A Study on Status of Social Capital in Facebook Social Network in Iran

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Abstract

Global expansion of the cyberspace has given rise to a body of academic literature in which the world is divided into two realms, i.e. virtual and real. In this regard, one may point to the increasing use of online facilities available for various strands of people. Various social groups use internet for many different reasons and motivations. However, the online phenomenon, especially using virtual networks such as Facebook, enjoys a special position among students. This paper aims to examine the social capital of university students in Facebook. In doing so, we use Weak Ties Theory of Mark Granovetter which maintains an inverse relationship between two types of social capital, namely bridging and bonding social capitals. Addressing these two types of social capital, we first examine their relationship with each other, then try to uncover how each of them is related to the rate of Facebook use, rate of Facebook activity, and rate of attention one receives in Facebook. We applied survey method and designed a questionnaire. 400 randomly selected students of Social Sciences Department of University of Tehran participated in our survey. Our results show that, as expected, there is an inverse relationship between bridging and bonding social capital. In addition, Bridging social capital is positively related to the rate of Facebook use, the rate of Facebook activity and the rate of attention one receives in Facebook. However, the relationship between bonding social capital with the rate of Facebook use, the rate of Facebook activity and the rate of attention one receives in Facebook were contrary to our initial assumptions.

**Keywords:** Social Capital, Bonding Social Capital, Bridging Social Capital, Rate of Facebook Use, Rate of Facebook Activity, Rate of Received Attention in Facebook

Introduction

Social Capital is a relatively new concept which, in recent years, has enjoyed a considerable attention by scholars in various academic fields. Social Capital Theory is an emerging interdisciplinary branch, applied by researchers in a many fields including economics, social sciences, political sciences and social policy. Social Capital is generally defined as formal and informal networks which enable people to use resources and reach goals (Mostaghimi and Voseizade, 2009: 280-1). Despite its complicated form, Social Capital Theory is a very telling idea, the gist of which can be summarized in three simple words: “relationships are important.” Relating with each other, people aim for things which they could hardly do in person (Field, 2008). Recently introduced in social sciences’ literature, this concept briefly includes capital and resources provided by institutions, relations and norms that form interactions in the society quantitatively and qualitatively (Chalbi and Mobaraki, 2005: 3).

Facebook is one of the most popular social networks, currently ranked second among the most visited websites. Social networking websites in general, and Facebook in particular, provide a suitable environment for internet users to interact and communicate with each other. In this regard, the relationship between social capital and virtual social networks is a relatively overlooked issue. Facebook maintains a proper network of relationships among people and eliminates temporal and spatial barriers. This paper claims that in our age, in which face to face and direct meetings are hard to achieve, Facebook can strengthen social capital of students. Our concern is that whether students continue their intragroup communications with their close friends (i.e. try to bond), or want to expand their relations (i.e. try to bridge). In addition, we want to examine how these two types of students differ in their respective Facebook activities. University students were selected for this study because of the ever increasing popularity of Facebook among students to the point that very few of them do not use Facebook in one way or another.
Literature Review: Social Capital Theory

After Judson Hanifan, the social capital concept was reintroduced by Jane Jacobs in 1960s in her researches on urban planning, and by Glenn Loury in 1970s in his works on neoclassic theories of racial income differences (Portes, 1998: 2). It should be noted that social capital concept briefly includes capital and resources provided by institutions, relations and norms that form interactions in the society quantitatively and qualitatively (Chalbi and Mobaraki, 2005: 3). Bourdieu was the first one to provide an ordered analysis of social capital, defining it as: “the result of accumulated potential or actual resources related to the ownership of a lasting network of less or more institutionalized relationships with people, which is created due to membership in a group.” (Nateqpour and Firouzabadi, 2006: 162). Coleman believes that social organization creates the social capital, claiming that social capital should be defined in terms of its function. In his view, social capital is not a single object, rather it refers to various objects which have two features in common: they represent an aspect of a social construct, and they facilitate certain actions of the individual within the structure (Coleman, 1994). We believe that Facebook is an arena that facilitates communications, without which we fail in making most of our relationships in our ever-expanding world. In his analysis of the elements of social capital, Putnam considers civic engagement to be a necessary form. He claims that the more concentrated the networks in the society, the more likely is the cooperation of citizens towards achieving mutual interests, rising the potential costs of breaching any deal (Putnam, 1993).

Theoretical Model

Theoretical development of social capital mostly owes to researches of Robert Putnam. In his view, the core idea of social capital concept is that social networks are valuable, and social contacts and participative actions improve the efficiency of both individuals and groups. In his typology, he makes a distinction between two kinds of social capital: bonding capital and bridging capital. Bonding or old social capital is the kind that connects people who are similar to each other in some major ways, for example ethnicity, age, gender, social class. Bridging or new social capital, on the other hand, refers to those social networks which connect people from various social backgrounds, possibly leading to open and unprejudiced identities. Weak Ties Theory of Mark Granovetter forms the basis of our research. Granovetter believes that strong intragroup ties cause the members to confine their relationships to the group, thus making less contacts and interactions with the people outside their group. On the other hand, strong intergroup ties cause people not to confine their relationships to the group, rather making better interactions with outsiders. According to this theory, the stronger the ties between group members, the less the social capital; and the weaker the ties between group members, the more the social capital. Granovetter maintains that the social capital may be examined in terms of strength, frequency and inclusiveness of various relationships such as those among friends, coworkers, etc. The strength of ties within a social group weakens its members’ relationships with outsiders. In fact, Granovetter believes that concrete relationships among members of a group leads to weakened relations with outsiders, thus decreasing the social capital; on the other hand, weak intragroup ties lead to better relations with outsiders, thus increasing the social capital (Sibert, 2001).

Kraut’s works demonstrate that time plays an important role in the formation of social capital. Here, time means the daily amount of time one spends on the web as well as how long one has been acquainted with and using the Internet. Characteristic features of the individual do matter as well. Contrary to introverts, extroverts are positively affected by using internet: as the saying goes, money breeds money. Extroverts are those who tend to like people and enjoy social interactions. (Kiesler et al., 2002). In the sociological tradition, social ties typically refer to strong, initial ties readily available within family, friends and neighbors. Such ties are of interest to sociologists because of the support and solidarity implied in them. Granovetter, however, turned to weak ties and their function in his seminal paper. The Strength of Weak Ties. According to Granovetter, power is a linear function of time spent for interaction, emotional intensity, intimacy (mutual trust) and mutual services available in a tie (Mardsen et al., 1982: 101). It should be noted that social ties may play an important role in acquiring social interests such as information. In other words, the weakness of weak ties does not imply their insignificance. Such ties are sources of information, doing jobs, spending leisure time, communicating and pleasure (Castles, 2001: 128). Weak ties are rooted in division of labor, because “specialization and independence result in a wide variety of specialized role relations in which one knows only a small segment of the other’s personality.” Granovetter mentions that according to Durkheim, “variety of different viewpoints and activities is the essential prerequisite for the social construction of individualism;” a position which is in stark contrast to that held by Wirth and Toennies who believed role segmentation results in alienation (Granovetter, 1982).

The theoretical model of our research is summarized in Fig. 1.
Research Method
We applied survey method and designed a questionnaire for our research. The sampling method for infinite populations was used. Cochran’s formula is used to determine sample size, assuming 𝑝 = 𝑞 = 0.5 and an error of 5 percent.

\[ n = \frac{z^2 \, p \, q}{d^2} \]

In order to ensure the sampling method would go as expected, a sample of 400 Facebook users of the department were randomly selected to complete the questionnaire. Two of the questionnaires were incomplete and put aside in further analysis.

Validity of statements and variables were examined using Cronbach’s Alpha formula, which showed high internal consistency of statements and research variables.

In order to determine reliability of the research instrument, 30 questionnaires were used as a pretest, distributed between a sample of the population including 15 male and 15 female students. Cronbach’s alpha formula turned to be more than 0.7 which is considered reliable.

Findings
At first, we used multivariable linear regression method to test each of the research hypothesis. Then, the set of regressions were used to test the theoretical model of the research. It should be noted that 5 major indicators of the research are standard variables, ranging from 0 to 100.

As noted earlier, parameters were estimated using linear regression as follows:

\[ Y = a + b1(x1) + b2(x2) + \ldots + bn(xn) \]

According to our findings, there is a significant inverse relationship between bridging social capital and bonding social capital (Table 1).

Table 1: Regression of Bonding Social Capital on Bridging Social Capital

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>Beta</th>
<th>T</th>
<th>Sig</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>93.38</td>
<td></td>
<td>29.24</td>
<td>0.00</td>
<td>0.601</td>
<td>0.361</td>
<td>0.359</td>
<td>10.21667</td>
</tr>
<tr>
<td>Bridging Social Capital</td>
<td>-0.43</td>
<td>-0.492</td>
<td>-8.73</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In addition, for each unit of increase in bridging social capital, bonding social capital decreases by 0.43 unit.

There is a significant inverse relationship between bridging social capital and bonding social capital. In other words, we expect the bridging social capital to decrease with bonding social capital (Table 2).

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>Beta</th>
<th>T</th>
<th>Sig</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>88.11</td>
<td>30.88</td>
<td>0.00</td>
<td>0.601</td>
<td>0.361</td>
<td>0.359</td>
<td>9.48032</td>
<td></td>
</tr>
<tr>
<td>Bonding Social Capital</td>
<td>-0.37</td>
<td>-0.492</td>
<td>-8.73</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For each unit of increase in bonding social capital, bridging social capital decreases by 0.37 unit. Both bonding and bridging social capitals are significantly related to rate of Facebook use. In other words, we expect the rate of Facebook use to decrease with bonding social capital and increase with bridging social capital (Table 3).

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>Beta</th>
<th>T</th>
<th>Sig</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-10.25</td>
<td>-2.034</td>
<td>0.043</td>
<td>0.573</td>
<td>0.328</td>
<td>0.323</td>
<td>9.06750</td>
<td></td>
</tr>
<tr>
<td>Bonding Social Capital</td>
<td>0.301</td>
<td>0.316</td>
<td>2.261</td>
<td>0.024</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bridging Social Capital</td>
<td>0.364</td>
<td>0.388</td>
<td>7.564</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For each unit of increase in bonding social capital, rate of Facebook use increases by 0.30 unit, a finding that is contrary to our initial assumption. And for each unit of increase in bridging social capital, rate of Facebook use increases by 0.36 unit.
Both bonding and bridging social capitals are significantly related to rate of Facebook activity. In other words, we expect the rate of Facebook activity to decrease with bonding social capital and increase with bridging social capital (Table 4).

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>Beta</th>
<th>T</th>
<th>Sig</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.037</td>
<td></td>
<td>0.008</td>
<td>0.994</td>
<td>0.526</td>
<td>0.277</td>
<td>0.272</td>
</tr>
<tr>
<td>Bonding Social Capital</td>
<td>-0.272</td>
<td>-0.295</td>
<td>-1.804</td>
<td>0.072</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bridging Social Capital</td>
<td>0.293</td>
<td>0.325</td>
<td>4.256</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Rate of Facebook Activity) = 0.037 - 0.0272(Bonding Social Capital) + 0.293(Bridging Social Capital)

For each unit of increase in bonding social capital, rate of Facebook use decreases by 0.27 unit. As shown in the table, Sig parameter doesn’t demonstrate a significant relationship. And for each unit of increase in bridging social capital, rate of Facebook use increases by 0.29 unit.

Both bonding and bridging social capitals are significantly related to the rate of attention one receives in Facebook. In other words, we expect the rate of received attention on Facebook to decrease with bonding social capital and increase with bridging social capital (Table 5).

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>Beta</th>
<th>T</th>
<th>Sig</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-5.50</td>
<td></td>
<td>-1.492</td>
<td>0.137</td>
<td>0.482</td>
<td>0.233</td>
<td>0.228</td>
</tr>
<tr>
<td>Bonding Social Capital</td>
<td>0.239</td>
<td>0.265</td>
<td>1.206</td>
<td>0.229</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bridging Social Capital</td>
<td>0.228</td>
<td>0.296</td>
<td>3.635</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For each unit of increase in bridging social capital, rate of received attention in Facebook increases by 0.23 unit. Given the Sig parameter in the table, the relationship between bonding social capital and received attention in Facebook is not significant.

**Examining the Theoretical Model**

Now, we examine the relationships between main indicators of our research in the theoretical model.
According to the above model, bonding social capital has no significant effect on either rate of activity or rate of received attention. In addition, bonding social capital has a significant inverse relationship with rate of use. All these three findings are against our initial assumptions. As for bridging social capital, our initial assumptions are confirmed. The bridging social capital has its strongest and weakest effects on rate of use and rate of received attention, respectively. And as expected, bonding social capital and bridging social capital are inversely related, each one decreases with the other.

**Conclusion**

The basis of Weak Ties Theory which forms our research framework is that stronger bonding social capital automatically keeps group members from expanding relationships with outsiders, thus leading to weaker bridging social capital of group members. In fact, Granovetter considers strong bonding social capital as a weakness that that prevents them from developing their social capital. According to Weak Ties Theory, we expected student users of Facebook with strong intragroup ties to enjoy less intergroup ties, and the other way around. Furthermore, we expected users with more bridging social capital to have higher rates of Facebook use, activity and received attention due to their more expanded friendships and extrovert character; while users with more bonding social capital were expected to have lower rates of Facebook use, activity and received attention. However, according to our findings, bonding social capital has no significant relationship with either rate of activity or rate of received attention. In addition, we found a significant direct relationship between bonding social capital and rate of Facebook use, which is contrary to our initial assumption of an inverse relationship between these two variables. This maintains that introvert and extrovert users probably spend a same amount of time on Facebook, yet each one is bound to his/her relationship domain, either extending it or confining it to his/her intimate friends. As for bridging social capital, all our initial assumptions were confirmed which determines that bridging social capital has a significant direct relationship with rate of use, rate of activity and rate of received attention.

With the status of a user in Facebook operationalized in terms of three major indicators, the final conclusion we can draw is that compared to bonding social capital, bridging social capital has a more significant effect on a user’s status. In other words, in examining the status of a user in Facebook, more attention should be bridging social as the more decisive element, though bonding social capital has a significant yet much weaker effect on the user status.
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References