 years, 31 to 35 years correspondingly, whereas age groups of 20 or less and 41 or above having 4.4% and 1.9% correspondingly. Figure 1(b) shows the male participants were 59% and 41% were female participants. Figure 1(c) shows an interesting fact, the use of Facebook and KakoStory by gender quite different. Male user (64.3%) preferred to use Facebook over KakaoStory whereas female user (68.1%) preferred KakaoStory over Facebook.

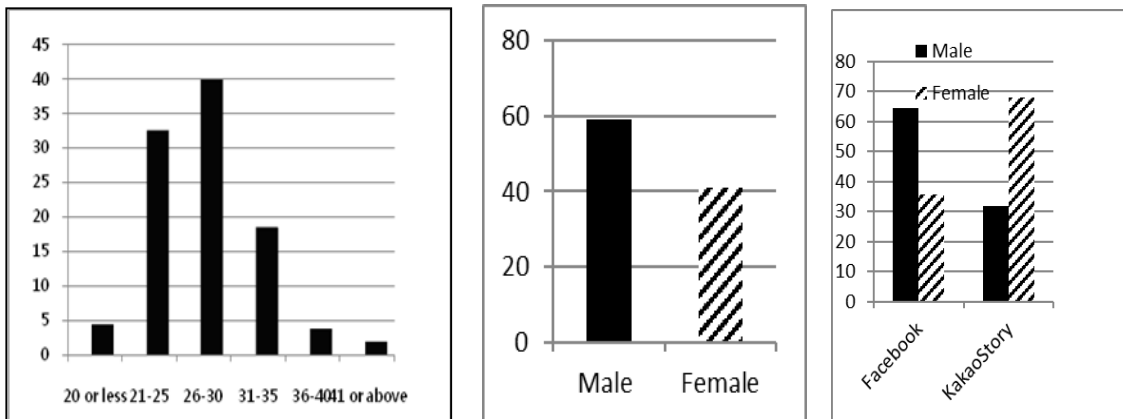

Figure 1(a). Age Range   Figure 1(b). Gender   Figure 1(c). SNS use by gender

Figure 2 shows the distribution pattern of Social Networking Sites in South Korea. It is totally clear that majority of the participants were using Facebook (59.6%) followed by KakaoStory (17.3%) then Instagram (10.4%), Band (8.1%) and Twitter (4.6%). Earlier several articles also suggested Facebook stayed most popular SNS platform for the two consecutive years in South Korea. Female tended to use more KakaoStory whereas male preferred to stay with Facebook (See figure 2).

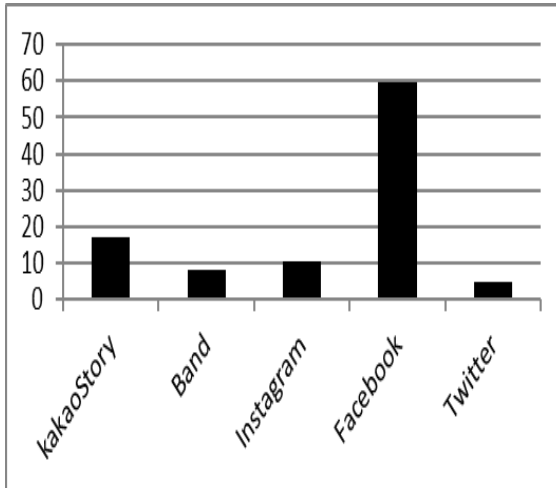

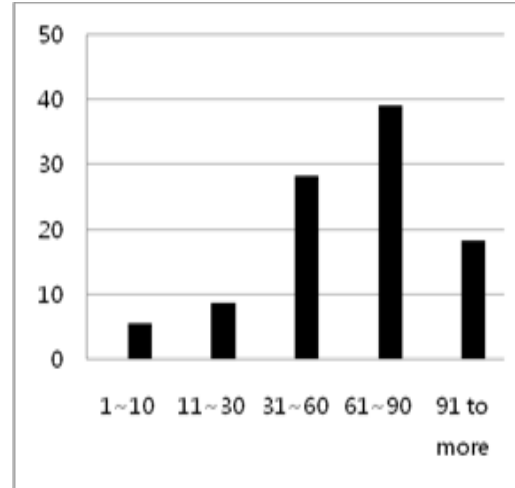Figure 2. SNS in South Korea   Figure 3. Time spent on SNS

Figure 3 shows the amount of time participant spent on SNS. Majority (39.1%) of the participants were spending 61 to 90 minutes every day on average in their past week, whereas around 28.3% of the other members were spending either 31 to 60 minutes, participant spending 91 minutes or more was 18.3% whereas 5.6% users were spending only 1 to 10 minutes and 8.7% were spending 11 to 30 minutes.

4. RESULTS

In our research work the process of finding the importance of different ties were adopted from Williams (2006) and Steinfield, Ellison, et al. (2009). In their research work, they used bonding social capital dimension from social network and also from Facebook (Ellison 2007). In our research, variables were listed in Table-1. The variables that were not used were deleted due to the increasing difficulty in gathering information, for example, educational difference where not used in our research therefore we have eliminated that from our research. Since we used a simplified version of Williams and Steinfield, Ellision technique, we attempted to be very specific by asking participants questions in the survey portion about how much they value their close friends and how useful is their weak friendship. Majority of the data were gathered from Facebook users. This allowed us to eliminate the bias of non-users of Facebook or SNS. In our questionnaire simple and clear cut options were given to the participants to select their best choice out of three choices (Close friend=strong ties, Acquaintances=weak ties, both of them). This is due to verify and understand if the answer quality basically related to the ties or not? Participants were asked straight forward question to see which ties help them to create more social capital in their social networking sites. Interestingly, gender, education do not moderate the relationship between Social networking sites and social capital. Table 1(question number 1) shows that when it comes to comparatively higher amount ($500) of monitory support close friends in other words strong ties create more social capital 88.6% of the participant agree with the fact that Strong ties will play more important role in formulation social capital in SNS. Previous work often simply ignores the importance of strong ties in different ways.

Table 1: Descriptive data (Total number of participant N=142)

Variables	In percentage		
	Strong ties (Strong ties)	*Weak ties (Acquaintances)*	*Both Strong ties & weak ties*
1.If I need an emergency load of $500, there is someone at Facebook/SNS I could ask to loan it to me	88.6	9.0	2.4
2.If I need to borrow money for lunch, I know someone at Facebook/SNS loan me a few dollars	58.6	19.7	21.7
3.I know people at Facebook/SNS who would put their reputation on the line for me	69.55	20.40	10.05
4. When I feel lonely, there are several people at Facebook/SNS I can talk to	41.14	22.56	36.3
5. I would be able to find out about events in another town from the people I interact in Facebook	27.5	61.5	10.5
6. When I have a problem at work, there are several people at Facebook I know I can call on for help	43.7	19.24	37.1
7. There is someone at Facebook I can turn to for advice about making important career decisions	60.0	28.4	11.6
8. I would be able to find information about a job or internship from the people who are in my Facebook friend list	9.1	11.2	79.7
9. I believe members at Facebook/SNS are always trust worthy	69.7	9.9	20.4
10. I know there is someone who can give me emotional support when I feel down	51.3	11.3	37.4

Whereas when the amount is low (as explained in the question no. 2) still participants believe that strong ties are the best source of social capital. Though the percentage is comparatively less (approximately 30% less) than when it comes to $500 dollar or more. Approximately 59 % of the sample agreed that strong ties and 22 % of the sample think both strong and weak ties will play important role. Based on collected data from those two monitory questions our first hypothesis supported.

When it comes to emotional and personal work support we can see from the table 1(question numbered 3, 4 and 6) that approximately 70%, 41% and 44% of the respondents were agree respectively that they get more support from the strong ties. There was also a clear indication that strong ties play greater role in emotion support (question no. 10) in generating social capital in social networking site in compare to weak ties. Hence result supported hypothesis 2.To explore hypothesis 3, which predict the relationship between friends with different ties help in making major career path (question number 7). Majority of the participants reported that they more trust on strong ties (60.6%) when it comes to major decision making in their personal life. Whereas 28.4% respondents believe that acquaintances can be good option for future decision making and 11.4 % agreed that both strong ties and weak ties would be play similar role in selecting career path. Question numbered 10 also checked the trustworthiness of strong ties and weak ties, result shows that 69.7% think strong ties are more trust worthy than weak ties (9.9%), whereas 20.4% think both ties would be equally trust worthy. Hence our hypothesis 3 was well supported by the collected data.

Finally, and most surprisingly hypothesis 4, shows a different result from all of the above hypotheses.   Bulks of our results were statistically satisfied with our hypotheses however hypothesis 4 did not. It gave a very surprising and interesting result. We asked (question numbered 5) participants if they would be able to find out about events in another town from the people they interact in Facebook/SNS. 10.5% of the participant responds that all kind of ties can help them out to find event information in another city. 27.5% mentioned that the strong ties can provide them event information where as 61.5% think weaker ties would help them to accumulate event information. Lastly we asked participants who can be the most useful friends in their SNS list when it comes to find information about a job or internship. Respondent reported both strong ties and weak ties (79.7%). Only 9.1% agreed with the fact that strong ties can provide them information about internship and job opening whereas 11.2 % think that they can grab such information from acquaintances in their friends list. Though our hypothesis 4 says that strong ties will generate more social capital when it comes to information sharing but result denied this hypothesis and provide the importance of each ties equally when it comes to information sharing, therefore statistical data failed to satisfied hypothesis 4.

5. DISCUSSION AND IMPLEMENTATION

In this section, we explain the underline story of our result. Our research question asks if strong ties are stronger than weak ties in creating social capital in Social Networking Sites specially Facebook. Our analysis and findings propose numerous important implications for research on job searches, event information and monitory support. In our introduction and literature review we detailed some of the places where ties strength and the flow of information have been studied. Earlier it has been assumed that job-seekers learn employment information mostly through weakly tied contract than through strongly tied but that trend is changing due to influence of closeness toward interviewers can manipulate or influence selection process. Participants in our study rated both ties play similar importance in case of job search and event information. Regarding monitory, emotional support and carrier decision making participants answered strong ties are way more useful than weak ties. Early studies (Granovetter 1974; Lin et al. 1981) showed that weak ties frequently help finding job than strong ties, but more recent analysis (Marsden and Hurlbert 1991) has mention that strong ties are also useful. Bian, Y.(1997) in his study she showed that jobs can be channelled through strong ties more easily than through weak ties in guanxi networks in China. Finally, the social capital, strong ties, weak ties and social networking sties relation have been established. The fact that use of SNS sites appear to be associated with greater social capital benefits for users.

5.1 Limitation

Unlike other research paper our paper also has several limitations. The sample size of our paper wasn't that high, we unable to collect high number of sample for the research due to lack of time. 142 valid subjects were collected from a university campus and as well as SNS for this research which is comparatively low to draw a meaningful conclusion and generalize. It would also be good to get participant from different nation which might give a better understanding about the strong ties and weak ties and how they generate social capital in SNS. Another limitation is that few of the scales are measures used in this study were single-item question. Future research could provide more insight into the issue of whether strong ties could be given more important in formulation social capital in SNS or not.

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6. CONCLUSION

Further research works are requiring to understand fully the relationship between strong ties, weak ties and if there are any other ties (intermediate- neither strong nor weak ties), social capital and social networking sites. In this paper we presented a study relating ties strengths and how strong ties are stronger in generation social capital in social networking sites. We found there are significant importance of strong ties in formulation social capital in case of monitory, emotional, career making issues. It is more likely that strong ties provide more social capital in SNS than weak ties, but in case of information sharing, particularly job search or event search outside of cite, all ties showed similar important. Previous studied of Grannovetter though showed that in case of job search weak ties plays more important role. Other study though provided opposite result of Grannovetter in job search in China. Another recent research on "tie strength in question and answer on social networking site" by Panovich, K., et al (2012) also found the similar kind of result as we found in our research. They mentioned that "instead of weaker tie providing better answers, there was minimal correlation at best, and in fact, for some measures of answer quality, strong ties actually provided better answers". New functionalities have currently added to Social networking sites that recommend new connection and increase the bonding between friendships. We hope our effort to better understand some of the social mechanisms in play can also translate to other areas. It is important to understand that strong ties were weaker when it formed and we give it important because somehow it became more important to us and we should give it important instead of taken it granted.

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