Chapter VIII
Tools for Supporting Knowledge Management:
Knowledge Internalization Through E–Learning

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ABSTRACT

This chapter presents a general overview of the relationships between information and communications technologies (ITCs) and the process of Knowledge Management (KM). ITCs through KM tools support the processes to obtain, use and exploit, create and discover, capture, organize and classify, and share and disseminate knowledge. In literature, many classifications of KM tools are defined but problems like bad structures and lacks of understanding have caused the definition of a structured and integrated classification of KM tools. The importance of obtaining knowledge is the reason to analyze KM tools classification in order to obtain profitable information to select the most appropriate one. E-learning techniques have been chosen as the most excellent method to turn explicit knowledge into tacit knowledge (internalization process), therefore a description of this technique will be developed. But the process of selecting the most suitable e-learning platform is difficult; hence a classification of the most relevant characteristics that will guide users will be defined.

INTRODUCTION

The increasing importance of knowledge is modifying the ways to manage organizations to obtain optimal results. Knowledge is a very important resource for any organization in order to preserve its cultural patrimony, to learn new things and to create new methods to solve new problems. It is a fundamental resource for organizations, and human resources are important players because they are the owners of the individual knowledge. Knowledge is an intangible asset, and its nature makes it difficult to manage. One of the most important challenges of organizations is to develop techniques, tools and oriented methods to create, obtain, assimilate, manage and apply the knowledge.

Currently, a great amount of organizations have understood that one of its strategic objectives, is to manage the knowledge with the creation and development of Knowledge Management (KM) technologies and tools to support this process. But the main problem is that Knowledge Management is a trendy concept, but its understanding is poorly applied in real cases. Knowledge has meant and means a challenge of great dimensions for organizations.

Organizations need a new approach of their organizational culture, and information and communication technologies (ICTs), support the activities associated to KM process in order to promote the generation of new competitive advantages. The applications of ICTs to KM process, cause the creation of KM tools. A great amount of tools classified as KM tools exist, but this rich variety and volume of tools have caused that several authors have performed numerous classifications of them. These categorizations try to describe and organize KM tools and their associated technologies. But problems like, bad structures and lack of understanding, appear within these frameworks. Tools, those are very different due to its conceptualization and functionality, are included in the same group. This fact produces serious incoherencies. Moreover, many of these classifications are presented as a simple list of KM tools without any type of connection. KM tools are in continuous evolution, but the classifications found in literature, do not allow integrating new tools that will be developed in the future.

Therefore, it is necessary to define a classification that resolves these problems. Within the project titled 'Integration of Business Processes, Knowledge Management and Decision Support Tools in Supply Chain of Industrial SMEs (GNOSIS)', research project financed by the InterMinisterial Commission of Science and Technology (CICYT) with reference number DP2002-01755, a study about KM tools has been developed. The results generated in the framework of this project are a classification of KM tools, within a well defined framework, the knowledge creation cycle adapted from Skyrme (1999) and the well-known cycle of Nonaka and Takeuchi (1995), in order to provide an integrated and structured view.

The development of this framework has enabled to establish an organized structure of KM tools. And one of our main objectives is focused on the internalization as a process to turn explicit knowledge into tacit knowledge, in order to apply their tacit knowledge to achieve their goals. If knowledge is explicit but it is not internalized, will not be incorporated into one's self", and this process is indispensable to make an optimal use of it. Therefore, taking this hypothesis as a starting point, we will focus on the obtaining stage through e-learning techniques as a KM tool that has the power of communication, organization, management and training.

Firstly, our intention is to make readers, familiarize with the basic concepts of e-learning. A brief state-of-the-art on e-learning will be exposed, which will treat from the pedagogical and technological perspective.

After discussing the advantages and disadvantages of e-learning, a classification of the most relevant characteristics to select the optimal

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