

## Chapter 5.2

# The Knowledge Transfer Process: From Field Studies to Technology Development

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### **ABSTRACT**

Knowledge transfer in an organization is the process through which one unit (e.g., group, department, or division) is affected by the experience of another. Yet, experience has shown that transferring knowledge, whether at the individual, group, product line, department, or division level, is usually a laborious, time-consuming, and difficult task. In this article, we review 20 recent empirical studies on knowledge transfer and suggest a four-stage process model to summarize and organize their findings. This resulted in a framework where determinants for success at each stage of the knowledge transfer process are defined. Based on this knowledge transfer framework, we propose a knowledge transfer management system that

integrates current knowledge management tools and technologies to support the needs at different stages of the knowledge transfer process.

### **INTRODUCTION**

Knowledge transfer in an organization is the process through which one unit (e.g., group, department, or division) is affected by the experience of another (Argote, 1999). For example, in the pizza-delivery business, a franchise may learn the pizza production process from another franchise in order to reduce its production costs. Yet, experience has shown that transferring knowledge, whether at the individual, group, product line, department, or division level, is usually a laborious, time-consuming, and difficult task.

Although various knowledge management tools and technologies have been developed and applied to support knowledge transfers, their success often has been questioned. On the other hand, researchers from various disciplines, including knowledge management, organization science, and strategic management, already have applied various theories to investigate the determinants of successful knowledge transfer, with or without knowledge management technology. We believe that the development of knowledge management systems has much to gain from their insights.

In this article, we review 20 recent empirical studies on knowledge transfer and suggest a four-stage process model to summarize and organize their findings. This resulted in a framework where determinants for success at each stage of the knowledge transfer process are defined. Based on this knowledge transfer framework, we propose a knowledge transfer management system that integrates current knowledge management tools and technologies to support the needs at different stages of the knowledge transfer process.

The organization of the article is as follows. First, we describe our proposed process model for knowledge transfer. Next, we describe our sample of 20 empirical studies on knowledge transfer. This is followed by an analysis of the constructs investigated in these empirical studies, resulting in a set of determinants, which we then mapped into our process model, producing a knowledge transfer framework. Then, a preliminary design of a knowledge transfer management system is described. We conclude with a summary of our findings and directions for future research.

## **KNOWLEDGE TRANSFER AS A PROCESS**

Knowledge transfer has been treated by most researchers as a black box. A process view that emphasizes the sequence of events will provide insights on the nature of the inner workings of

knowledge transfer. However, few researchers have explicitly suggested a process model for the knowledge transfer. Hansen (1999) proposed a model with two stages: Search and Transfer. Szulanski (1996, 2000) put forward a model with four stages: Initiation, Implementation, Ramp-up and Integration. Building on their work, we developed a four-stage model to organize and integrate prior research in knowledge transfer (see Figure 1). Our model differs from the models of Hansen (1999) and Szulanski (1996, 2000) in the following ways:

1. Our model splits the Initiation stage into Motivation and Matching stages, which have significantly different determinants and driving forces. The Matching stage largely overlaps with the Search stage in Hansen (1999).
2. Our model combines the Implementation and Ramp-up stages into a single Implementation stage, as the two former stages are highly iterative and practically inseparable in practice. The determinants of the two former stages are also very similar.
3. Our model labels the last stage Retention in order to explain the phenomenon of knowledge depreciation (Argote, 1999) and to reflect the importance of achieving sustainable organizational performance through knowledge transfer.
4. Our model allows for the iterations between stages that more closely describe the knowledge transfer process in practice.

In the following paragraphs, the theoretical foundation, process description, and criteria for completion of each stage are discussed.

### **Motivation**

This stage comprises all the events that lead to the attempt to initiate a knowledge transfer. It begins with the identification of a gap between

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