

## Chapter 2.5

# Exploring the Factors Influencing End Users' Acceptance of Knowledge Management Systems: Development of a Research Model of Adoption and Continued Use

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### ABSTRACT

This article develops a model of adoption and continued use of knowledge management systems (KMSs), which is primarily built on Rogers' (1995) innovation stages model along with two very important social psychology theories—Ajzen and Fishbein's (1980) theory of reasoned action (TRA) and Davis's (1986) technology acceptance model (TAM). It presents various factors and variables in detail. Hypotheses are developed which can be tested via empirical study. The proposed model has both theoretical and practical implications. It can

be adapted for application in various organizations in national and international arena.

### INTRODUCTION

While the publicity related to organizational learning, intellectual capital, and KM may pass, the need to effectively and systematically manage the knowledge will not diminish. Knowledge is more and more recognized as a key organizational asset for sustaining organizational competitiveness in the market place (Huber, 2001). At present,

applying computer-aided knowledge management systems and the aggressive acquisition and retention of knowledge workers are two of the major KM activities (Huber, 2001). A KMS is the infrastructure necessary for the organization to implement its KM processes (Sarvary, 1999) and can be viewed as a "knowledge platform" (Zack, 1999). The objective of the KMS is to support the construction, sharing, and utilization of knowledge in organizations (Alavi & Leidner, 1999).

KMSs have appeared in various formats in different industries. Indeed, there is no single model for a KMS. There is no single role of IT in KM just as there is no single technology comprising KMSs (Thierauf, 1999). Some of the common applications of KMSs are: (1) organizing and sharing/transferring of internal benchmarks/best practices, (2) constructing corporate knowledge directories, such as corporate yellow pages, people information archive, and (3) creating knowledge networks and knowledge maps; among many others (Alavi & Leidner, 2001).

In the past, many ISs, such as management ISs, executive ISs, decision support systems, knowledge-based systems, and so forth focused on codified/explicit knowledge. KMSs provided the opportunity to extend the operating scope of ISs through facilitating the organization's effort in managing both tacit and explicit knowledge (Alavi & Leidner, 2001). Compared to previous systems, such as document management systems, a KMS can provide better help in avoiding the duplication of research effort and assist in a systematic way of capturing people's knowledge and experience (Philips Fox, 1998).

According to Alavi and Leidner (2001) and Junnarkar and Brown (1997), KMSs can play important roles in managing an organization's knowledge. Firstly, KMSs can help connect people to people to share their tacit knowledge and experience without face-to-face meetings. Secondly, KMSs can help make people's tacit knowledge available to others through tools such as groupware, e-mail systems, and online dis-

cussion forums, among many others. Thirdly, KMSs can help organize codified knowledge more efficiently through tools such as knowledge repositories and portals, databases, electronic bulletin boards, and intranets. Finally, KMSs can help increase people's own (tacit) knowledge base through learning knowledge in the organization's (codified) knowledge base by applying tools such as data mining and learning tools.

Chait (1999) suggests that KMSs include the key elements of organizations' knowledge capital in many ways, such as information about staff, which improves organizations' ability to identify people with the necessary skills and knowledge; information about customers and clients, which helps organizations to support and serve them better; information about methodologies and tools, which allows organizations to deliver quality and consistent service efficiently and effectively; and information about practices and groups, which keeps everyone in organizations up to date at any time and place. McDermott (1999) emphasizes that the great trap in KM is using tools and concepts of information management to design KMSs. He argues that knowledge sharing requires different concepts and tools from information exchange as a result of the unique characteristics of knowledge. Duffy (1999) states that an effective KMS should contribute in creating an environment in which the organization and its people can be successful through providing systems, tools, and techniques for managing knowledge, without imposing new demands or intruding into day-to-day tasks in the organization.

Although KMSs have been studied widely over the last several years, there is a lack of literature on the end users' adoption and continued use of KMSs. In general, post-adoption behavior of end users has not been studied widely. Some sketchy literature are available on other IT services, for example see Parthasarathy and Bhattacharjee (1998). This article thus addresses this gap and attempts to contribute to close this gap. Equipped with a background of high-level factors of adoption

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