Chapter 6.28
Assessing Knowledge Management Success

Murray E. Jennex
San Diego State University, USA

Lorne Olfman
Claremont Graduate University, USA

ABSTRACT

This article proposes a framework for assessing knowledge management system (KMS) success models. The framework uses three criteria: how well the model fits actual KMS success factors, the degree to which the model has a theoretical foundation, and if the model can be used for both types of KMSs. The framework is then applied to four KMS success models found in the literature and is determined to be a useful framework for assessing KMS success models.

INTRODUCTION

Knowledge management systems (KMSs) are systems designed to manage organizational knowledge. Alavi and Leidner (2001) clarify KMSs as IT-based systems developed to support/enhance the processes of knowledge creation, storage/retrieval, transfer, and application. Additionally a KMS supports knowledge management through the creation of network-based organizational memory (OM), and support for virtual project teams and organizations and communities of practice. A final goal of a KMS is to support knowledge/OM creation.

There are several taxonomies of KMSs from Zack's (1999) integrative and interactive KMS to KMS classified according to knowledge lifecycle (Alavi & Leidner, 2001), KM spectrum (Hahn & Subramani, 2000), KM architecture (Borghoff & Pareschi, 1998), and so forth. However, this article classifies KMS by the context captured and the users targeted, resulting in two approaches

to building a KMS—the process/task approach and the infrastructure/generic approach. The process/task approach focuses on the use of knowledge/OM by participants in a process, task, or project in order to improve the effectiveness of that process, task, or project. This approach identifies the information and knowledge needs of the process, where they are located, and who needs them. This approach requires the KMS to capture minimal context because users are assumed to understand the milieu of the knowledge that is captured and used.

The infrastructure/generic approach focuses on building a system to capture and distribute knowledge/OM for use throughout the organization. Concern is with capturing context to explain the captured knowledge and the technical details needed to provide good mnemonic functions associated with the identification, retrieval, and use of knowledge/OM. The approach focuses on network capacity, database structure and organization, and knowledge/information classification.

Both approaches may be used to create a complete KMS. The process/task approach supports specific work activities, while the infrastructure/generic approach integrates organizational knowledge into a single system that can be leveraged over the total organization instead of just a process or project. Morrison and Weiser (1996) support the dual approach concept by suggesting that an organization-wide KMS be designed to combine an organization's various task/process-based KMSs into a single environment and integrated system.

Once a KMS is implemented, whichever type it is, its success or effectiveness needs to be determined. Turban and Aronson (2001) list three reasons for measuring the success of a knowledge management system:

- 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, the measurement of KMS effectiveness or success is crucial to understanding how these systems should be built and implemented.

To meet this need, several KMS success/effectiveness models have been proposed. It is the purpose of this article to propose a framework for assessing the usefulness of these models. To do this the article describes an evaluation model based on comparing the KMS success model to KMS success factors, determining the degree to which the model has a theoretical foundation, and determining if the model can be applied to both approaches to building a KMS.

The article will first define the assessment framework. Then four KM/KMS success/effectiveness models will be described, followed by an analysis with respect to how well the models match the assessment framework and a conclusion on the usefulness of the framework. KM/KMS success/effectiveness will not be defined, because we found that each model defines success/effectiveness as part of the model.

METHODOLOGY

The proposed assessment framework consists of three main questions: how well the KMS success model meets KM/KMS success criteria, the degree of the model's theoretical foundation, and if it can be applied to both approaches to building a KMS. Stinchcombe (1968) suggests testing theories by determining how well they reflect observed data and that the more observations that can be compared, the better. The proposed framework does this by comparing the KMS success models to a set of KMS success criteria. The set of KMS success criteria was determined through a literature survey. Several studies were found that reported issues affecting the success of a KMS. The studies used in this article utilize