

## Chapter 8

# Project Management in IT Type University Spin-Offs

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### ABSTRACT

*Poor project management in IT companies, strong industry competition, and small firm fragility are some of the most often cited arguments to justify business failure. This chapter provides an integrated view of concepts involved in information technology project management in university spin-off companies. It includes a presentation of a success story of an IT university spin-off, which from the very beginning of its activity focused mainly on project management processes. The chapter explains how university spin-off organizational structure influences the project management process and discusses important methods and approaches that can determine IT spin-off successes.*

### INTRODUCTION

The future of many innovative companies depends on their ability to harness the power of information technology (IT) and effective project management. Computer software, hardware and the use of interdisciplinary highly skilled team works have radically changed today's society and the use of modern project management techniques facilitates process of implementation and development of new IT products and services.

Until recent times there was a slight interest among the researchers in university spin-offs' project management. However, it is well known that university spin-off companies promote flexibility in industry structure and industry management. They facilitate the development of high-risk products as well as risk-taking attitude among more traditional companies and managers in the IT business. The researches in institutions are recognized as being among the most critical success factors in information technology develop-

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ment the evidence of the correlation abounds in leading American universities: Harvard University, the Massachusetts Institute of Technology, Duke University, the University of North Carolina, Princeton University, Columbia University Stanford University, the University of Washington (National Research Council, National Academy of Sciences, 2003).

Due to the diversity in information technology projects and the newness university spin-off management process it is important to develop and follow the best practices in managing this complex and very prospective initiatives. This chapter presents the problem of information technology project management in university spin-off companies and approaches a common starting point and methods to follow. Explain how organizational structure influences project management process and discusses factors which can determine success of IT type university spin-offs.

## **UNIVERSITY SPIN-OFF COMPANIES**

The technology and knowledge are transferred from the research organizations to the industrial adopters, just before the process of commercial application of academic research. University spin-offs are a perfect tool for technology transfer. The university spin-off process is initiated inside the university which creates and facilitates the spin-off process, both formally and informally. However it is necessary to underline that university spin-offs find their parallel in the corporate entrepreneurship concept (Sharma, Chrisman, 1999). This feature follows the logic of Bjørnåli, Gulbrandsen (2009) who describe spin-off as a new business initiative within already existing company or organization, started by an employee or a relative small group. They underline that spin-off company becomes independent with its own feasibility in terms of legal, technical and commercial structure, and refers to the separation from the parent unit to a new activity created for the commercial exploitation of resources.

The process of transformation is complex and sometimes possess challenges for both the spin-off project and the context which it operates; the clash of scientific and industrial culture often leads to difficulties and sometimes to failure of the new venture (Samsom, Gurdon, 1993). Vohora et al. (2004) claim that “without developing or accessing the capability to combine scientific knowledge with a commercially feasible offering that satisfies an unfulfilled market need, academic scientists would not be able to proceed towards commercializing their technologies” (p. 149). In reference to intellectual property university spin-offs are defined as “a company founded to exploit a piece of intellectual property created in an academic institution” (Shane, 2004, pp.25).

University spin-off companies are initiated by faculty, students, graduates and other staff who either leave university to start company, or create company while is still inside the university (Rapport et.al., 1999). The university spin-off ventures are established to exploit new research results, in which new information and new technology plays an important role; accelerate the process of commercialization of research, combine market mechanisms and resources of higher education and accelerate the implementation of innovative solutions (Ramusen, 2006).

University spin-off companies are a particular expression of academic entrepreneurship. They are the primary mechanism for knowledge and technology transfer within the research and development projects, and can be supported by government and private funds (Bercovitz, Feldmann, 2006).

The university environment is considered to be a perfect place for creation and development spin-off processes. University spin-off companies are supported by technology transfer centers, incubators, technology parks those institutions serve as a vehicles to support spin-offs activities; facilitate technological diffusion from university research to industry, manage and enhance the value of the university’s intellectual property, direct the entrepreneurs to venture capitalists and business angels, establish their representation on

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