Chapter 5.24
Issues, Limitations, and Opportunities in Cross-Cultural Research on Collaborative Software in Information Systems

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ABSTRACT

Globalization has led to the increasing use of organizational teams comprising individuals with diverse cultural backgrounds. Existing research suggests that collaborative software may benefit multicultural teams. However, most prior studies are limited by their focus on U.S. and Western cultures. We explore this issue by comprehensively examining the literature on cultural effects on collaborative software use. This article makes several contributions by providing common nomenclatures and theoretical perspectives that are essential to promoting scientific progress in this area. It focuses mainly on empirical collaborative software studies in which culture is a key conceptual construct. We discuss underlying cultural theories, research methodologies, and findings of major collaborative software studies on the impact of culture. This article provides insights into various issues surrounding this line of research and highlights future research opportunities.

INTRODUCTION

Globalization has affected business by increasing the competitiveness of the marketplace, restructuring organizational boundaries, and creating

new challenges for managers who deal with multinational companies or international alliances. Businesses often use multicultural collaborative groups working in distributed environments to cope with uncertainty, change, ambiguous problem definitions, and rapidly changing information (e.g., Vick, 1998). Hence, a critical need exists for managers "to develop a new repertoire of skills and abilities to manage and/or work with people whose cultures and value systems can be significantly different from those at home" (Tung, 1995, p. 485).

Improving group processes and outcomes has been one of the most highly investigated research issues of the past two decades. The advance of information technologies makes it possible for distributed teams to be supported through collaborative technologies such as group support systems (GSS) and computer-mediated communication (CMC), which are collectively known as collaborative software (CSW). CSW refers to computer systems that combine communication and decision-support technologies to facilitate the formulation and execution of various group activities.

Culture is central to how people experience their world, make sense of concepts, express themselves, and make decisions. Information technology is not "culturally neutral and may come to symbolize a host of different values driven by underlying assumptions and their meaning, use, and consequences" (Leidner & Kayworth, 2006, p. 359). First, beliefs and values shared by the members of a group affect group behavior in a variety of ways that can either accelerate or retard the implementation of technological changes (Veiga, Floyd, & Dechant, 2001). For example, many management and organization practices developed in Western countries are viewed with suspicion and often fail when introduced into other cultures (Kim, Park, & Suzuki, 1990). Likewise, when group tasks involve cross-cultural teams, cultural conflicts can arise. Since CSW design

is typically based on Western cultural values, adopting CSW successfully in another culture may require both technical and social modifications (Watson, Ho, & Raman, 1994).

Second, the manner in which CSW may change group behavior is likely dependent on culture (Tan, Watson, Wei, Raman, & Kerola, 1993). Samarah, Paul, Mykytyn, and Seetharaman (2003) find that cultural diversity has a significant, positive moderating effect on group agreement and perceived decision quality when using CSW. To better understand how CSW can be successfully applied to a variety of cultures, researchers need to systematically compare the effects of CSW across different cultures (Tan, Watson, & Wei, 1995). Yet, only a small number of existing studies have empirically and theoretically examined cultural effects.

To advance this knowledge, we review and critique existing empirical research that specifically addresses cultural effects on CSW-supported group decision making. This article is different from recent literature reviews that focus on relationships between information technology and culture in general (Gallivan & Srite, 2005; Leidner & Kayworth, 2006). We attempt to focus primarily on empirical studies of multicultural, CSW-supported group work, which is critical for testing and validating propositions and hypotheses, and for developing theories about cultural influence in collaborative groups. We hope that our attempts at assimilation and analysis of existing studies will stimulate further research along this line.

The scarcity of literature in this area makes meta-analysis infeasible. For each specific research question/issue, there are usually only two to three studies. Most prior studies had very small sample size (effect sizes are typically small). Thus, our review and discussion are offered from a descriptive and critical perspective that aims to provide a roadmap for researchers. In addition, we focus only on empirical studies that include: (1) participants from different cultures, (2) the use

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