Chapter 18
ICT Adoption by Virtual Organizations in the Developing Countries:
A Case of SME Clusters in Pakistan

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ABSTRACT

This chapter empirically explores ICT adoption by virtual organizations in developing countries, taking the case of small and medium enterprise clusters in Pakistan. Virtual organizations consist of internally independent parties linked by ICTs to collaborate for the accomplishment of common objectives. Effective communication is a key to develop social relationships, ultimately leading to the improvement of trust and collaboration among parties in a virtual organization. ICT is considered as a vital element for communication, collaboration and trust building in virtual organizations. However, this research explains that ICT adoption by virtual organizations in the developing countries would be different mainly due to the lack of advanced ICTs, strong inclination of organizations toward face-to-face communication, strength of social system, and the weakness of the legal system in these societies.

INTRODUCTION

Virtual organizations emerged as a result of revolution in information and communication technology (ICT) in the last quarter of 20th Century (Davidow & Malone, 1992). In its essence, a virtual organization is a group of independent firms or teams, linked together temporarily by means of electronic communication and information technology to accomplish common objectives (Davidow & Malone, 1992; Grenier & Metes, 1995). All the researchers agree on the importance of ICTs for establishing a virtual relationship but, their nature and extent in a particular virtual organization is still debatable. The fact is that the use of ICTs in a virtual organization could vary with the varying degrees of geographical dispersion of parties; the nature of their relationship; size of organizations; and the social structure in which organizations exist. Moreover, as identified by Handy (1995), establishing trust among parties requires them to maintain face-to-face communication. Therefore, effective social relationships among parties in a virtual organization demand that a balance may be created between face-to-face and ICT-enabled communication.

This chapter is based on the research proposition that face-to-face communication is more important in virtual organizations in the developing countries, where the social as well as organizational structure demands frequent face-to-face contacts among parties. Therefore, ICT adoption by virtual organizations in these societies is dissimilar to the organizations in the developed economies. To support our proposition we conducted empirical research on eighty selected Small and Medium Enterprises (SMEs), twenty each from four different industrial clusters in Pakistan. Selection of clusters was made on the basis of the nature of industry and the involvement of enterprises in networking and virtual work. The results of our research suggest that parties rely on the use of ICTs in their virtual relationships but they also emphasize upon the need for face-to-face contact for maintaining trust and social relationship. This was mainly attributed to the less developed nature of ICTs; the social structure which requires maintaining close contacts and social relationships even with business partners; and the legal structure that does not very well safeguard the interest of parties interacting only with ICTs. These tendencies have been observed in the other developing economies as well. Therefore, we conclude that in the developing economies, ICT adoption in virtual organizations must be accompanied by the development of trust and social relationship through face-to-face communication.

BACKGROUND

With the advancements in globalization and ICTs, new organizational structures based on flexibility, efficiency and market mechanisms have emerged (Hamel & Prahalad, 1994; Hagel & Singer, 1999). Virtual organization is considered as the most flexible among these structures, which is based on temporary relationship of parties to exploit the emerging market opportunities (Hughes, O'Brien, Randall, Rouncefield & Tolmie, 2001; Lee, Eom, Kim & Katerattanakul, 2007; Travica, 1997). In his definition of virtual organization, Travica (1997) emphasizes upon geographical dispersion of parties and the importance of electronic communication to run the production processes. Malhotra, Majchrzak, and Rosen (2007) and Webster and Wong (2008) also present it as an organization with geographically distributed members, working together through electronic means of communication and information sharing. Whereas, Wang (2000) presents mutual objectives of participant organizations, ICT infrastructure, and dynamic relationships built on various standards and rules as distinguishing characteristics of virtual organization. A relatively broader definition of virtual organization is given by Lipnack

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