Improving KMS Acceptance: The Role Of Organizational And Individuals’ Influence

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ABSTRACT

The purpose of this article is to contribute to the improvement of the acceptance of information systems (IS) devoted to the codification and sharing of knowledge (a type of knowledge management systems [KMS]). A research model was developed through a multi-staged, multi-method research process and its test supports the hypotheses that the acceptance of KMS is determined, in addition to the classical constructs of the technology acceptance model (TAM), by a few organizational factors, and by the influence exerted on the user by individuals close to her/him.

Keywords: acceptance of KMS; technology acceptance model; information systems; knowledge management systems

INTRODUCTION

The topics of knowledge management (KM) and KMS are among the most popular topics in the IS field with recent years yielding a number of reviews of the literature and taxonomies of KMS (Alavi & Leidner, 2001; Argote, McEvily, & Reagans, 2003; Jennex, 2006; Jennex & Olffman, 2004; Liao, 2003; Maier, 2002; Malhotra, 2004; Muscatello, 2003; Sambamurthy & Subramani, 2005; Wickramasinghe, 2003). Far from sharing a common viewpoint regarding to what extent and under which hypotheses KMS represent an actual support to organizational processes, researchers and practitioners in the KMS field recognize a number of issues that need to be studied. From the academic standpoint, Argote et al. (2003) and Sambamurthy Subramani (2005) have identified a set of emergent issues for the future of research on KM and KMS. They emphasize social relations in understanding knowledge creation, retention and transfer (Argote et al., 2003) and the role of IT to facilitate the efficient and effective development of communities of practice (CoP) (Sambamurthy & Subramani, 2005). They also point out the need to shift the interests of academia from single to multiple relations dealing with the KM process. The complementary practitioner view has been effectively synthesized by Smith and McKeen
(2003) who have collected opinions and expectations of chief knowledge officers (CKO). CCKOs are confident that the development of KMS has come to a turning point, where investments in implementation of new KM tools and methodologies should be replaced by initiatives aiming at measuring and maximizing the return on the investments (both in the organizational structure and in information and communication technologies [ICT]) that companies made in the past (Folkens & Spiliopoulou, 2004; Smith & McKeen, 2003).

Such indications suggest concentrating the efforts of research towards the achievement of a better and eventually a more complete understanding of the factors that influence the effectiveness and efficiency of a KMS. To this end, adopting a widely accepted definition of KM is a prerequisite. In this work we use the Alavi and Leidner (2001) KM definition which envisions KM as a process and the KMS as the specific IS which supports the organizational KM processes of creation, storage, diffusion, and application of knowledge. This definition fits our study for two reasons. First, it is compatible with those provided in relevant publications about KMS (Grover & Davenport, 2001; Hansen, 2002; Lai, Ong, Yang, & Tang, 2005; Money & Turner, 2005; Ong, Lai, Wang, & Wang, 2005; Schultze & Leidner, 2002; Xu & Quaddus, 2004, 2005). Second, it can be used to classify KMS applications according to their main purpose: (1) to code and share knowledge, (2) to create corporate knowledge directories, and (3) to create knowledge networks (Alavi & Leidner, 2001).

This article refers to the first category of KMS, therefore its general aim is to contribute to the improvement of the effectiveness of those KMS devoted to the codification and sharing of knowledge. In order to do so, a multi-staged, multi-method research has been carried out, combining a theoretical analysis with an empirical investigation, structured in a preliminary qualitative and a subsequent quantitative research that allowed to design and test a research model.

The Conceptual Framework of the Study

The aforementioned general objective of studying the effectiveness of a KMS can be translated to the objective of studying the acceptance of a KMS. The IS literature is rich in works on IS acceptance (Legris, Ingham, & Collerette, 2003; Money & Turner, 2005; van der Heijden, 2004; Venkatesh, Morris, Davis, & Davis, 2003), which has often used the concept of IS usage (Money & Turner, 2005; Venkatesh et al., 2003) measured using either self-reported or objective data.

Money and Turner (2005) consider user acceptance and usage crucial to determining KMS success and acceptance, but not amount of KMS use. Additionally, Jennex (2005) further proposes that KMS success is not based on the amount of system use but more importantly on the intention to use the KMS as a measure of KMS success.

A further assessment is performed by Jennex and Olfman (2005), as they review the fitness of different success models in the context of KM and they conclude highlighting the multi-dimensionality of IS success, as proposed by DeLone and McLean (1992).

Our focus nevertheless remains on the acceptance of the KMS, and therefore we investigate the KMS usage and not the KMS success.

An important contribution to this subject is represented by a research on the role of computer-aided systems for the organizational learning (Goodman & Darr, 1998). In that study, IS usage is defined as a process with two stages: (1) the nourishment (data entry and updating) of the IS, carried out through the formalization of solutions and best practices and the contribution of such formalization into the IS; (2) the utilization (in its narrow sense) of the IS, that is, the consultation of the IS and the application of the solutions provided by the system. The present work is based on this approach and focuses it on KMS and the first stage of IS usage: contribution, while the aforementioned study of Money and Turner (2005) focuses only on utilization, the second stage.
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