Chapter 10

A Relational Based-View of Intellectual Capital in High-Tech Firms

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ABSTRACT

The Resource-Based View (RBV) has tried to test the role of strategic resources on sustained competitive advantage and superior performance. Although this theory has found several flaws in order to reach its objective effectively (Priem & Butler, 2001), recent proposals have suggested that these problems can be overcome (Peteraf & Barney, 2003). This solution requires paying a greater attention to the analysis of knowledge stocks, developing a mid-range theory: the Intellectual Capital-Based View (Reed, Lubatkin & Srinivasan, 2006). This mid-range and pragmatic theory allows the hypotheses development and empirical testing in a more effective way than the RBV. There is a certain degree of general agreement about the presence of human capital and organizational capital as the main components of intellectual capital, as well as about the fact that the configuration of knowledge stocks will vary from one industry and firm to another one. Taking these assumptions as a starting point, this paper explores the configuration of intellectual capital that can be empirically found on a sample of high-technology firms. Our findings highlight the importance of relational capital, which must be divided into business and alliance capital, so the strategic alliances play a relevance role in the type of firms that have been included in our research.

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INTRODUCTION

From the Resource-Based View (RBV), it is widely accepted that sustained competitive advantage and superior rents are closely tied to company ability to utilize and deploy its intangible resources and capabilities, or its knowledge stocks (Barney, 1991; Grant, 1996) or intellectual capital (Subramaniam & Yound, 2005).

Nevertheless, the RBV suffers from various concerns (Priem & Butler, 2001): (i) it is not prescriptive; (ii) it is too general; (iii) and it lacks a clear definition of its key concepts, among other. These can be the reasons why there is so little effort in studying a conceptual and empirical test of it.

To overcome some of these concerns, during the 90’s has arisen a pragmatic and focused framework, called Intellectual Capital-Based View (ICV) (Reed et al., 2006). As a mid-range theory, ICV should allow a better hypotheses development and empirical testing than a more generalize framework as the RBV.

In this sense, there are several intellectual capital models that have been provided in the literature (Brooking, 1996; Kaplan & Norton, 1996; Edvinsson & Malone, 1997; Bueno, 1998; CIC, 2003; among others) to measure and conceptualize intellectual capital. However, it is necessary to improve previous proposals and empirically support models for the classification and measurement of intellectual capital.

At this point, most of them, use three elements of intellectual capital: human capital, structural capital, and relational capital (Leitner, 2005), which are representing, in a wide sense, all expressions of firm’s knowledge stocks. In this way, it is tried to reconcile the concept of intellectual capital (CIC, 2003).

This work is based on an empirical research in high-tech organizations since the dominant stream of the theoretical proposals of intellectual capital adopt the follow basic three components:

- Human capital, which includes values and attitudes, aptitudes, abilities, experiences and know-how of employees to carry out different activities into the organization.
- Structural capital that contains both organizational and technological elements that pursue integration and coordination within the firm. In this sense, the structural capital is the whole of organizational methods and processes needed in order to obtain products and services as well as complete organizational tasks.
- And relational capital, which gathers the value of relationships maintained with external agents by a firm (close to business activity or through strategic alliances).

The empirical research, focused on high-tech firms, presents an interesting case for the study of different kinds of intangible or knowledge assets in knowledge-intensive firms (Leitner, 2005), and the aim of this paper is testing the previous models, and providing a configurative definition of intellectual capital from the different components that it comprises.

THEORETICAL BACKGROUND

Knowledge assets-intellectual capital-as economic wealth have been accepted along the scientific literature as well as its useful application (Teece, 1998). Although studies about its identification, measurement and strategic assessment are limited because there are several problems implicated in that. These problems are examined by the models of intellectual capital, carrying out their measurement and identification of the different components that compose it. Furthermore, the importance of managing the intellectual capital in firms supposes a key point to perform a work like this.

On the other hand, the definition of intellectual capital by Bueno (1998: 221): ‘basic competen-