# Chapter 3.4
# Linking Exploration and Exploitation Capabilities with the Process of Knowledge Development and with Organizational Facilitators[1]

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## ABSTRACT

Knowledge management is a fundamental capability in today's evolving markets. Management needs to understand which organizational processes are necessary to trigger each of the stages in knowledge development. The objective of this study is to outline the main concepts and stages in the process of knowledge development in organizations and the organizational activities that have a positive influence on those stages. A conceptual framework is proposed which combines the model of knowledge development proposed by Nonaka (1994) with the concepts of exploration and exploitation initially described by March (1991). Information systems are seen to play a fundamental role in supporting this process, especially in activities related to exploitation capability.

## INTRODUCTION

The aim of this research is to go a step further in this direction. The Knowledge-Based View (or KBV) is taken as a starting point, but with the addition of concepts and lessons from the perspective of Organizational Learning (or OL), because the two views can be considered to be closely related, as

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described in the next section. The intention of this research is to take a closer look at the concepts of exploration and exploitation, which still stir controversy about their real meaning. Here, it is claimed that these are two capabilities which together will enable organizational knowledge to develop. An analysis to determine which processes activate these capabilities will make it possible to associate them with different phases of one of the most popular models of knowledge creation—that proposed by Nonaka (1994).

The main goal of this paper is to examine the activities and phases involved in the development of organizational knowledge, with special attention paid to determining which organizational activities make up this process. This conceptual analysis can then be used to draw conclusions about the organizational capabilities and activities that must be fostered by managers to develop knowledge.

After this introduction, the paper continues with a description of those ideas from the KBV literature that the authors consider to be most relevant to the present analysis. It also deals with some concepts that were initially put forward in the OL perspective. These two approaches claim that the capability to enable knowledge and organizational learning to evolve has become the most important capability for organizations. The main body of the paper begins with an analysis of the meanings of the concepts of exploration and exploitation, with brief comments on the controversy in the literature regarding their meanings. The knowledge creation model proposed by Nonaka (1994) is then described in detail, but as a model divided into several phases. Later, the concepts of exploration and exploitation are associated with the different phases of the knowledge creation process. The discussion concludes with a comprehensive description of the organizational processes that are involved in both the exploration and the exploitation of knowledge. These organizational processes are the ones that will enable knowledge to develop. In the fourth section, some future lines of research are proposed, and the conclusions that have been drawn are discussed.

## BACKGROUND

The importance of the creation, exploitation, and transfer of knowledge has been emphasized to the point where it now constitutes a body of theory in its own right, i.e., the KBV (Grant, 1996a, b; Nonaka, 1994; Nonaka & Takeuchi, 1995; Spender, 1996a, b). The KBV considers knowledge to be the most important strategic asset within an enterprise (Grant, 1996b; Quinn, 1992). Companies are increasingly investing in knowledge management systems to develop and exploit it (Sarvary, 1999). There are various classifications of knowledge management strategies (Choi, Poon, & Davis, 2008). The first of these categorizes strategies according to their focus. On the one hand, tacit-oriented strategies involve a personalized approach in which socialization processes are encouraged through individual contact and communication among organization members (Zack, 1999). On the other hand, an explicit-oriented strategy refers to the codification and reuse of organizational knowledge (Hansen, Nohria, & Tierney, 1999). This latter type of strategy is concerned mainly with the development and application of new information technologies to capture, store, and distribute the organization's explicit knowledge (Zack, 1999). The two strategies are based on the difference between the explicit and tacit dimensions of knowledge, which is explained below. The need for organizations to obtain a balance between the two types of strategy has been stressed in several studies (Choi & Lee, 2003; Choi, Poon, & Davis, 2008). Integrating the two approaches should lead to higher performance. In this paper, these two strategies are linked with