

A FRAMEWORK FOR EXPLAINING THE UNIVERSITY SPIN-OFF PROCESS

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ABSTRACT

This paper focus on the process of creating new businesses based on university research. Academic research is seen as a source of new technology and knowledge with potential application in society. Universities are increasingly expected to engage in the process of transferring this knowledge to practical use through university based spin-off businesses. This paper addresses the lack of common ground in studying the university spin-off phenomenon by developing a framework for describing the process of commercializing university research by establishing new business activity. A common framework can help in positioning existing research's contribution to the understanding of how new research-based companies are created, and facilitate more productive empirical research in the future.

A university spin-off is defined as new business activity founded to exploit technology and know-how developed in a university. The framework developed here is based on the assumption that the creation of university spin-offs is dependent on entrepreneurial action as a driving force. The creation of university spin-offs may be labeled a special instance of corporate entrepreneurship. This view includes the role of the university both as context for, and actor in the entrepreneurial action. Spin-offs are also a channel for dissemination of research results into application in society. Hence, universities can use entrepreneurship as a strategic tool for technology transfer, through the creation of spin-off companies. In order to develop a framework for studying university spin-offs, the assumptions and main focus areas of entrepreneurship, corporate entrepreneurship, and technology transfer research is compared.

Researchers in the field of entrepreneurship often define entrepreneurship as a process, and points at the need to develop theories that take into account the dynamics of complex entrepreneurial processes. The creation of a university spin-off venture is indeed a complex process where many actors are involved and many routes can lead to the same goal. Apparently, a large number of factors influence this process, but not only of the efficient cause kind and in a linear fashion as described by variance theories. Although, looking for causal relations explaining the emergence and development of university spin-offs might yield fruitful results, it seems unlikely that a university spin-off is a causal result of some necessary and sufficient conditions. Alternatively, the process leading to a new spin-off venture can reveal factors that are necessary, although not sufficient, for spin-off creation, and patterns of probability for spin-off creation. Hence, in order to explain how university spin-offs emerge and develop, it is likely that taking a process theory perspective will be rewarding.

Guided by the central topics in process theory and the research traditions in entrepreneurship, corporate entrepreneurship, technology transfer and university spin-offs, a framework for studying and explaining the university spin-off process is developed. The suggested framework in this paper centers around the business opportunity, the entrepreneur(s), and the university support as central elements in the spin-off process. The changes in these three elements and their changing role throughout the process of developing a university spin-off are discussed. The university spin-off process is not static, hence attention needs to be directed toward the particular dynamics in different phases of development. Elements of process and time such as preceding conditions, the opportunity identification, the commitment to pursue an opportunity, framing and development of a new venture project is depending on different characteristics in the operating context and participating actors.

If policy makers and universities seek to promote the creation of new spin-off ventures as a tool for technology transfer and economic development, the factors that facilitate and inhibit the new venture gestation process in a university setting needs to be addressed. By taking into account the process over time, this framework aims to increase our understanding of how university spin-offs emerge and develops.