Chapter 12

Intellectual Capital and Business Performance in University Spin-Off Companies

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ABSTRACT

University spin-off companies are under many competitive pressures that necessitate ongoing innovation and new product development. Technological and managerial knowledge endowed to spin-offs at start-up largely determine their potential for success, since exploiting this knowledge is their main activity. This chapter discusses the issue of university spin-off companies with particular emphasis on the role of intellectual capital, as the new engine of corporate development and one of the great clichés of recent years. In addition, the study also analyzes the relationships between intellectual capital and the company’s performance. It highlights how various types of intellectual capital (human capital, structural capital, relational capital) are strategically important for innovative start-up firms.

INTRODUCTION

Nowadays we can observe significant changes in the model of research institutions management and their relationship with the business world. Awareness of the key importance of modern solutions in the economic development caused strong interest in business spin-offs, since their ability to create innovations is an important sign of efficiency. University spin-offs are the most innovative: rely on new technologies and on knowledge and experience of highly skilled employees who represent very sophisticated competencies. They facilitate the delivery of high value-added products and services (Mavridis, 2004).

Moreover, university spin-offs are a relationship-rich industry, in an increasingly complex environment, depend critically on the quality of
human intellectual capital. Even though intellectual capital has been recognized as a business’s wealth driver, there are issues that should be debated. Especially in contest of organizational performance as a recurrent theme in various domains of management and an important concept in strategic management.

DEFINITION OF INTELLECTUAL CAPITAL AND ITS COMPONENTS

The literature on intellectual capital has deployed a variety of diverse definitions:

- Basically related to knowledge that can be converted into value (Edvinsson & Sullivan, 1996),

- The knowledge, information, intellectual property and experience that can be put to use to create wealth (Martinez & Garcia-Meca, 2005),

- Broad organizational knowledge unique to a firm, which allows it constantly to adapt to changing conditions (Mouritsen, 1998),

- Intangible assets which include technology, customer information, brand name, reputation and corporate culture that is invaluable to a firm’s competitive power (Low & Kalafut, 2002),

- A set of intangibles (resources, capabilities, and competences) that drives the organizational performance and value creation (Bontis, Fitz, 2002).

There is no generally accepted definition of intellectual capital, however in most of presented approaches there are three common elements:

- Intangibility.
- The fact that it creates value.
- The growth effect of collective practice.

Intellectual capital is a matter of creating and supporting connectivity and interactions between sets of internal and external competences (Chatzkel, 2002). It is significantly associated with organizational performance and has the potential to produce unique firm-based capabilities (Constantin and Lusch 1994). Additionally it is capable of many simultaneous applications, provides firms with broad-based value that is tough to copy, therefore acts as a source of competitive advantage (Hitt et al. 2001). Hence, intellectual is identified by three components (Bontis, 1999):

- **Human Capital:** Competencies and innovativeness of the employees,
- **Structural Capital:** Strategic asset, which is comprised of non-human assets,
- **Relational Capital:** Knowledge embedded in relationships with customers, suppliers, industry associations or any other stakeholder that influence the business.

It is necessary to underline that none of the dimensions is alone valuable, worth is created and through the active interaction of the three dimensions of intellectual capital.

UNIVERSITY SPIN-OFF COMPANIES

A spin-off is the creation of new business initiatives within already existing company or organization, started by an employee or a relative small group. Spin-off becomes independent with their own feasibility in terms of legal, technical, and commercial structure. It means the separation from the parent unit to a new activity, and refers to a new company created for the commercial exploitation of resources (Bjørnåli & Gulbrandsen, 2009). University spin-off companies are a particular expression of academic entrepreneurship. They are the primary mechanism for knowledge and tech-