Chapter 13
A Qualitative Study of Web–Based Knowledge Communities:
Examining Success Factors

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ABSTRACT

Web-based knowledge communities (WKCs) have become prevalent in recent years for individuals with similar interests to collectively engage in knowledge acquisition and exchange in a global context. The growing popularity of WKCs and their fast penetration into almost all aspects of life call for more research on this important area. In this study, we explore and examine success factors of WKCs. To accomplish this research objective, we conducted a qualitative study to uncover a list of success factors that would affect the success of WKCs. Through open and axial data coding techniques using a grounded theory approach, we identified four main success factors: information quality, system quality, community governance, and pro-sharing norms. We further categorized dimensions of information quality, system quality, and community governance. Based on the results, we proposed a conceptual framework to examine WKC success. Implications for research and practice are discussed.

INTRODUCTION

As computer-medicated communication (CMC) technologies become increasingly ubiquitous in our daily lives, virtual communities have gained increasing popularity (Ridings & Gefen, 2004). Virtual communities have allowed individuals with similar interests to exchange information collectively to fulfill common goals for social, professional, educational or other purposes (Rheingold, 1993). Virtual communities can be established for different purposes such as interests, e-commerce, fantasy, and social support (Armstrong & Hagel, 1996). This study focuses on a type of virtual community of interest, called Web-based Knowledge Communities (WKCs). WKCs have become prevalent and useful tools for knowledge acquisition, exchange, and collaborative decision making. We define a WKC as a virtual community comprised of individuals who share common interests for a knowledge domain and who work together to expand their understanding of the knowledge domain through ongoing knowledge sharing and acquisition. WKCs rely on community members to voluntarily collaborate and share knowledge to build a knowledge repository within the community. As a notable example, Experts-Exchange.com, a global knowledge sharing community for IT professionals, has a searchable knowledge base of over 17 million postings by more than 230,000 expert members.

Virtual communities are considered as socio-technical systems which are comprised of both technical and social components (e.g., de Moor, 2005; Kling & Courtright, 2003). From a social perspective, WKCs are considered Web-based collaboration systems for knowledge exchange. They differ from other types of virtual communities such as e-commerce and fantasy communities in that members participate mainly to expand their knowledge base and seek or provide help to others with similar interests rather than for entertainment purposes. From a technical perspective, with the advance of Web technologies, WKCs often offer Web-based discussion forums and interactive communication systems that go beyond traditional email-based or listserv-based community systems. In other words, WKCs have become more common and offer a richer set of system features and functionalities, such as multiple communication channels via discussion forums, private messages, online chatting tool, and a dedicated search engine to allow people to search the archived contents, member profile information, online polls, etc.

Due to the phenomenal growth of virtual communities, there has been an increasing body of research on virtual communities. Previous virtual community research has examined their roles in building social capital (Kankanhalli, Tan, & Wei, 2005; Wasko & Faraj, 2005), seeking and sharing knowledge (Ardichvili, Page, & Wentling, 2003; Wasko & Faraj, 2005; Wenger, 2004; Zhang & Watts, 2003), relationship building (Maloney-Krichmar & Preece, 2002; Preece, 2000), and virtual community success (Ginsburg & Weisband, 2004; Leimeister & Krcmar, 2004; Lin & Lee, 2006; Preece, 2001; Sangwan, 2005). However, the community type, theoretical grounding, and research objectives in these studies vary considerably. The majority of these studies focus either on technical properties or the social characteristics of the communities. Knowledge communities have been viewed as complex social-technical systems which are built to support members' social interaction and knowledge exchange (Kling, McKim, & King, 2003; Lu & Cai, 2000; Mumford, 2006). Despite the numerous studies on online knowledge sharing and social interaction, research specifically related to WKCs has been limited. There has also been a lack of qualitative research on the underlying factors that affect the success of WKCs.

In this paper, we took a qualitative approach to identify and examine success factors of WKCs. Our research addresses the following research question: what factors influence the success of Web-based knowledge communities? To answer

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