

Chapter 7

Academic Entrepreneurship, Knowledge Transfer, and Academic Spin-offs

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ABSTRACT

Academic entrepreneurship literature has been covering a wide array of subjects, including studies on the role of universities in the process of transferring knowledge, the role of governments in spin-off processes and on the creation of new companies (start-up) and also with several scopes of research, such as the role of university policies in the creation, development and relative performance of spin-offs. These new companies are an important mechanism for transferring knowledge, but their performance/survival rate is considered low. Despite their importance in knowledge transfer, there are still few studies on this mechanism, which demands further research. In this chapter, the aim is to understand the phenomenon of academic entrepreneurship in its diverse dimensions, the process and the different mechanisms of knowledge transfer; and to ultimately understand the role of academic spin-offs in the conversion of knowledge produced in universities.

INTRODUCTION

During the last centuries, one of the main roles of universities and other public research organizations has been the creation of new knowledge through scientific research and its subsequent publication. Traditionally, universities functioned as an “ivory tower” (Link & Scott, 2005), in which the knowledge produced by research was disseminated through teaching and academic publications.

However, throughout time, the role of academic institutions has been evolving and assuming an increasing important role in society.

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In the last decades, as a result of the combination of a number of factors, universities have been on the spotlight of several discussions on the production, diffusion, and conversion of knowledge in economic and social value. Indeed, the increasing globalization of the economy and growing competition have made knowledge one of the crucial factors of competitiveness in modern economies, reinforcing the role of institutions responsible for their production (Debackere & Veugelers, 2005).

It is within this context that the so-called “entrepreneurial university” emerges, a term coined by Etzkowitz (1993) to describe a series of changes in the relationship between universities and society, and particularly the transfer of knowledge to the economy. Universities have been gradually assuming a more active role in the direct commercialization of in-house research results, and new and different transfer mechanisms of knowledge to external entities have recently appeared. One of these mechanisms concerns the creation of new companies, to which knowledge is transferred, and is ultimately responsible for the commercialization and conversion of knowledge in economic value.

This process, which can be classified as “academic entrepreneurship”, has been gaining more attention, both in terms of academic research and in the political scene (Grinstein & Goldman, 2006; Grilli, 2014). In part, this is due to the evolution of the universities’ role in the national innovation programs, and the greater importance of the so-called “third mission”, which allows these entities to play a more active and direct role in the economic and social development, beyond the traditional research and teaching mission (Etzkowitz, 2003).

Although academic entrepreneurship is a phenomenon which has been present throughout history, it has recently assumed a prominent role in the political agenda. Governments and public authorities have begun to consider universities as important actors in the local development where these are located, given its ability to create knowledge, attract companies to settle in its environment and promote qualified jobs creation through new companies (Zahra & Wright, 2011; Meyer, Libaers, & Park, 2011).

These new companies, born from knowledge produced in Higher Education Institutions (HEI), which will be addressed as ASO - Academic Spin-off (used by some authors), are of the most effective mechanisms in knowledge transfer from universities to the economy and society. These mechanisms have been scarcely studied and, thus, demand further research and analysis.

This category of companies have some specificities, namely: independent, small dimension, young and high qualifications of its founders, a high and systematic investment in Research and Development (R&D), keen on innovation and, in some cases, a need of significant capital at their early stage of development, and especially their connection to centers of knowledge production, such as universities, other high-education institutions or R&D centers (Ensley & Hmieleski, 2005; Clarysse, Wright, & Van de Velde, 2011; Ganotakis, 2012).

This article aims to establish a cause-effect link between the production of knowledge and its conversion into economic and social value through the link between academic entrepreneurship, knowledge transfer and the creation of academic spin-offs.

This chapter has an exploratory character (Malhotra, 2001) and its specific goals are: 1) to understand the phenomenon of academic entrepreneurship in its diverse dimensions; 2) to understand the process and the different mechanisms of knowledge transfer; and 3) to understand the role of academic spin-offs in the conversion of knowledge produced in universities; 4) establish a causal link between the three topics addressed in this chapter which allows a better understanding of the relationship and interdependence between knowledge production, stimulus to entrepreneurial activity (intention and entrepreneurial orientation of HEIs, students, teachers and researchers) and knowledge conversion in economic and social value through the creation of academic spin-offs.

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