Chapter X
Method for Aligning Information Technology Resources to the Knowledge Management of an Organization

José Osvaldo De Sordi
Catholic University of Santos, Brazil

José Celso Contador
Nove de Julho University Center, Brazil

ABSTRACT
This chapter discusses and introduces a quantitative method for aligning information technology resources to the knowledge management of an organization whose purpose is to quantify the intensity of the available software functionalities, so as to maximize the benefits and minimize costs of the knowledge management process. Two important topics had to be developed for devising this method, whose results also are presented: the cycle of activities for an effective knowledge management and the description of functionalities, which may be implemented by means of software algorithms, with a potential to contribute to one or more process activities of knowledge management. The most important thing to emphasize about the method proposed herein is its capacity of aligning investments in information technology resources to the organization’s knowledge management process and the capacity of defining priorities for investments in software functionalities and proper algorithms for knowledge management.
INTRODUCTION

Challenges for Implementing an Organizational Knowledge Management

A significant part of the knowledge management projects that take place in organizations is not successful according to the research results by Storey and Barnett (2000). This scenario is not surprising, seeing that the diffusion the concepts and principles of knowledge management in organizations began a little more than a decade ago. Knowledge management, as an applied practice to organizations with clearly defined rules, roles, tools, and operational and managing activities, is not yet a reality. Knowledge management lacks an effective framework to help its implementation in organizations.

Making knowledge management a very successful organizational practice is somewhat difficult due to its complexity. The development of an organizational environment that is favorable to effective knowledge management involves: (1) managing employees’ motivation with the goal of increasing the size of the knowledge basis, as well as its utilization; (2) possessing a favorable organizational structure that, for example, helps information sharing; (3) creating an organizational culture that favors experimentation and learning with proper risk control; (4) possessing clarity of activities, rules, events, actors and roles, which characterize the process of the organizational knowledge management; (5) possessing technological capabilities that contribute to every activity required in the process of knowledge management. Among several others, those are a few important topics for providing knowledge management to organizations.

This chapter will deal with the fifth topic mentioned above: investments in information technology (IT) resources aiming at an effective knowledge management. The multitude of software choices, which offer different functionalities and contribute in various different ways in the process of knowledge management, plus the high cost of this technology, make this investment a great challenge.

Much has been published concerning IT applied to knowledge management, but these are mainly research studies with an operational focus. As an example, Zhang and Zhao (2006) have researched about publications made in major international academic journals, which correlate IT with the practice of knowledge management. Of the total number of articles found, 64% were found to discuss IT as a tool for knowledge management.

For this reason, the method presented here, to promote alignment of IT resources to knowledge management of the organization, is an important step for seeking better results with the practice of knowledge management.

Goals and Phases for the Method for Aligning Information Technology Resources to the Knowledge Management of an Organization

The considerations made in the previous subsection provided the main reason for developing the method proposed herein and they made possible to set its goal: quantify the intensity of the available software functionalities so as to maximize the benefits and minimize costs of the knowledge management process (KM process), or, in other words, to provide effectiveness, efficacy and efficiency to an organization’s KM process.

The objective of quantifying obviously involves a quantitative method, which is the characteristic of the method presented herein.

This method has four phases:

Phase 1: Identify major, medium and minor priorities among the activities that compose the organization’s KM process.
Related Content

Designing, Setting Up, and Facilitating a Knowledge Sharing Virtual Community of Practice, between Social Work Lecturers in the UK and India
[www.igi-global.com/article/designing-setting-facilitating-knowledge-sharing/75165?camid=4v1a](www.igi-global.com/article/designing-setting-facilitating-knowledge-sharing/75165?camid=4v1a)

Practice-Based Knowledge Integration
[www.igi-global.com/chapter/practice-based-knowledge-integration/17025?camid=4v1a](www.igi-global.com/chapter/practice-based-knowledge-integration/17025?camid=4v1a)

Preventative Actions for Enhancing Online Protection and Privacy
[www.igi-global.com/article/preventative-actions-enhancing-online-protection/55800?camid=4v1a](www.igi-global.com/article/preventative-actions-enhancing-online-protection/55800?camid=4v1a)

Intellectual Capital Explains a Country’s Resilience to Financial Crisis: A Resource-Based View
Carol Yeh-Yun Lin (2013). *Intellectual Capital Strategy Management for Knowledge-Based Organizations* (pp. 52-75).
[www.igi-global.com/chapter/intellectual-capital-explains-country-resilience/75252?camid=4v1a](www.igi-global.com/chapter/intellectual-capital-explains-country-resilience/75252?camid=4v1a)