ABSTRACT

The importance of virtual communities has grown dramatically as these communities influence brand and purchase decision of consumers. These virtual communities are heavily influenced by opinion leaders and provide a means to disseminate information regarding the organization’s products and services and to engage with current and potential customers. This research develops and tests a conceptual model that captures the determining factors of involvement and opinion leadership as an indicator of active participation in various virtual communities. The findings show that the relationships among determining factors, consumers’ involvement, opinion leadership, and usage are contingent upon the type of virtual community.

KEYWORDS: Type of virtual community, Opinion leadership, Involvement, Usage, Social influence process

INTRODUCTION

The evolution from traditional to interactive social media marketing highlights the growing importance of incorporating virtual communities, social interaction, and various other web 2.0 activities into the development of the organization’s marketing strategy (Bodendorf & Kaiser, 2009; Singh, Hansen, & Podolny 2010). The users are provided with various features and tools that allow two-way communication and build social ties or connections with other participants in various types of virtual communities (Boyd & Ellison, 2008; Trusov, Bodapati, & Bucklin, 2010). In these virtual communities, the interaction and communication among participants cannot be fully controlled or directed by the organization’s marketers (Chen & Xie, 2008). Thus, organizations need to focus on clearly understanding how to effectively operate in an evolving environment where they do not have full direct control of the marketing communication and must incorporate and use this new form of indirect communication and engagement with customers.

While the importance of understanding the role of opinion leaders and the social influence process of managing virtual is well recognized in the literature, little attention has been given to the various determining factors of the social influence processes and the resulting opinion
leadership and usage of various virtual communities (Tsai & Bagozzi, 2014). In addition, there exist gaps in our understanding of what determines virtual community involvement and active participation by consumers. There is limited empirical research in this important, new and evolving area. Therefore, the purpose of this research is to provide insights into the social influence process and the determinants of virtual community involvement and active participation by consumers. Specifically, this study makes the following contributions. This study develops a social influence process of virtual community involvement and opinion leadership by identifying important determining social influence factors and their structural relationships. Building on the opinion leadership literature in the traditional marketing, this study highlights the concept of opinion leadership in virtual communities as a form of active participation, and evaluates the various determining factors of opinion leadership.

THEORETICAL FOUNDATIONS

Marketers are increasingly focusing on the virtual communities to understand how virtual communities influence the organization’s marketing mix, what the role and mechanisms of opinion leadership are, and how to build unique customer relationships through virtual communities (Dholakia, Bagozzi, & Pearo, 2004; Hansen, Shneiderman, & Smith, 2011). The potential consumers’ usage of virtual communities can be influenced by various factors including social influence processes, individual involvement, and opinion leadership. In addition to being influenced by these various factors, individuals acting in the role of opinion leaders can affect the usage of other participants in these virtual communities. The social influence processes and consumers’ virtual community activities are also contingent upon the type of virtual communities they are associated.

Social Influence Factors

Consumers’ adoption and usage behavior of various virtual communities can be understood from the perspective of social influence. Previous research has utilized the concept of social influence to explain group and collective behavior. The social group identity is characterized by the cohesiveness to the social group, by the conformity to in-group norms, and by the discrimination against out-groups and can be based upon respect of another individual (Riedlinger et al, 2004). As such, social group identity contains three components labeled cognitive, evaluative, and affective (Bagozzi & Lee, 2002; Tsai & Bagozzi, 2014). The cognitive component for social group identity is focused on the attitudes or the information content that the group participant uses. The evaluative component for social group identity is focused on the relative increase in the individual’s self-image for being part of the social group or virtual community. The affective component for social group identity is focused on the expected emotional consequences for being a participant in the social group or virtual community. In other words, the virtual community participants’ self-image can be partially satisfied by the virtual communities that they choose to become involved.

Involvement

The social influence factors should lead to the intention of the individual to either acquire information or to share information they have acquired (Zhao et al, 2012). Zhao et al. (2012) report that an individual’s sense of belonging is stronger for the intention to share information than its effect on the intention to acquire information. So, individuals that feel a part of the virtual community and are involved in the virtual community tend to share information with others in the community. This belonging is vital to the virtual communities as the communities exist and depend upon the contribution behavior by their members (Tsai & Bagozzi, 2014).
Further, Lin (2008) reported that this sense of belonging has a weak effect on virtual community loyalty and Teo et al. (2003) reported that this sense of belonging has a strong effect on the intention to return to the virtual community. Thus, involvement is strongly linked to the social influences but each affects the contribution behavior to a varying degree. In fact, Tsai & Bagozzi (2014) argue that the subjective norms are less effective than either group norms or social identity in encouraging contribution behavior by the virtual community members.

Opinion Leadership

In an online, interactive environment, users can influence and be influenced by other participants in their chosen virtual communities. According to Valente and Pumpuang (2007), opinion leaders are those groups of users who can influence the attitudes, beliefs, motivations, opinions, and behaviors of other participants in the online virtual community. The opinion leaders emerge as trusted participants with access to a large social network and possess the ability to diffuse innovations and information (Lee, Cotte, & Noseworthy, 2010). The opinion leader, in the role of a social hub, can exercise influence to affect the virtual community’s information and innovation adoption (Goldenberg et al, 2009). As opinion leaders span the social boundaries among various virtual communities and social media site groups, their influence comes from across the social context rather than solely from within a specific social group or virtual community. Thus, opinion leaders act as bridges or conduits between social groups gaining access to and providing valuable information from one social group and informing others in another social group (Roch, 2005).

Usage Intention

Soroka and Rafaeli (2006) argue that becoming familiar with the members and the virtual community mission and goals is an important initial stage for potential virtual community members. Becoming comfortable with the virtual community ensures that the individual would be willing to share information with other members of the virtual community. This reinforces the importance of ensuring that individuals develop a sense of belonging so that members become involved and use the information provided by the virtual community. This perceived connection of individual members with the virtual community can significantly influence trust of the virtual community and its opinion leaders (Lu et al., 2010). From the social influence viewpoint, this perceived connection assists in communicating the shared understanding and creation of collective goals. This connection results in stronger social ties among virtual community members and increased likelihood of usage. Lee and Ma (2013) contend that individuals who desired information seeking, socializing, and status seeking were more likely to share and use information in virtual communities in which they belong.

HYPOTHESES

The impact of social influence upon online social technologies has been recognized in the literature (Bagozzi & Dholakia, 2002). Since subjective norm represents the influence of expectations from significant others in the consumer’s decision making, before the consumer has any actual usage experience with a new system, information from the primary reference groups, such as family or friends, is important for their adoption and continuous usage decisions (Cheung & Lee, 2010). If a consumer finds group norms congruent with their own value system, the consumer finds the content of the behavior intrinsically rewarding leading to willingness to engage in the target behavior (Kelman 1974; Bagozzi & Dholakia, 2006). Bagozzi and Dholakia (2006) suggest that when consumers feel that they share common values or goals with other members of virtual community, they are more likely to participate the virtual community as a
member. As participation in these online virtual communities is believed to be a proxy for social identification (Brown, Broderick, & Lee, 2007), social identity can have a significant effect on behaviors or intentions as it occurs through the interaction with other participants (Cheung & Lee, 2010). Thus, the following hypotheses are presented.

**H**₁: A consumer’s perceived (a) subjective norm, (b) group norm, and (c) social identity of a virtual community has a positive effect on involvement.

When group members believe that the group shares mutual responsiveness and collective commitment, they tend to support other participants and commit more strongly to the group (Bagozzi & Dholakia, 2006). Participation in an online virtual community or a social media site implies the desire of that user to engage in a joint action and emphasizes collective agreement with other participants in that community or site. As similar group interactions can strengthen the social ties among participants, these users involved in the joint tasks will be more likely to get actively involved in the social media sites (Bagozzi & Dholakia, 2006; Cheung & Lee, 2010). The social identity provides the virtual community participants with self-awareness that they are linked to the group (Zeng, Huang, & Dou, 2009) and this can influence their loyalty, active participation, and leadership in the virtual communities (Homburg, Wieseke, & Hoyer, 2009). These discussions lead to the following hypotheses.

**H**₂: A consumer’s perceived (a) subjective norm, (b) group norm, and (c) social identity of a virtual community has a positive effect on opinion leadership.

Based upon the social ties in the network, the participants in the virtual community are willing to be influenced by network leaders as the network leaders are in a desirable social position and are viewed by the virtual community participants as competent, unbiased sources of accurate and trustworthy information (Lee, Cotte, & Noseworthy, 2010). As the opinion leaders have the desire to become connected and share ideas with others in the virtual community, they have stronger motivation to transmit or seek ideas or opinions (Phelps et al, 2004; Sun et al, 2006). According to Çelen, Kariv, and Schotter (2010), opinion leaders are concerned about their reputation for being well-informed and, as such, opinion leaders will continue reading and responding to the posted information and post new information through increased usage of the social media sites. It is important for opinion leaders to be considered as an influential participant by other users and used as a primary source for information and advice. Opinion leaders are active co-producers of value and meaning through increased usage of the virtual community sites (Kozinets et al, 2010). Thus, this previous discussion leads to the following hypotheses.

**H**₃: The consumer’s (a) involvement and (b) opinion leadership has a positive effect on usage intention of a virtual community.

**METHODS**

**Research Design**

A professional social network community was used for this study. All active members in this community were asked to participate in this research project. The 1,540 members included alumni, employers, students, and faculty of a professional graduate program of a Midwest university. The data for this study were collected using an electronic survey form. An invitation to participate in the study was emailed to each member of the community. Three weeks after the initial email was sent another follow-up email was sent urging the member to complete the
survey. A total of 205 completed responses were received, resulting in a response rate of 13.3%.

**Measures**

The survey instrument used in this research contained question items measuring determining factors, involvement, opinion leadership, and usage. Also included in this questionnaire were various demographics items such as age, gender, and level of education attained. The respondents indicated which virtual community they are most actively involved in and asked to consider that virtual community in answering questions. Subjective norm was measured by a two-item rating scale adopted from Bagozzi and Dholakia (2002). Group norm was adopted from Dholakia et al. (2004). Social identity was captured by using a six-item Likert scale. Social media involvement was captured by using a four-item Likert scale. The items in this scale included involving, necessary, practical, and relevant. These items are adapted from Voss, Spangenberg, and Grohmann (2003). Opinion leadership was captured by using a five-item Likert scale adapted from Childers (1986), Flynn et al. (1994), and Sun et al. (2006). Virtual community usage intention was captured by a two-item itemized rating scale adapted from DeLone (1988) and Lim et al. (2008).

**RESULTS**

**Confirmatory Factor Analysis**

The measurement properties were assessed in one confirmatory factor analysis (CFA) using LISREL 8.8. The fit indices showed that the model resulted in a good fit to the data ($\chi^2 = 742.0$, d.f. = 174, normed fit index (NFI) = .90, comparative fit index (CFI) = .92, root mean square residual (RMSR) = .060). All the items loaded significantly on the expected constructs indicating convergent validity of the measures. The composite reliabilities for the six scales ranged from .77 to .92, with factor loadings ranging from .64 to .99 ($p < .01$). Discriminant validity was tested by performing the chi-square difference tests. In all pairs of constructs, the critical value was exceeded indicating discriminant validity. The CFA results suggest that all measurement scales have adequate reliability and validity.

**Hypotheses Test**

Data were analyzed by path analysis using LISREL 8.8. The chi-square for the model is 4.83 with 6 degrees of freedom ($p = 0.57$). The goodness-of-fit (GFI) is .99 with normed fit index (NFI) of .99. The root mean square residual (RMSR) is .020. The goodness of fit indices and small RMSR value suggest that the hypothesized model is supported by the data.

T-test results show that hypothesized path from subjective norm (SN) to involvement (INV) is significant with the path coefficient of 0.27. These results provide partial support for Hypothesis 1a. The path from group norm (GN) to involvement (INV) is not significant providing no support for Hypothesis 1b. The path from social identity (SI) to involvement (INV) is significant with the path coefficient of 0.31. These results provide support for Hypothesis 1c.

The path from SN to opinion leadership (OL) is significant with the path coefficient of -0.16. However, the sign of the significant coefficient is not in the expected direction. These results do not provide support for Hypothesis 2a. The path from GN to opinion leadership (OL) is significant with the path coefficient of 0.18. The sign of the significant coefficient is in the expected direction. These results provide support for Hypothesis 2b. The path from SI to
opinion leadership (PL) is significant. The sign of the significant coefficient (0.25) is in the expected direction. These results provide support for Hypothesis 2c.

T-test results show that hypothesized path from involvement (INV) to opinion leadership (OL) is significant with the coefficient of 0.48. The sign of the path coefficient is in the expected direction supporting Hypothesis 3a. The path from involvement (INV) to usage intention (UI) is significant with the coefficient of 0.18. These results provide support for Hypothesis 3b. The path from opinion leadership (OL) to usage intention (UI) is significant with the coefficient of 0.41. These results provide support for Hypothesis 3c.

DISCUSSION AND CONCLUSIONS

This study developed and empirically tested a conceptual model that captures the social influence factors and involvement, and their relationships with opinion leadership and usage intention of virtual communities. The findings provide some insights on how virtual community opinion leadership is shaped and how virtual community usage intention is determined and offer managerial and theoretical implications.

Opinion leadership is determined by the users’ perceived social influence factors and involvement. This study found the significant influence of subjective norm and social identity on opinion leadership. Both group norm and social identity as well as involvement show significant effect on opinion leadership. Unexpectedly, SN shows the negative significant effect on opinion leadership. These results provide guidelines for developing strategies for managing virtual communities. Marketing managers can design and improve their virtual communities to enhance the perception of subjective norm, group norm and social identity of virtual communities. Marketing managers can influence and manage virtual community sites indirectly through opinion leaders and develop guidelines or policies to provide accurate information in an appropriate manner.

The findings of this study provide theoretical implications and future research directions. This study developed and tested a conceptual model that identifies the determinants of virtual community opinion leadership and captures the relationships among those determinants leading to opinion leadership and usage intention. The model highlights the importance and role of opinion leadership. As virtual communities are playing increasingly important role in strategic marketing decisions, further research is needed to validate the proposed model and include additional determining factors such as decision context, brand influence and other user characteristics in the model.

Care should be taken in interpreting the findings of this study. Although the social network community members used in this study are appropriate for this type of study, they are highly educated with most of them having professional degrees. The reported group dynamics may not be the typical group interactions found in many social media sites. Therefore, the generalizability of this study’s findings is somewhat limited. It is possible that the opinion leadership and usage are determined differently depending on the type of virtual communities and the characteristics of user groups.

REFERENCES

References available upon request.