Chapter XVII

Knowledge Acquisition and Transfer in Developing Countries: The Experience of the Egyptian Software Industry

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Abstract

This investigation explored knowledge acquisition and transfer practice in 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 recognize the importance of knowledge, their idiosyncrasies appear 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 also were found to have limited capabilities in transferring and sharing knowledge. The Egyptian culture is rich in social and emotional capital, which can play an important role in building relationships, facilitating the exchange of knowledge, and sharing
experience. The 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.

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, multifaceted 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 Olmman (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 the adoption of KM strategies. Improving KM processes, in turn, necessitates understanding how organizations practice and manage such processes.

On the other hand, KM is a relatively new research area (Zhang & Zhao, 2006), and most of the earlier research on KM, especially in software firms, is case-based (Carter, 2000; Dingsoyr & Conradi, 2003; Hellstrom, Malmquist, & Mikaelsson, 2001; Kautz, Thaysen, & Vendelo, 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 can practically 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 software firms from Egypt, which is viewed as a developing country. 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).
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