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The Dynamics of Virtual Teams

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INTRODUCTION

The world continues to be driven by the rapid development of information technology and globalization. Not surprisingly, the working environments that have been projected to grow the fastest are all related to the usage of computers, the Internet, and information systems. With globalization, many multinational corporations (MNCs) are increasingly employing virtual teams (VTs). It was reported that 137 million workers worldwide are involved in some form of remote electronic work (Solomon, 2001).

Some examples of companies that are already using virtual teams are Nortel Networks Corporation, which has 80,000 employees located in 150 countries; Price Waterhouse, which has 45,000 employees in 120 countries; and Deloitte & Touche LPP in New York, which has 90,000 employees in 130 countries (Geber, 1995; Solomon, 2001). The survey by Gartner Group Incorporation (Biggs, 2000) further estimated that 60% of the professional and management tasks at Global-2000 companies would be done via virtual teams by 2004.

In this article, we present the issues and challenges that are encountered by VTs in the same organization. In this respect, we will analyze VTs in the context of intraorganizational (within one organization) and not interorganizational (across different organizations). Our emphasis is on team members that have diverse cultural backgrounds and work in a global environment such as those in MNCs. Hence, a virtual team is defined as a group of members that collaborate and communicate primarily via computer-mediated communication (CMC) without any geographical boundaries, and the composition of the team members consists of people from different cultural backgrounds: for example, people from Motorola in Malaysia collaborating on a 12-week project with people from Japan and in the U.S. In essence, the project involves team members from three different countries—Malaysia, Japan, and the U.S.—yet all of them belong to the same organization: Motorola. Nonetheless, we do acknowledge that VTs can also include team members with similar cultural backgrounds, or team members that belong to different or multiple organizations, but both aspects are not the emphasis in our article.

BACKGROUND

The conceptual and empirical research conducted on the topic of VTs has also increased tremendously over the past years when electronic-mediated technologies became more ubiquitous (Belbin, 1981; Geber, 1995; Jarvenpaa & Leidner, 1999; Kostner, 1994; Townsend, DeMarie, & Hendrickson, 1996). Many researchers began to look at many different issues faced by virtual teams. Some of the latest works that concern VTs are studies that look at personality types and interaction styles that affect the communication of VTs as compared to conventional team performances (Potter & Balthazard, 2002), the use of technology in global virtual collaboration (Qureshi & Zigurs, 2001), the effects of the temporal coordination mechanism on conflict management, the behavior of VTs supported by an asynchronous communication technology (Montoya-Weiss, Massey, & Song, in press), radical innovations without collocation (Malhotra, Majchrzak, Carmen, & Lott, 2001), the understanding of the best practices of VTs (Lurey & Raisinghani, 2001), sharing and reusing knowledge between team members in other organizations, and virtual relationships (Majchrzak, Rice, King, Malhotra, & Ba, 2000). Problems stemming from intercultural communication, trust, leadership, and training are all crucial to understanding in light of VTs.

According to Maznevski and Chudoba (2000), out of the 41 studies conducted on technology-supported distributed teams from 1990 to 1998 published in 11 major journals, only a small number of research works were conducted to understand how cultural boundaries affect the context in which the communication takes place and the communication process itself (e.g., Turoff, Hiltz, Bahgat, & Rana, 1993). Furthermore, for internationally distributed teams, only two studies were conducted to understand the role of trust in global teams that never met face to face (Jarvenpaa, Knoll, & Leidner, 1998; Jarvenpaa & Leidner, 1999). Research on multinational teams is far more limited than research on distributed teams, with most of it focusing on the effectiveness of team performance of a heterogeneous group and a homogenous group (Maznevski & Chudoba, 2000).

Teams are often viewed as an important means to enhance an organization's creative and problem-solving capabilities (Jarvenpaa, Ives, & Pearlson, 1996; Zachary, 1998). Maznevski and Chudoba (2000) define global virtual teams as groups that (a) are identified by their organization(s) and members as a team, (b) are responsible for making and/or implementing decisions important to the organization's global strategy, (c) use technology-supported communication substantially more than face-to-face communication, and (d) work and live in different countries. A virtual team is also defined as "a temporary, culturally diverse, geographically dispersed, electronically communicating work group" (Jarvenpaa & Leidner, 1999, p. 792). The notion of temporary in the definition describes team members that may have never worked together before and who may not have expected to work together again as a group (Jarvenpaa & Ives, 1994; Lipnack & Stamps, 1997). A virtual team is considered global when the members' backgrounds are culturally diverse and they are able to think and work with the diversity of the global environment (DeSanctis & Poole, 1997; Jackson et al., 1995). Finally, the team members use computer-mediated communication technology such as groupware that allows members to engage in collaborative work despite the separation of time and space.

ISSUES AND CHALLENGES FACED BY VIRTUAL TEAMS

There are some challenges and issues facing the VTs that we need to address. First of all, the emergence of VTs implies the extensive use of electronic forms of communication such as e-mail, videoconferencing, online discussion forums, the Internet, and so forth. The complexity in communicating over time, distance, and space causes the MNCs unique problems that are not easy to solve. Although distance and speed can be considered the most desirable advantages to VTs, there are other essential aspects that would create some problems and challenges such as the lack of expressive (nonverbal) behavioral cues as well as contextual cues (Sproull & Kiesler, 1986).

Practical experiences and research findings have shown that when VTs are not managed properly, they can be less effective than traditional teams. In addition, Warekentin, Sayeed, and Hightower (1997) reported on studies that have shown that teams that rely entirely on virtual communication by substituting face-to-face communication would resist using this form of communication. However, living in a global village, many organizations realize and take into consideration that VTs are their best resource of human assets. Townsend, Hendrickson, and DeMarie (2002) postulate that the reality of the virtual workplace accentuates the need for change in management, particularly when organizations need to understand some of the inherent challenges that people face at the transition from traditional teamwork to a virtual one. The following discussions pertain to the challenges and issues facing VTs (as illustrated in Figure 1).

Understanding Diverse Cultural Values: Organizational and National

It is essential to note that cultural issues are often overlooked by global managers simply because it is intricate and difficult to understand. Yet this issue is crucial if global managers need to fully understand, be aware, and be sensitive to the managerial outcomes and implications of working in a virtual environment. In addition, global managers also need to develop effective strategies and tactics on how to best overcome the culturally conflicting issues given

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