Chapter 2.15

Using Soft Systems Methodology to Reveal Socio-Technical Barriers to Knowledge Sharing and Management:
A Case Study from the UK National Health Service

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ABSTRACT

Nonaka (1998) argued that for companies to prosper they must move away from a view of organizations as information processing entities with a focus on formal and systematic knowledge to exploit tacit knowledge. Much of the subsequent literature relates to commercial companies, often in North America. Public services in the UK are undergoing rapid change to improve cost effectiveness, customer focus and improve outcomes.

Reports such as Wanless (2002, 2004, 2007), Protti (2002) and Gray (2007) argue that this requires a more intelligent use of knowledge and information. However, authors such as Avison and Wood Harper, (1990) have long argued that systems to support such information-based innovations are context dependent and should be viewed as socio-technical systems rather than simply technological systems. This study uses Checkland's Soft systems Methodology (SSM) to consider the local factors operating within a case study from a local NHS health informatics service organization to assess

the need to take account of local factors when applying knowledge management techniques in such cases, with a particular focus on managing the tacit knowledge components, highlighted by Nonaka.

INTRODUCTION

Nonaka (1998) argued that for companies to prosper they must move away from a view of organizations as information processing entities with a focus on formal and systematic knowledge to exploit tacit knowledge. He argues that this view is deeply ingrained citing Taylor's principles of scientific management (1911) as the source. Taylor's premise that "the remedy for this inefficiency lies in systematic management, rather than searching for some unusual or extraordinary man" is still seen today in the emphasis on formal and systematic knowledge. For example, Keskin (2005) reports that organizations starting out in KM tend to initially concentrate on developing a strategy which is oriented towards explicit knowledge. On the other hand, writers such as Galliers and Newell (2003) define knowledge as something which is uniquely human. It labels the storage, generation and distribution activities of the computer as "information management", while reserving the "knowledge management" term for activities performed by humans, based upon the principle that information becomes knowledge only when it is processed by a human mind.

This study uses a case study focused upon IT help desks. These environments, perhaps because of the technical background of many of their staff and managers, tend to emphasize the role of technology in knowledge management and focus upon explicit knowledge that can be codified and structured in the Taylorian tradition.

Focusing on technology as the core of KM can lead to inadequate attention being paid to the human elements of KM including, culture, creativity, innovation, social networks etc. Reli-

ance on a "technology push" (Damodaran and Olphert 2000) is not sufficient to achieve the organizational culture and context which will promote organizational learning. Cabrera, Collins and Salgado (2006) argue that technology alone cannot ensure that knowledge will be volunteered and shared and Kiluge et al (2001) suggested that those organizations most likely to fail at KM are those that implement technology-based solutions, and wait.

Holsapple (2005) argues that the exclusive and the identification perspective have "blind spots" (that obscure a clear vision of the relationship between technology and knowledge management. There is a more balanced, alternative "inclusive" perspective, which doesn't equate knowledge with information, or conversely, create a boundary between them. This perspective recognizes that modern KM has been enriched by advances in technology, for example, decision support technology, research support systems and communities of interest/practice. From this perspective a KM system is a socio-technical system which has as its objective the management and sharing of knowledge to support the achievement of organizational goals, recognizing the importance of human and cultural aspects of KM and the enabling role of technology.

This view is supported by Jennex et al (2008) Jennex and Olfman (2006) and Jennex and Olfman, (2005) who argue that "KM success is a multidimensional concept. It is defined by capturing the right knowledge, getting the right knowledge to the right user, and using this knowledge to improve organizational and/or individual performance. KM success is measured by means of the dimensions: impact on business processes, strategy, leadership, the efficiency and effectiveness of KM processes, the efficiency and effectiveness of the KM system, organizational culture, and knowledge content." and that "culture is a CSF but not an output of KM success."

This increasing emphasis upon culture as a critical success factor for KM, leads the authors

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