Chapter 6.17
Knowledge Management and Organizational Performance in the Egyptian Software Firms

Ahmed Seleim
Alexandria University, Egypt

Omar Khalil
Kuwait University, Kuwait

ABSTRACT

Management research has often overlooked the role of knowledge and knowledge management (KM) in the analysis of organizations and their performance. Also, the literature on KM is short of empirical evidence on the likely interrelatedness of the KM processes. This investigation adopted a research model and used data from 38 Egyptian software firms to examine: (1) the relationship of the KM processes of knowledge acquisition, documentation, transfer, creation, and application to organizational performance, and (2) a number of relationships within the KM processes themselves. The results suggest that knowledge application influences organizational performance, knowledge acquisition and knowledge creation influence knowledge application, and knowledge acquisition and knowledge transfer influence knowledge creation. Although they provide a limited support to the research mode, the results signify the value of continued examination and enhancement of such a model.

INTRODUCTION

Knowledge is an asset that needs to be effectively managed (Davenport & Prusak, 1998; Drucker, 1993). Interest in knowledge management (KM) has grown dramatically in the recent years, as more researchers and practitioners have become aware of the knowledge potential to drive innovation and improve performance (e.g., Cavaleri, 2004; Machlup, 1962, 1983; Penrose, 1959). For an organization to remain competitive, it must effectively practice the activities of creating, acquiring, documenting, transferring, and applying

knowledge in solving problems and exploiting opportunities (e.g., Sambamurthy & Subramani, 2005; Zack, 1999).

Argote and Ingram (2000) argue what the organization comes to know explains its performance. The ultimate test of any business concept, such as KM, is whether it improves business performance. If organizations cannot use knowledge to improve performance, knowledge does not have measurable value (Gorelick & Tantawy-Monsou, 2005). However, management research has often overlooked the role of knowledge and KM in the analysis of organizations and their performance (Nonaka, 1994; Spender, 1996). Most of KM research consists of either theoretical analyses of KM issues or case-based reviews of organizations' KM practices. Consequently, KM research is short of offering an unambiguous understanding of the role of KM in improving organizational performance (Kalling, 2003).

On the other hand, effective KM entails an understanding of the interrelationships that may exist among KM processes such as knowledge acquisition, knowledge creation, knowledge documentation, knowledge transfer, and knowledge application (e.g., Lee, Lee & Kang, 2005; Seleim, Ashour & Khalil, 2005a). These processes are not necessarily sequential but rather iterative and overlapping (Holsapple & Joshi, 1999, p. 7-1; Lee & Choi, 2003). Furthermore, an analysis for the purpose of understanding the relationship of the KM processes to organizational performance is incomplete if it does not also include the analysis of the interrelationships among the KM dimensions themselves. In other words, effective KM requires an understanding of the direct and indirect influence of KM processes on organizational performance.

Thus far, the literature on KM is short of a cohesive theoretical framework that provides a structure that can be used to understand how to enhance KM within an organization as well as to assess the potential impact of KM efforts on organizational effectiveness (Hoffman, Hoelscher & Sherif, 2005). This research proposes and tests a model to explore the interrelationships among the KM processes as well as the relationship of the KM processes to organizational performance in the Egyptian software industry. The exploration of the possible interrelationships among the KM processes is believed to be an extension to the absorptive capacity theory (Cohen & Levinthal, 1990), which attends to the organizational processes and activities by which organizations acquire, absorb, transfer, and exploit organizational knowledge, and the SECI— socialization, externalization, combination, and internalization—model of knowledge creation (Nonaka & Takeuchi, 1995).

The article is organized accordingly. A background on KM is presented first, followed by the research method, research results, implications, and conclusions.

BACKGROUND

KM Processes

KM is a natural function in human organizations. Gorelick and Tantawy-Monsou (2005) view KM as a system or framework that integrates people, processes and technology to achieve sustainable results by increasing performance through learning. Therefore, effective KM requires viewing knowledge as a process rather than a resource (e.g., Alavi & Leidner, 2001; Davenport & Prusak, 1998; Lee & Choi, 2003; Spender, 1996).

Researchers have adopted different views of what the KM process entails. Johnston and Blumentritt (1998), for example, define the KM process to comprise knowledge identification, acquisition, generation, validation, capture, diffusion, embodiment, realization, and use. Zack (1999) asserts that KM includes the acquisition, refinement, storage, retrieval, distribution, and presentation of knowledge. Bennett and Gabriel (1999) view KM as a process that involves the cap-

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