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Key Elements in an Effective Knowledge Management System: A Case Study Approach

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Extended Abstract

Increasingly knowledge is acknowledged to be the most important resource in organisations. There is evidence in the literature that suggests that as organisations use knowledge effectively in their day-to-day operations they become more successful and therefore more valuable than their competitors who do not.

Knowledge management is important for several reasons. First, knowledge management literature argues that knowledge has become a significant competitive tool (Rowley, 1999). Many acknowledge that in today's knowledge-based economy, knowledge, rather than capital and labour, is the "only meaningful economic resource" (Drucker, 1993, Webber, 1993) or "their most valuable and strategic resource" (Zack, 1999). Second, managing knowledge is significantly different from managing other organisational assets. Stewart et al. (2000) argue that knowledge assets are different to physical assets with respect to three characteristics, namely, life, scope, and maintainability (Stewart et al., 2000). It follows that traditional physical asset management know-how may not be readily transferred to knowledge management. In addition, Sunassee & Sewry (2002) argue that the collective knowledge of an organisation's employees is a critical resource to an organisation and managers need to know how to manage it. Third, knowledge management is important because today's business environment is highly competitive. With an ever-changing customer needs and technology, organisations need to have the appropriate information and knowledge at the right time if they are going to make proper decision in a timely fashion (Sunassee and Sewry, 2002). However a review of knowledge management literature suggests that there are a number of issues where research is still at its infancy and which require further investigation. Some of these issues are highlighted in this section. Thus the aim of this paper is to identify the gaps in the literature and provide an agenda for further research.

To begin, knowledge can be defined as 'a symbolic representation built into basic primitives that can be manipulated by rules' and is based on the meaning of *data* and *information* (Spiegler, 2000). Information that is acted

upon and results in decisions and actions which add value to the organisation is knowledge (Kanter, 1999, Spiegler, 2000). The difference between information and knowledge is the same as the difference between *knowing-that* and *knowing-how* (Ryle, 1949). Taking one step further, knowledge management is a systematic process with the purpose of acquiring, organising, both tacit and implicit knowledge (Alavi and Leidner, 1999) to enable other employees to use the collected information in order to be more effective and productive (Alavi and Leidner, 1999). Thus, knowledge management is essentially creation and sharing of organisational knowledge, which is very important because it may determine an organisation's ability to establish and sustain competitive advantage (Grant, 1996).

In order for knowledge management to be efficient automated systems may be required. A knowledge management systems facilitates collecting, codifying, integrating and disseminating knowledge in an organisation (Alavi and Leidner, 1999). The main feature of knowledge management systems is that they can improve the capability of organisations to be more flexible and responsive to changing market conditions. In their survey of 109 respondents in several organisations in 12 countries around the world, Alavi & Leidner (1999) found that an "integrated and integrative technology architecture is a key driver for KMS [knowledge management system]" (p. 22). Specifically, this technology architecture consists of database and database management, communication and messaging, and browsing and retrieval (Alavi and Leidner, 1999). According to Alavi & Leidner (1999) the knowledge management systems are perceived to have a deep impact on organisational processes in terms of enhanced communication, and process efficiency leading to overall enhanced financial and marketing outcomes.

Knowledge management literature highlights that there are several important factors that need to be considered when knowledge management strategies are designed to ensure that knowledge flows effectively and efficiently within the organisation in order to carry out its vision and goals. First, knowledge management strategies should be consistent with the overall organisation business strategy if it is going to provide an organisation with a competitive edge (King, 2001.). Second, people and their contribution are seen as an important component in the knowledge management initiatives of an organisation (Bhatt, 2000). Specifically, top-

management support and employee commitment are key factors. Third, technology also plays an important role because it provides the means and the infrastructure necessary to accomplish knowledge management outcomes.

There appears to be agreement in literature suggesting that knowledge management initiatives should be people-rather than technology-centric (Vandenbosch and Ginzberg, 1997). This is because while technology can at the very best help convert data into information, only people can ascribe 'meaning' to that information turning it into knowledge. On the other hand, technology enables more effective knowledge management (Alavi and Leidner, 1999). In addition, different people in an organisation are likely to deduce different meanings from information. Therefore, over-emphasizing either people or technology or both may not be sufficient for knowledge management strategies to be successful. The interaction between people, technologies and the techniques people apply in exploiting these technologies may be one of the critical success factors of knowledge management strategies (Bhatt, 2001). The success of this interaction depends on organisational culture (Srinivasan, 2004) and will integrate different realities into a unique body of knowledge in the organisation allowing the organisation to act with a "collective mind" (Weick and Roberts, 1993).

However a review of knowledge management literature suggests that there are a number of issues where research is still at its infancy and which require further investigation. Some of these issues are highlighted in this section.

First, how can knowledge management effectiveness and benefits be measured. This is important because without effective measures it is difficult to conduct cost-benefit analyses and consequently determine the effectiveness of knowledge management investments. Yet, measuring knowledge management benefits can be a difficult task because often knowledge management outcomes are social and only impact organisational profits indirectly (de Gooijer, 2000). Second, given the importance of knowledge management and the need to cultivate a related culture,

organisations need to 'move beyond knowledge pull into knowledge push' (Ezingeard et al., 2000). This suggests that individual knowledge needs and knowledge profiling are important if individuals are to accept the new knowledge management culture (Ezingeard et al., 2000). Third, given that many organisations (e.g. Ernst & Young, etc.) are global, the pressing issue is how such organisations can globalise their knowledge management initiatives in order to gain competitive advantage. Further research is needed in these areas (Eriksson et al., 2000).

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