Chapter XXIV
Organizational Culture for Knowledge Management Systems:
A Study of Corporate Users

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ABSTRACT

Knowledge is increasingly being viewed as a critical component for organizations. It is largely people-based and the characteristics of groups of individuals, in the form of organizational cultures, may play a key role in the factors that lead to either the acceptance or rejection of knowledge management systems (KMS). The primary objective of this research is to explore how dimensions of organizational culture influence factors that lead to the acceptance of KMS. While researchers have agreed that culture plays an important role in KMS, the literature has only recently begun to examine organizational culture within this context. We examined the effects of three dimensions of organizational culture through a research model that was tested and analyzed utilizing a field survey of corporate knowledge management users. Our results indicated that both process-oriented and open communication system organizational cultures significantly influenced the factors that led to the acceptance of KMS.

INTRODUCTION

Organizational culture can either facilitate or be a major barrier to knowledge management system (KMS) acceptance (De Long & Fahey, 2000;

Grover & Davenport, 2001; Ruppel & Harrington, 2001). On February 1, 2003, the space shuttle Columbia was lost during its return to Earth. The Columbia Accident Investigation Board (CAIB) concluded that NASA's organizational culture as well as the piece of Columbia's foam insulation that fell off during launch shared equal blame for the tragedy (CAIB, 2003). According to the CAIB, the prevailing culture at NASA was of a mindset that accidents were inevitable, which led to the unnecessary acceptance of known and preventable risks. Although a KMS to assist with hazard identification and risk assessment was available at NASA (the Lessons Learned Information System), personnel only used that system on an *ad hoc* basis which limited its usefulness (CAIB, 2003). NASA's organizational culture consequently interfered with open communication, impeded the sharing of lessons learned, caused duplication and unnecessary expenditure of resources, and prompted resistance to external advice (CAIB, 2003).

The Columbia incident is an illustration of knowledge management system use failure. The acceptance of KMS, however, is a pressing issue in organizations (Kwan & Balasubramanian, 2003; Money & Turner, 2005). As knowledge is increasingly viewed as a critical activity for decision making (Markus, Majchrzak, & Gasser, 2002; Miranda & Saunders, 2003), organizations are becoming more receptive to using technologies to facilitate knowledge management (Schultze & Leidner, 2002). KMS are often employed to enhance organizational performance (De Long & Fahey, 2000) and are a reason why the KMS market has become one of the fastest growing areas in software development. While it is widely recognized that information technologies have the potential to facilitate knowledge management, the management of knowledge-based systems is an intricate process that involves a complex interplay of technical and social factors.

Recent studies have begun to investigate a variety of social factors and phenomena related to knowledge creation, sharing, and transfer. For example, Wasko and Faraj (2005) studied how individual motivations and social capital influence knowledge sharing in KMS. Ko, Kirsch, and King (2005) found that individual communication capabilities, motivations, and interpersonal relationships affected the transfer of complex enterprise software knowledge. Bock, Zmud, Kim, and Lee (2005) found that subjective norms and organizational climate had a significant impact on people's intention to share knowledge. Kankanhalli, Tan, and Wei (2005) similarly discovered that several social factors, including prosharing norms, influenced knowledge contribution. These studies provided strong empirical evidence of the social influences in knowledge management. Some of the factors that have been examined are conceptually similar to organizational culture dimensions that have been identified in the management literature. A more systematic study of organizational culture on KMS acceptance would provide theoretical congruence to this recent literature.

The primary objective of this research is to explore how dimensions of organizational culture influence the factors that lead to the acceptance of KMS (e.g., perceived usefulness, perceived ease-of-use, perceived behavioral control, subjective norms). In our investigation, organizational culture is postulated as a distal determinant for an employee's intention to use a KMS. In the next section, we present a literature review to support our hypotheses, followed by a discussion of our research methodology. We then empirically test our hypotheses with a field survey of corporate KMS users, discuss the results, and finish with some concluding remarks.

LITERATURE REVIEW

Knowledge Management Systems

Knowledge is information that exists in the mind of individuals (Alavi & Leidner, 2001; Berman-

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