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SENSE OF VIRTUAL COMMUNITY: DETERMINANTS AND THE MODERATING ROLE OF THE VIRTUAL COMMUNITY ORIGIN

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Extended Abstract¹

INTRODUCTION

With the rapidly broadening coverage of the Internet, the *virtual community* has become an interesting topic for IT professionals and management researchers. Despite the explosive growth of virtual communities on the Internet, limited empirical research has been conducted to study the issues related to the psychological states of the virtual community members.

The objective of this study is to enhance the existing knowledge about virtual communities by introducing a new construct, sense of virtual community, and empirically validating the effects of virtual community characteristics on the sense of virtual community. This study intends to answer the following questions:

- What is the *sense of virtual community*? Is there any unique property differentiating it from a traditional community?
- What are the key factors affecting the sense of virtual community at the individual level?
- Does the origin of a virtual community moderate the relationship between virtual community characteristics and sense of virtual community?

SENSE OF VIRTUAL COMMUNITY AND VIRTUAL COMMUNITY ORIGIN

Computer-mediated community environments need the commitment of their members just like traditional community environments, based on the fact that we understand the *virtual community* to be “a community extended via emerging technologies.” Among the four elements (membership, influence, integration, and emotional connection) that McMillan and Chavis (1986) regard as the components of a sense of community, *membership* and *influence* are considered as common perception factors in both virtual and traditional communities. Reflecting on the unique characteristics of the virtual space, we introduce the new dimension of *immersion*, using an expanded concept of *flow* (Csikszentimihalyi 1975; Hoffman and Novak 1996). Thus, sense of virtual community is treated as having three dimensions: (1) *membership*—people experience feelings of belonging to their virtual community, (2) *influence*—people influence other members or their community, and (3) *immersion*—people feel the state of flow during virtual community navigation. We define *sense of virtual community* as the psychological state of perceiving the three dimensions of membership, influence, and immersion, formed through the activities of the virtual community.

With respect to the origin of virtual communities, they can be dichotomized as *online originated* and *offline originated*. We are interested in examining the moderating effect of the virtual community origin on the proposed relationships between virtual community characteristics and sense of virtual community.

¹**Keywords:** Virtual community, sense of virtual community, virtual community origin.

RESEARCH MODEL AND HYPOTHESES

We concentrate our efforts on developing a conceptual foundation for understanding a virtual community, introducing *sense of virtual community*, its determinants, and the moderating variable. The research model is presented in Figure 1. The related hypotheses are:

- Hypothesis 1: There is a positive relationship between *leaders' enthusiasm* and *membership*.
 Hypothesis 2: There is a positive relationship between *similarity* and *membership*.
 Hypothesis 3: There is a positive relationship between *offline activities* and *membership*.
 Hypothesis 4: There is a positive relationship between *offline activities* and *influence*.
 Hypothesis 5: There is a positive relationship between *offline activities* and *immersion*.
 Hypothesis 6: There is a positive relationship between *playfulness* and *influence*.
 Hypothesis 7: There is a positive relationship between *playfulness* and *immersion*.
 Hypothesis 8: The *virtual community origin* moderates the relationship between *virtual community characteristics* and *membership*.
 Hypothesis 9: The *virtual community origin* moderates the relationship between *virtual community characteristics* and *influence*.
 Hypothesis 10: The *virtual community origin* moderates the relationship between *virtual community characteristics* and *immersion*.

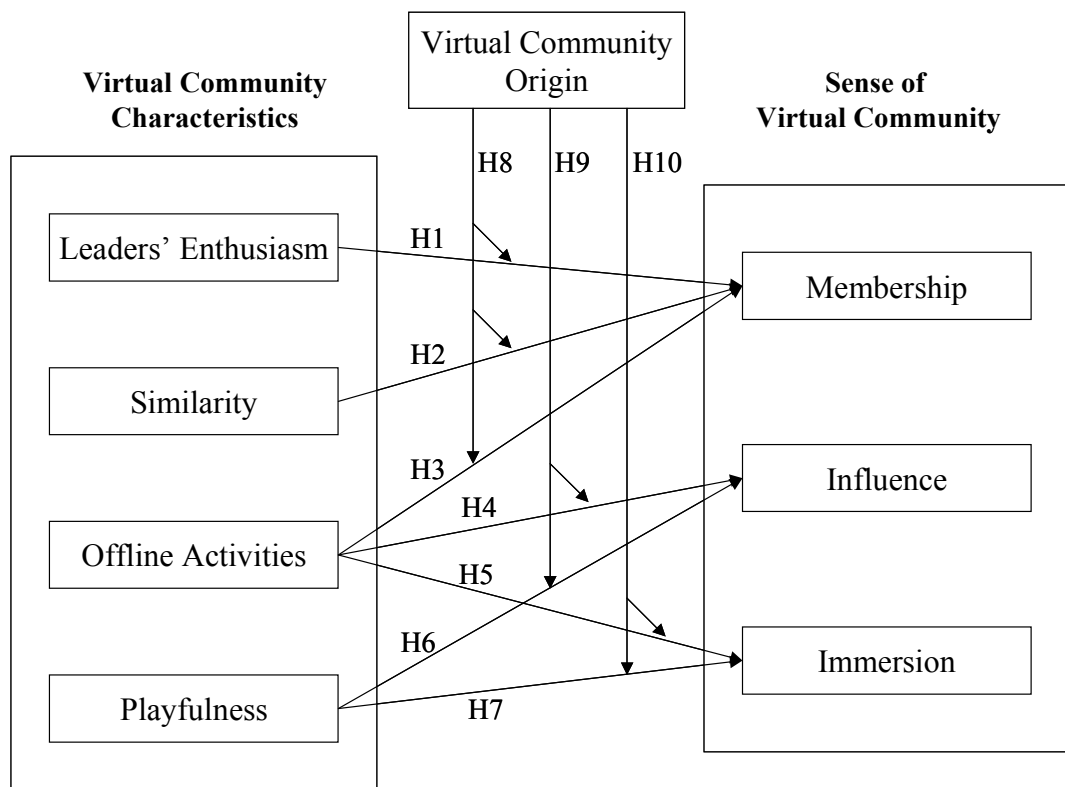


Figure 1. The Research Model

METHODS, RESULTS, AND DISCUSSIONS

We developed the instruments for our variables based on the relevant literature, collected data with a convenient sampling method (172 responses with 76% response rate), and conducted the factor analysis, the reliability test, the multiple regression analyses, the moderated regression analyses (Atuahene-Gima and Li 2000), and others.

By analyzing 172 usable paper-based questionnaires, virtual community characteristics affecting the sense of virtual community were detected at the individual level. *Membership* was significantly affected by (1) *leaders' enthusiasm*, (2) *perceived similarity*, and (3) *offline activities* (Hypotheses 1, 2, and 3 are supported). *Offline activities* had the strongest impact on *membership* and *influence* in the virtual community. This is consistent with the results of prior studies: strong ties cannot be sustained without physical cues (e.g., Beniger 1987). However, the variable of *offline activities* does not seem to be a significant factor affecting *immersion* (Hypothesis 5 is not supported). We interpret this to mean that *offline activities* incur two effects: (1) fostering members to commit to the community and (2) preventing members from becoming fully immersed in the community online activity. We presume that the two contradicting effects of *offline activities* on *immersion* might cancel each other and suggest that further research will be necessary for developing a relevant contingency theory. *Immersion* was influenced only by *playfulness* (Hypothesis 7 is supported), while *perceived influence* was significantly affected by *offline activities* and *playfulness* (Hypotheses 4 and 6 are supported). The result implies that a virtual community should find and meet the needs of its members, supporting Kim's (2000) observations that successful communities evolve to keep pace with the changing needs of their members. It also suggests that virtual communities should encourage their members to meet each other in the offline setting, so that their members may perceive high *influence*.

Another important finding of this study is that the impacts of virtual community characteristics on the sense of virtual community are *contingent* on the *virtual community origin*. Both *leaders' enthusiasm* and *similarity* affected *membership* more strongly in the case of an online originated virtual community than in the case of an offline originated one (Hypothesis 8 is supported). Also, *offline activities* affected *influence* more strongly in the online originated virtual community than in the offline originated one, which supports Hypothesis 9. The results imply that in the case of an online originated virtual community, practitioners should concentrate more on empowering active leaders, enhancing perceived similarity with other members, fostering interactions between members, and holding various events in an offline setting. However, no significant moderating effect of the virtual community origin on the relationships between virtual community characteristics and *immersion* was found (Hypothesis 10 is not supported).

Since the data was collected only in Korea and the target communities were chosen with a convenient sampling method, the general applicability of the findings is limited. Also, there exist high correlations among independent variables, which seem to be caused by CMV (Common Method Variance). Nevertheless, we believe that establishing the *sense of virtual community* construct provides a valuable perspective for in-depth understanding of virtual community and its members' behaviors.

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