Chapter 5

A Conceptual Framework of the Relationship between Institutional Framing and Innovativeness

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ABSTRACT

This chapter’s objective is to analyze the institutional networks of the spin-off companies. To meet this objective cases of three universities are being evaluated and compared. The comparison of cases from the USA, Denmark and South Korea suggests that the institutional network has a significant impact on the development of the spin-off company. The role of different agents (for example universities) change with time during different stages of the development of the spin-off. The study suggests that there are certain similarities between different institutional networks, including the dependence on context, importance of intermediaries and similar roles of the institutions within the networks.

INTRODUCTION

Understanding university spin-off companies emerge is a major research challenge, therefore it is necessary to gain better understanding of the process of how entrepreneurial ventures are created and developed and what factors impact these processes. The process of spinning out a company from university is inherently complex due to uncertainty regarding how to develop a business concept, gain necessary resources, and make effective decisions. One way of approaching this conundrum is to look at the network complexities of the spin-off ventures. University spin-off companies need a broad network to proceed from an idea to a value creating firm. For most new ventures the network should be created during the early phases of their development. In this chapter we investigate the network required to overcome the initial hurdles.

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of the company creation process in order to gain reliability with potential investors and partners. The value network created around spin-off companies shapes the role that, third parties play in influencing the value captured from commercialization of an innovation (Christensen & Rosenbloom, 1995).

We focus our investigation on the creation development of spin-off firms by university researchers based on academic research. Although many studies have examined the university spin-off formation process (Mustar et al., 2006), there is a gap in the literature relating to the network. Understanding of the meaning of network is necessary to create and develop a new venture. We resolve this challenge by investigating the process and providing case studies. In this way we can observe the network required to make the transition from academic research to the development of a potential commercial opportunity.

In this study we pose the following research questions: ‘Which institutions are needed for creation and development of spin-off ventures within a university context to reach the credibility? How the network is managed?’ The main objective of the study is to analyze the institutional networks of spin-off companies, their characteristics and impact on development of the innovation in different stages of progress. In this article we make several contributions to understanding the initial development phase of university spin-off companies. In particular, we address the research gap regarding new venture emergence in different institutional settings examining the role of incubator organizations. We contribute by showing that it is not satisfactory to say that certain networks are needed but that it is also necessary to identify what institutions provide services to spin-offs. First, we claim that the network is needed to discover opportunities based on scientific research and to further refine these opportunities into viable business concepts. Second, it is necessary to develop the network.

This article proceeds as follows. The following section presents theoretical framework on university spin-offs development and their network. The third section presents the institutions that stand the network. In the fourth section, case studies are presented. Finally, a discussion considering the implications for further research and practice is provided.

BACKGROUND

University spin-off companies are an important part of the new economy, as are the makers of the latest technologies and create new sectors of production. University spin-off company is a complex and multi-stage project aimed at transforming existing knowledge into an innovative product to meet the needs of the market, it require specific resource configuration, skills and network. The concept of university spin-offs refers to the transfer of knowledge and technology in the context of research and development projects. University Spin-Off companies (USOs). Pirnay, Surlemont, and Nlemvo (2003) define these generically as “New firms related to exploit commercially some knowledge, technology or research results developed within a university” (p. 356). University spin-off companies create knowledge-pool - provide organizational bridges between local businesses and universities. Roberts and Malone (1996) created organizational models put forward to describe spinoff formation process based on the individuals and processes involved put forward five alternative structural models involving four principal groups:

1. **The Technology Originator**: An individual or group of engineers/scientists that work in the organization and bring the technology to the point where it is ready to be commercialized;
2. **The Entrepreneur**: The individual entrepreneur or entrepreneurial team who take the technology from the technology originator and attempt to create the new venture from it;