Measuring Virtual Community Cohesion

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ABSTRACT

This paper presents findings of a preliminary study on virtual community cohesion with the aim to measure the social cohesiveness of users of the social media. Whilst social media can be a medium for social integration, it can be a tool to instigate disunity and social calamity. This study attempts to gauge the perception of ordinary Malaysian citizens who are users of the social media on the existence of cohesion in the virtual community that they participated. This can be a basis in harnessing social cohesion as a form of intellectual capital towards competitive intelligence. A survey was conducted involving 129 users of the social media using a virtual community cohesion measurement construct developed earlier. Data analysis was carried out on the respondents’ demography and perceptions with regards to the state of cohesiveness of the virtual community they were involved with. Results indicate that General Trust, Willingness to Cooperate, and Sense of Belonging were the top 3 most important constructs for virtual community cohesion perceived by respondents. Descriptive statistics were employed to understand the cohesion constructs better where different age groups particularly youths and teenager school-going children have different perceptions on virtual community cohesion. Further modeling of the construct was suggested to improve its predictive power for future study.

Keywords: New Social Media, Cohesion Measurement, Social Cohesion, Unity, Social Integration.

I INTRODUCTION

The Ministry of Education (MOE), Malaysia came up with an education blueprint, the Malaysian Education Development Plan 2013-2025, which underlines to transform the education system in a span of 13 years (MOE, 2013). Among the area that is given special emphasis is the strengthening of unity among school children irrespective of the types of schools, and development of instrument to measure unity baseline among school-going children. This affirmative action is seen as a positive sign to inculcate sense of unity among the populace at their earliest inception.

In a global context, virtual community is gaining popularity and becoming the “in thing” of the modern society. Its influence has become pervasive, in particular when its use covers activities from various domains – social, educational, political and business. In modern society, being connected via virtual community is almost a must. Many have shown interests in new social media particularly seeking solutions for problem at hand and share knowledge through virtual discussions (Chao et al., 2006). With the new social media, users can get access to contents, which are mainly unregulated, at anytime and anywhere through the use of various digital devices (Schivinski et al., 2014). Users of the new media can share aspects of their lives, and keeping in touch with family members and friends through various social interaction mechanisms provided via the Internet, thus forming relationships with those whom they meet on the Internet (McKenna et al., 2002).

Virtual communities and online communities are sometimes being used interchangeably. Rheingold (1998) regards virtual communities as social aggregations that emerge from the Net when enough people carry on those public discussions long enough, with sufficient human feeling, to form webs of personal relationships in cyberspace. Similarly, Gupta and Kim (2004) define it as a place in the web where people can find and then electronically “talk” to others of similar interests. In addition to human feelings as stated by Rheingold (1998), Chewaret et al. (2003) define online communities or virtual communities as a general gathering of interest that disregards the importance of proximity and organization-based interactions. Shafiz Affendi and Kamarul Faizal (2013) simply state a rather more general definition of online or virtual community that “is a group of people connected through the internet and other information technologies.”

The rapid growth of such new social media is indicative of its entry into mainstream culture and its integration into the daily lives of many people. Social media has transformed the bound and networked people into virtual community (Gurstein, 2008). They allow people to easily and simply create their own online page or profile and to construct and display an online network of contacts, often called ‘friends’. Users can communicate with
their friends on a one-to-one basis (much like an email), or in a more public way such as a comment posted for a specific group or all to see.

The rise of new social media has also impacted Malaysia political landscape. This is evidenced when it serves as a venue in which basic political conflicts are waged (Pepinsky, 2013) as new political tactics were introduced and new coalitions were formed. As a consequence of being technologically empowered via the new social media, the relationship between the country’s political figures and its citizens has been redefined thus resulting in the rising of citizens’ political participation during the Malaysia 13th General Election (Yeap, 2013). In fact, prior to the general election, due to exponential growth of social media users – more than 13.2 million of Facebook users and 2 million Twitter users (Forest-interactive.com, 2013), Malaysia has experienced its first “social media election” (Zahiid, 2013). The new media has been used as a tool in the general election (GE) campaign to mobilize support from both online and offline users (Gomez, 2013; Sern& Zainudin, 2013), as well as to get connected with the citizens for their political views (Metzgar & Maruggi, 2013).

The new media can be a tool for social cohesion, but it can also be a weapon for disunity and social destruction. According to Forsyth (2010), cohesion can be broken down into four main components: social relations, task relations, perceived unity, and emotions. The Collins Dictionary defines cohesion as “tendency to unite”. Simply, group or community cohesiveness can be viewed as tendency for the group or community to have a sense of unity, interacting in a harmonious and agreeable manner. Building community cohesion is about building better relationships between people from different backgrounds including those from new settled communities to achieve unity in the community. This is in line with the findings of Shafiz Affendi and Kamarul Faizal (2013) who state that relationships are key to Malaysian virtual community’s togetherness and connectedness. Their findings connote that all parties involved are required to (i) work together in a positive, cooperative and respectful way to create desirable outcomes; and (ii) avoid confrontation by directly deal with differences for harmonious virtual community. It is important to note that these findings are viewed as one of the dimensions of social capital theory. A more comprehensive framework of social cohesion was proposed by Chan et al. (2006) who define social cohesion as “a state of affairs concerning both the vertical and horizontal interactions among members of society as characterized by a set of attitudes and norms that includes trust, a sense of belonging and the willingness to participate and help, as well as their behavioral manifestations”. This framework is adopted for this study due to its comprehensiveness.

**Problem statement**

It is often mentioned that virtual community (or social network site) brings about social problems particularly in the ethical use of the media. Despite that, the capacity of such media in enabling and enhancing social connections is also apparent. Of late, individualism is seen as a phenomenon in which social cohesiveness appears to be diminishing and if not attempted to, may be disappearing. This problem is also prevailing in Malaysia. This is apparent as the government keeps encouraging its citizen to be united through the recently announced concept of 1Malaysia. With the Internet as the medium for social networking, it is believed that the virtual community could be a medium of social cohesiveness. The Internet (and SMS) permits people to communicate and express themselves in the real world in ways they might be incapable of (Katz & Aakhus, 2002), thus enhancing their level of social connection and their feelings of confidence. These characterize individuals with competitive intelligence that can anticipate and face challenges head on. In political context, some of them have used the Internet in delivering their standings. This is obvious in particular during the campaign period of the Malaysia’s 13th GE.

This is a preliminary study that attempts to gauge the perception of ordinary Malaysian citizens who are users of the social media on the existence of cohesion in the virtual community that they participated, and thus measures the social cohesiveness of users of the social media. Within the context of virtual community, the characteristics that are indicative of social cohesiveness among the members of virtual community established by Zulkhairi et al. (2014) were employed. The findings of this study is hoped to facilitate the government in addressing the issue of unity (social cohesion) in Malaysia. This may enable the country to instigate the intellectual capital among the society towards competitive intelligence.

**II METHOD**

As mentioned in the preceding section, the instrument employed to measure virtual community cohesion (VCC) was adopted from a prior study developed by the authors (Zulkhairi et al., 2014). It was based on the traditional social cohesion framework developed by Chan et al. (2006) and reviews of related literature (Jenson, 1998; Community Cohesion Unit, 2003; Jeannotte, 2000; Turok et al., 2006; MacCracken, 1998; Schmeets & Riele, 2010; Friedkin, 2004; Ottone et al., 2007; Bollen & Hoyle, 1990; Maxwell, 1996; Easterly et
The framework was then transformed to community cohesion constructs based on reviews by experts in the fields of sociology and ethnic relations. Each construct was operationalized producing item variables following kit review iteration process by the experts. The constructs and their underlying item variables were then subjected to scrutiny item by item and mapped against characteristics of virtual community. These characteristics were obtained based on operational definitions of virtual community that include works by Bruckman and Jensen (2002), Hill et al. (1996), Kannanet al. (2000), Kim et al. (2008), Lee et al. (2002), Porter (2004), Ridings and Gefen (2004), Dubeet al. (2006), Shafiz Affendi and Kamarul Faisal (2013), and many others.

A questionnaire was developed comprised of the 8 constructs precede by demography of the respondent. The constructs include 1) General Trust, 2) Willingness to Cooperate, 3) Sense of Belonging, 4) Social Participation, 5) Voluntarism and Donations, 6) Inter-group Alliances, 7) Trust in Public Figures, and 8) Political Participation. All items in the constructs were measured using closed-ended 5-point Likert-scale ranging from 1 (none), 2 (seldom), 3 (sometime), 4 (frequent), and 5 (all the time) with 0 (not applicable). With the exception of Inter-Group Alliances, for the rest of the constructs, the scale of 1 represents the strongest negative perception towards the statement, whereas the scale of 5 represents the strongest positive perception. The mean scores calculated from the total scales for each construct were used in the analysis process, particularly in understanding the respondents’ views on social cohesion that exists in their respective virtual community.

Subsequently, a survey was administered where questionnaires were given to a sample of respondents. The sample size was determined following suggestion by Hair et al. (1995) for a feasible size ranging from 100 to 200 for very large or unknown population. An indication of the population size of social media in Malaysia according to the Internet World Stats (2014) is the number of Facebook users of 13.6 million. Sekaran (2003) however states that sample sizes larger than 30 and less than 500 are appropriate. Following these recommendations and using the probabilistic sampling approach, questionnaires were distributed through online surveys to reach to the wider virtual community population and printed hardcopies given to families, friends and acquaintances to increase the response rate. Within 2 weeks, 132 responded to the survey with 66% rate of return (based on sample size of 200). Subsequent data entries were done on 129 returns, with the remaining 3 discarded due to inappropriate and unusable responses.

Reliability tests were conducted for each of the construct to check for internal consistency of responses. Table 1 shows the reliability coefficient (Cronbach’s Alpha) for multiple items used in the study.

<table>
<thead>
<tr>
<th>Construct</th>
<th>No. of Items</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Trust</td>
<td>6</td>
<td>0.76</td>
</tr>
<tr>
<td>Willingness to Cooperate</td>
<td>9</td>
<td>0.86</td>
</tr>
<tr>
<td>Sense of Belonging</td>
<td>5</td>
<td>0.84</td>
</tr>
<tr>
<td>Social Participation</td>
<td>11</td>
<td>0.95</td>
</tr>
<tr>
<td>Voluntarism &amp; Donations</td>
<td>16</td>
<td>0.93</td>
</tr>
<tr>
<td>Inter-Group Alliances</td>
<td>5</td>
<td>0.86</td>
</tr>
<tr>
<td>Trust in Public Figures</td>
<td>7</td>
<td>0.94</td>
</tr>
<tr>
<td>Political Participation</td>
<td>3</td>
<td>0.90</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td></td>
</tr>
</tbody>
</table>

As shown in Table 1, each construct shows Cronbach’s alpha readings of acceptable values of above 0.60 (Hair et al., 2006). This indicates that the measurement constructs for VCC are reliable with acceptable internal consistency.

III FINDINGS AND DISCUSSION

The demographic information of the respondents shows the age range from 16 to 62 years old with mean age of 28.67 years. Table 2 shows the age range distribution of the respondents.

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Category</th>
<th>Freq</th>
<th>Percent</th>
<th>Cum %</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 &amp; below</td>
<td>Teenager</td>
<td>37</td>
<td>28.7</td>
<td>28.7</td>
</tr>
<tr>
<td>20 – 35</td>
<td>Youth</td>
<td>56</td>
<td>43.4</td>
<td>72.1</td>
</tr>
<tr>
<td>36 – 54</td>
<td>Adult</td>
<td>28</td>
<td>21.7</td>
<td>93.8</td>
</tr>
<tr>
<td>55 &amp; above</td>
<td>Senior citizen</td>
<td>6</td>
<td>4.7</td>
<td>98.5</td>
</tr>
<tr>
<td></td>
<td>Missing value</td>
<td>2</td>
<td>1.5</td>
<td>100.0</td>
</tr>
</tbody>
</table>

In terms of gender, 60.5% of the sample respondents are females, whilst the remaining 39.5% are males. For qualifications, 9.3% of the sample is PhD holders. The rest are Masters (16.3%), Bachelor (23.3%), Diploma (14.7%), Certificate (9.3%), and Others -lower secondary education is 27.1%. Race shows the majority as Malays (78.3%). Chinese made up 7% of the sample, whilst Indians made up 9.3% and others at 5.4%.

Question on Experience with Social Media shows majority of the sample has more than 4 years using the social media with 67.4% of the respondents. In terms of type of social media used, Facebook appears to be the most popular with 95.3% of the sample indicated using Facebook. This is followed
by WhatsApp at 72.1%, Twitter at 37.2%, Instagram at 36.4%, Blog at 28.7%, Google+ at 22.5%, BBM at 18.6%, and WeChat at 18%. The most dominant type of social media used is Facebook with 69% of respondents indicated so. This is followed by WhatsApp at 16.3%, Twitter and WeChat both at 3.1%. As for virtual community category intention, Social is the most popular category with 73.6% of respondents indicated. This is followed by Education (57.4%), Hobby (52.7%), Religion (41.9%), Games (30.2%), Business (22.5%), and Politic (19.4%). This indicates that the social media is used mainly for social purposes and getting knowledge for one’s own benefits. Respondents did not prefer to talk about the more serious stuff such as business and politics in the social media.

In order to understand the respondents’ views on cohesiveness of the virtual community they participated, cross tabulation analyses were carried out with selected demographic variables against the VCC constructs. Comparing the overall means between the constructs, General Trust has the highest overall mean of 3.40. This is followed by Willingness to Cooperate at 3.23, Sense of Belonging at 3.21, Community Participation at 2.82, Inter-Group Alliances at 2.74 (5-2.26), Public Trust at 2.64, Political Participation at 2.45, and Voluntarism at 2.44.

Table 3 shows the cross tabulation of the different age groups with the mean scores of the 8 VCC constructs.

<table>
<thead>
<tr>
<th>Table 3: Cross Tab Age Range with VCC Constructs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
</tr>
<tr>
<td>GenTrust</td>
</tr>
<tr>
<td>CommPart</td>
</tr>
<tr>
<td>PublicTrust</td>
</tr>
</tbody>
</table>

The shaded cells represent highest mean scores attained by a particular age group within the construct, whereas the striped cells represent the lowest means scores (the opposite for Inter-Group Alliances). Clearly, the youth group (20-35 years old) has the highest mean scores in 6 of the constructs, namely Willingness to cooperate, General Trust, Sense of Belonging, Community Participation, Political Participation, and Voluntarism. The youth group also achieved second highest mean score for Public Trust. This indicates that the youth group tends to believe that cohesion can be better achieved through the virtual community that they participated compared to the other groups. On the other hand, the teenager group (19 years old and below) scored the lowest mean in 5 of the constructs and second lowest in the other 2 constructs, but achieved highest score for Inter-Group Alliances. This may suggests that the youngest group tends to only interact among themselves, dislikes politics, lacks the spirit of voluntarism, and up to certain extend lack of trust on others outside their group.

The worst score however came from the senior citizen group on Voluntarism. However this may be quite misleading as there were only 6 respondents in this age group and their views may not represent the actual situation. The next worst score is worth mentioning as they belonged to the teenager group, that is Political Participation. Their dislike of politics may be due to their misunderstanding of politics influenced by the political scenario that is happening around them.

**IV CONCLUSION**

This study has brought out new insight into our understanding of virtual community and the social media as a medium of unity and social cohesion. Whilst society is embracing social media as a tool for communication and interaction, looking from the perspective of cohesion this finding suggests that overall respondents perceived that social cohesion and unity can be achieved through the social media. Based on the trends in terms of usage, popularity and purpose, the future for virtual community will be ubiquitous as more and more people from all walks of life will embrace the technology to reach others. The issue of social cohesion will be more challenging as findings of this study indicate social as the most popular intention for using whereas it can be promising for the purpose of education. This study also found General Trust among members, Willingness to cooperate and help fellow members, and Sense of belonging and identity with the virtual community are the 3 important measures of VCC. Lastly, examining the age group, youth was found to perceive cohesion via virtual community better than the other age groups, whilst the teenage group has the lowest negative perception towards cohesion in the virtual community they participated. To address this concern, social media and the concepts of the 8 constructs of the VCC should be introduced in the school curriculum. The education development plan (MOE, 2013) emphasized strengthening unity as part of the education transformation. Therefore future study can use this study and the instrument that has been developed to support the initiative by
MOE to measure unity baseline among teenage school-going children. This study can also be extended to strengthen the model fit and underlying structure of the construct space so that future studies can predict factors that can influence VCC and proactive actions can be taken to address hidden problems before they are too late. In addition, as a form of intellectual capital, social cohesion is beneficial towards competitive intelligence.

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