Chapter III

A Framework to Study Knowledge Transfer During Information Systems Development (ISD) Process

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ABSTRACT

The information systems development process (ISD) remains a topic of great interest for IS researchers, especially due to the increase in the number of ISD failures. The IS researchers suggest that one possible cause for the failure of ISD may be the lack of relevant knowledge transferred from the system users to system developers. However, IS researchers have not yet directed their attention toward examining the factors that impede the transfer of knowledge among the system users and developers. In order to understand the impediments...
to the knowledge transfer process during ISD, it is crucial to systematically study how the nature of knowledge transfer unfolds during this process. This chapter provides a framework that allows researchers to study this phenomenon in a systematic fashion. Specifically, it identifies a comprehensive set of factors that influence the knowledge transfer process and posits a set of propositions that future research should examine.

**INTRODUCTION**

It is widely recognized that knowledge is one of the salient features of the emerging economy. Nonaka (1994, p. 14) suggests that, “It is widely observed that the society we live in has been gradually turning into a ‘knowledge society’.” Pan and Scarborough (1999, p. 55) argue that knowledge is the most important resource that “contributes to the competitive advantage of an organization.” Hiebeler (1996, p. 22) argue that only those organizations that can develop best practices for managing knowledge will have a competitive advantage. Given the current focus of organizations and the nature of the competition, knowledge management (KM) is thus seen as one of the most important activities of an organization.

Knowledge management (KM) is not one specific activity, but a collection of multiple sub-activities referred to as *knowledge activities*. KM can be defined as the application of these *knowledge activities* on knowledge resources that are constrained and facilitated by a wide range of factors. The knowledge activities identified and characterized by KM researchers include: knowledge acquisition, knowledge selection, knowledge generation, knowledge use, knowledge internalization, and knowledge transfer (Holsapple, Joshi, 2002). The focus of this framework is specifically on the aspect of *knowledge transfer*.

The transfer of knowledge, i.e., to get the “right” knowledge to the “right” participant at the “right” time in the “right” form and at the “right” cost, is one of the greatest challenges of knowledge management. Greengard (1998) argues that the sharing of knowledge is one of the most important activities of knowledge management. A similar sentiment has also been expressed by Puccinelli (1998), who suggests that in order to reap benefits from knowledge management, it is important to consider the concept of knowledge sharing. Szulanski (1996) argues that knowledge transfer is extremely important especially in the current information age. Alavi (2000) suggests that one of the biggest reasons for focusing on knowledge transfer is that knowledge generation by itself cannot lead to superior performance for the organization. Rather, companies have to create value by using that knowledge, and knowledge can only be utilized if it is transferred successfully.

The knowledge transfer literature suggests that it is an extremely complex process and often witnesses tremendous difficulties (von Hippel, 1994; Zander, Kogut, 1995; Szulanski, 1996, 2000; Bresman, Birkinshaw, Nobel, 1999; Simonin, 1999). However, these studies examined the transfer of best practices among
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