# Peer-to-Peer Service Quality in Virtual Communities

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## ABSTRACT

*Virtual communities are an increasingly popular way to conduct business over the Internet. However, from the service provider's point of view they pose special challenges. In particular, unless the provider itself engages in content or service provision, the service relies entirely on its members for provision of services. The members should thus be seen as resources for service provision. This type of networked service production system implies challenges in terms of service quality management and, subsequently, value creation for community members. This paper explores these issues by revisiting service marketing and service operations literature on service quality. Analysis of the literature indicates that firms facilitating virtual communities need to ensure the quality of their service by not only ensuring technical quality but also by nurturing the social aspects of the community that have an impact on the willingness of community members to provide service to each other.*

*Keywords:    Peer-to-Peer, Service Production System, Service Provision, Service Quality, Virtual Communities*

## INTRODUCTION

Leading firms in the Web 2.0 phenomenon such as Facebook, Twitter, MySpace, Habbo and YouTube draw hundreds of millions of users to participate in virtual communities. These communities depend on a service provider to develop and maintain a technological platform, which enables communication between the members of the community, as well as other services. However, virtual communities often rely heavily on the content and services provided by the community itself. Different purposes for virtual communities include collaboration (e.g.,

SourceForge, Skype), creation and maintenance of contacts (e.g., LinkedIn, Plaxo), gaming (e.g., World of Warcraft), sharing information (e.g., Wikipedia, Google Earth), and enabling consumer-to-consumer retailing (e.g., eBay, Amazon) (Messerschmitt, Peltonen, Laine, & Oza, 2008).

From the perspective of the service provider, building a commercially successful virtual community poses a specific challenge. The value of the community to its members often depends on the services provided by members of the community to other members, and subsequently has a direct impact on the value of the community to potential advertisers and third-party content creators. Yet, the service

provider cannot directly affect the quality of services – the general satisfaction of the members of a virtual community with the community. As indicated by Hofacker et al. (2006), much of the extant research on e-services has been directed towards e-services which are complements or substitutes to existing offline services, for example e-commerce. In such a setting, the service provider has much more control over the quality of the service compared to virtual community services.

Additionally, despite the extensive research on service quality in the Internet context, most of it has mostly concentrated on the technical aspects of web sites (Kuo, 2003; Santos, 2003; Yang & Jun, 2002; Zhang & Prybutok, 2005). Furthermore, most of the papers have considered service quality in commercial web sites, and online purchasing or "e-tailing" (Parasuraman, Zeithaml, & Malhotra, 2005; Zeithaml, 2002; Zeithaml, Parasuraman, & Malhotra, 2002). The quality of community-based services has been analyzed only in relation to these commercial communities (Wiertz & de Ruyter, 2007; Wasko & Faraj, 2005). Thus, in contrast to Wiertz and de Ruyter (2007) and Yen and Hsu (2006), who discuss communities related to B2C and B2B e-commerce sites, we analyze service quality of a commercial virtual community. In other words, we are interested in communities that provide value to its own members, which is facilitated by web sites managed by a service provider. In these cases, consumer-to-consumer (C2C) service actually becomes the core offering of the firm. In summary, what is missing is an analysis of determinants of perceived service quality of a virtual community when viewing them as networked service production systems (Hofacker et al., 2006).

This paper explores the issues of service quality and value creation in a virtual community where the community members bear the main responsibility of providing the service instead of the service provider itself. To explore these issues, we assess how the factors impact an incumbent service quality framework, ES-QUAL (Parasuraman et al., 2005), which is based on the assumption that the service provider has nearly complete control over service quality. In addition, we identify mechanisms the service provider can use to indirectly manage the quality of the service and thus regain some control over service quality. Although we argue that the community plays a critical role in determining service quality, the web site must obviously still meet the technical, tangible quality requirements of community members (Parasuraman et al., 2005). In other words, the service provider must also ensure that the quality of the technical platform is satisfactory or potential members of the community may not see the community as valuable enough for further contribution.

The remainder of this paper is organized as follows. First, we review the literature on virtual communities, service quality, and e-service quality. Based on this review, we propose a framework on the antecedents of service quality in community networked services, and the consequences of this service quality perceived by the members of the virtual community. Furthermore, we also identify mechanisms that the service provider may use to manage the quality of service provided by the members of the community.

## LITERATURE REVIEW

### Virtual Communities and Service Production

Due to virtual community being a relatively new concept, multiple definitions exist for it in the literature, with no common consensus (Leimeister & Krcmar, 2004). Another reason for this is that a virtual community is a multi-disciplinary concept (Preece, 2000), and researchers tend to define the concept from the perspective of their own discipline. The most straightforward way to define a virtual community is to consider it as a special case of a conventional community. However, sociologists struggle to define even the conventional community (Preece, 2000). To explore the areas of common agreement on the definition of a community, Hillery (1955) studied a wide number of community definitions and found that researchers agree that a com-

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