Chapter V
A Model of Knowledge Management Success

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ABSTRACT

This article describes a knowledge management (KM) success model that is derived from observations generated through a longitudinal study of KM in an engineering organization and KM success factors found in the literature, which were modified by the application of these observations and success factors in various projects. The DeLone and McLean (1992, 2003) IS Success Model was used as a framework for the model, since it was found to fit the observed success criteria and provided an accepted theoretical basis for the proposed model.

INTRODUCTION

Knowledge management (KM) and knowledge management system (KMS) success is an issue that needs to be explored. The Knowledge Man- agement Foundations workshop held at the Hawaii International Conference on System Sciences in January 2006 discussed this issue and reached agreement that it is important for the credibility of the KM discipline that we be able to define KM success. Also, Turban and Aronson (2001) list three reasons for measuring the success of KM and KMS:

- To provide a basis for company valuation
- To stimulate management to focus on what is important
- To justify investments in KM activities.

All are good reasons from an organizational perspective. Additionally, from the perspective of KM academics and practitioners, identifying the factors, constructs, and variables that define KM success is crucial to understanding how these initiatives and systems should be designed and implemented. It is the purpose of this article

to present a model that specifies and describes the antecedents of KM and KMS success so that researchers and practitioners can predict if a specific KM and KMS initiative will be successful. The article assumes that KM and KMS success cannot be separated, which is based on a broad, Churchman view of what constitutes KMS and a definition of success that is not reliant solely on technical effectiveness. The other basic assumption for this article is that success and effectiveness, as used in the KM literature, are synonymous terms. The remainder of the article uses the term *KM* to refer to KM and KMS and the term *success* to refer to success and effectiveness. The reasoning for these assumptions is discussed later in the article.

The proposed KM Success Model is an explication of the widely accepted DeLone and McLean (1992, 2003) IS Success Model, which was used since it was able to be modified to fit the observations and data collected in a longitudinal study of Organizational Memory, OM, and KM. It fit success factors found in the KM literature, and the resulting KM Success Model was useful in predicting success when applied to the design and implementation of a KM initiative and/or a KMS. Additionally, the stated purpose of the DeLone and McLean (1992, 2003) IS Success Model is to be a generalized framework that describes success dimensions for which researchers can adapt and define specific contexts of success (DeLone & McLean, 2003). Before presenting the KM Success Model, we will discuss the concepts of knowledge, KM, KMS, and KM/KMS success. We then will discuss briefly the DeLone and McLean (1992, 2003) IS Success Model, present the KM Success Model, and discuss the differences. We will conclude by summarizing studies that support the KM Success Model and will present operationalizations that can be used to evaluate the constructs used to define the KM Success Model dimensions.

KNOWLEDGE, OM, AND KM

Alavi and Leidner (2001) summarize and extend the significant literature relating to knowledge, knowledge management, and knowledge management systems. They view organizational knowledge and OM as synonymous labels, as do Jennex and Olfman (2002). This is useful, as it allows for the combination of research results from OM and KM. It is also born out in the literature. Huber, Davenport, and King (1998) summarize OM as the set of repositories of information and knowledge that the organization has acquired and retains. Stein and Zwass (1995) define OM as the means by which knowledge from the past is brought to bear on present activities, resulting in higher or lower levels of organizational effectiveness, and Walsh and Ungson (1991) define OM as stored information from an organization's history that can be brought to bear on present decisions.

Davenport and Prusak (1998) define knowledge as an evolving mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. Knowledge often becomes embedded in documents or repositories and in organizational routines, processes, practices, and norms. Knowledge is also about meaning in the sense that it is context-specific (Huber et al., 1998). Jennex (2006) extends the concepts of context also to include associated culture that provides frameworks for understanding and using knowledge. Ultimately, we conclude that knowledge contains information, but information is not necessarily knowledge. Also, we conclude that OM contains knowledge. However, for the sake of simplicity, we will use the term *knowledge* to refer to OM and knowledge throughout this article.

Various knowledge taxonomies exist. Alavi and Leidner (2001) and Jennex and Croasdell (2005) found that the most commonly used tax-

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