Knowledge Acquisition and Transfer in Egyptian Software Firms

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ABSTRACT

This investigation explored knowledge acquisition and transfer practice in the Egyptian software firms. It used a combination of a cross-sectional field survey of 38 firms and an in-depth qualitative analysis of 14 firms. Although most of the firms in the sample recognized the importance of knowledge, their idiosyncrasies appeared to affect the way knowledge is acquired and transferred. The firms were found to have a limited use of their software developers’ initiatives, R&D, and the academic and research institutions as sources for knowledge acquisition. They were also found to have limited capabilities in transferring and sharing knowledge. The Egyptian culture is rich in the social and emotional capital, which can play an important role in building relationships, facilitating the exchange of knowledge, and sharing of experience. Egyptian software firms should develop and implement KM strategies that attract expert software developers, capitalize on trust and social relationships, and build IT-based KM systems in order to enable knowledge acquisition and transfer.

Keywords: Egypt; knowledge acquisition; knowledge management (KM); knowledge transfer; software industry

INTRODUCTION

Organizational knowledge accumulates over time and enables firms to attain deeper levels of understanding of their business. Knowledge is a critical factor that can be used to explain the growth of a firm, which is viewed as a repository of knowledge and experience (Penrose, 1959). Knowledge production is an economic activity (Machlup, 1962, 1983), and knowledge importance is on the rise in the post-capitalist society (Drucker, 1993). Consequently, knowledge management (KM) has become one of the major challenges facing today’s organizations.

In spite of the varying views of KM in the literature, knowledge acquisition,
knowledge documentation, knowledge transfer, and knowledge application are believed to be four interdependent basic dimensions of the KM process. KM is a cross-functional, multi-faceted phenomenon (Bontis & Fitz-enz, 2002; Lee & Choi, 2003), and a considerable variation in KM literature and KM processes and practices exists. Effective KM requires approaching organizational knowledge as a process rather than a resource (Alavi & Leidner, 2001; Alavi & Tiwano, 2002; Davenport & Prusak, 1998; Lee & Choi, 2003; Spender, 1996; Wiig, 2000).

The coordination of KM dimensions in organizations is critical, since the shortage of any dimension may result in less than optimum outcomes of KM processes and systems (Bhatt, 2001; Darroch, 2003). KM success models such as those of Bots and de Bruijn (2002), Massy et al. (2002), Lindsey (2002), Maier (2002), and Jennex and Olfman (2005) suggest that effective KM processes (e.g., acquisition, documentation, transfer, and application) is essential to the successful development and implementation of knowledge management systems (KMS) and to the adoption of KM strategies. Improving KM processes, in turn, necessitates understanding how organizations practice and manage such processes.

On the other hand, most of the earlier research on KM, especially in software firms, is case-based (Carter, 2000; Dingsoyr & Conradi, 2003; Hellstrom et al., 2001; Kautz et al., 2002) and nearly limited only to developed countries. Given the inadequate external validity of the findings of such research, empirical cross-sectional investigations of KM practices in developed and developing countries are wanted. In addition, Mathiassen and Pourkomeylian (2003) assert that it is far from clear how knowledge-intensive organizations such as software firms practically can take advantage of KM insights.

The objective of this study is to understand how knowledge acquisition and transfer are practiced in a number of relatively young and small Egyptian software firms. These two KM dimensions are selected for investigation, because software firms may not sustain competitive advantages without constantly learning from experience and developing and transferring new knowledge (Brown & Woodland, 1999; Garvin, 1993).

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

BACKGROUND

Knowledge Types

Since knowledge is too complex and vague of a term to be defined precisely, Davenport and Prusak (1998) propose only a working definition. They view knowledge as a “…fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information” (p. 5). They add that individual knowledge is generated and applied in the minds of people; and organizational knowledge generally is embedded in the organizational documents, repositories, routines, processes, practices, and norms.

Knowledge takes different forms and types. Perhaps the most familiar distinction in the KM domain is between explicit and tacit knowledge (Nonaka, 1991). While tacit knowledge is personal and remains in the human mind, the behavior, and perception (Karhu, 2002; Nonaka, 1991; Sveiby, 1997), explicit knowledge easily can be for-
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