

Chapter 6

A Model to Reduce the Risk of Projects Guided by the Knowledge Management Process: Application on Industrial Services

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ABSTRACT

Knowledge plays a key role in the information revolution. Major challenges are to select the information from numerous sources and transform it into useful knowledge. In this context and in an economy strongly focused on the “Knowledge”, take the turn of knowledge management becomes a strategic issue for the survival of organizations. However, the research in knowledge management focuses mainly on the creation, capitalization, and knowledge transfer process. Researchers are centered on the establishment of the knowledge management process in companies, but little about interaction between the knowledge management process and the risk management process. In this article, the authors propose a new model to reduce the risk of projects guided by the knowledge management process represented by the GAMETH method. They apply their approach to ammonia industry presented by the FERTIAL (Algerian-Spanish company).

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INTRODUCTION

Very many companies use the risk management for developing their activity (construction, computer science, ecology, industrial, pharmaceutical, health, etc.). Among the different research themes addressed in the literature, the risk reduction of projects remains one of the most studied together other important works on detection, evaluation, estimation, solutions and tools to be implemented. However, it appears that appropriation (learning) and experience (know-how) are effective ways to prevent risks.

Such knowledge acquired in the past should be managed to allow more effective risk management: one role of knowledge management. The latter is a way of systematic management of tacit knowledge and explicit knowledge. Indeed, its purpose is to retain, to transmit and to develop knowledge in order to:

- Improve the skills management,
- Promote innovation and creativity
- Support decision making.
- Increase productivity

In sum, risk management and knowledge management are two different fields that become more and more important for companies dealing in a global and multicultural environment.

In the first part, we present the main concepts that are used in our paper regarding to context and elements of the project, the theoretical concepts of risk management process, and knowledge management process. In the second part, we present our model to reduce the risk of projects guided by the knowledge management process by using the GAMETH method (Grundstein, 2012; Brahami et al., 2015). Thus, we refer to the knowledge stakeholders, their tasks, and the results of their problem-solving activities as knowledge resources.

THEORETICAL FRAMING

This section deals with the main concepts that are employed in this paper regarding to context and elements of risk projects.

Context and Elements of the Projects

In the literature of management and according to (Morley, 2003), the term project corresponds to the situation in which one finds oneself when we shall reach a goal with the means with ad hoc and in a given time frame. According to (Marciniak & Rowe, 2008), a project is defined as a specific action, new, with a limited duration, which structures methodically and progressively a given reality to come. In addition, the project is a complex system of stakeholders, means and actions, with the purpose to provide a response to a demand or a need. For Giard (Giard, 2004), the project is indicated as a specific approach that allows structuring methodically and progressively a reality to come. Also, a project is defined and implemented to elaborate a response as required by user or customer and it implies an objective and actions to be undertaken via concept data resources (Reina et al., 2012).

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