Chapter II
Does Knowledge Management Improve Firm Performance?
The Effect of Knowledge Distinctive Competences

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ABSTRACT

In the resource-based view (RBV) approach, the knowledge border rests on the understanding of the distinctive competences creation and recreation process. Moreover, in spite of the importance of knowledge assets, how knowledge is generated in organizations is still an unknown factor. This research studies the effect of introducing knowledge management programs in the development of knowledge distinctive competences, as well as their capability to create economic rents. In addition, we established a conceptual delimitation of knowledge management as a directive system through a set of principles and practices, which is a theoretical innovation in this research line. The theoretical relationships we propose are tested in an empirical study carried out in 222 firms from the Spanish biotechnology and telecommunication sectors.

INTRODUCTION

The study of the process of generation and regeneration of distinctive competences in the firm constitutes a relevant problem. Knowledge on organizational actions and decisions that allow for the development and renewal of the strategic assets portfolio in an organization still lacks a satisfactory structure (Zollo & Winter, 2002). While certain authors refer to the "knowledge-based economy", there is a gap in the knowledge about how knowledge is generated (Nonaka & Takeuchi, 1995). The aim of this research is to analyze how the introduction of knowledge management (KM) systems allows for the generation of distinctive competences based on knowledge assets, in order to create lasting abnormal results. Our interest lies in how KM might influence the acquisition and generation of competences and how it leads to economic rents being obtained. This problem is more closely related with the dynamic approaches of resource-based view (RBV) (Teece, Pisano & Shuen, 1997), which focuses on explaining how distinctive competences are created, developed, and accumulated.

In recent years, KM has aroused much interest in the field of management (Barnes, 2002; Davenport & Prusak, 2000; Mertins, Heisig, & Vorbeck, 2001; Mu-Yen & An-Pin, 2006; Nonaka & Takeuchi, 1995). Although knowledge is not a new concept, the increasing spread of theoretical works on KM is due to its significance to business, as well as to the development of the knowledge-based approach (KBA) (Grant, 1996a; Kogut & Zander, 1992; Nonaka, 1994; Nonaka & Takeuchi, 1995). KM has gained popularity as a consequence of the emergent need to incorporate the dynamics of changes to the information architecture and the business model, as well as to develop and encourage the growth of systems that are useful in adapting to a turbulent environment inherent to a knowledge-based economy (OCDE, 1996).

However, research into the possible effects of KM introduction on firm performance has been scarce and has many shortcomings (Davenport, 1999; DeCarolis & Deeds, 1999). Studies into KM and its effects have been mainly theoretical with little empirical evidence. The establishment of a direct causal relationship between KM and firm performance has a weak theoretical and empirical background (Alavi & Leidner, 2002; Real, Leal, & Roldan, 2006). As McEvily and Chakravarthy (2002) and Davenport (1999) point out, there is a lack of relevant contributions in the literature to justify the causal relationship between KM and firm performance and whether or not that relationship is mediated by other intermediate latent variables. Three specific problems make progress in the topic particularly difficult.

First, it is necessary to conceptualize KM as a base for the design of a measurement tool that includes all the essential dimensions needed to analyze the extent to which KM is implemented in the firm. To claim that knowledge competences are a result of the effective application of a KM system also seems a tautology. To avoid this risk, a suitable conceptualization of the two constructs involved in the relation, knowledge distinctive competences and KM, must be put forward. The recent literature (Alavi & Leidner, 2002; McEvily & Chakravarthy, 2002) recognizes the vulnerability of measurement indices and that it is essential to develop a metric to evaluate the benefits of KM systems. Alavi and Leidner (2002) show how none of the 109 leader organizations included in their research had introduced a formal cost-benefit analysis in their KM systems. We conceptualize KM as a management tool characterized by a set of principles and practices, whose aim is to create, disseminate, and benefit from knowledge.

A second question is the causal justification of the theoretical relationship between KM and firm performance. Dyer and McDonough (2001) conclude that four fundamental reasons exist for introducing KM in organizations: to capture and share best practices (77.7%), for training and learning (62.4%), to manage customer relations so as to improve customer satisfaction (58%),

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