Chapter 18

Innovative Management of Spanish Academic Science Parks: Designing and Testing of Management Tool

Monica Cerdan-Chiscano
Ramon Llull University, Spain

Ana Isabel Jimenez-Zarco
Open University of Catalonia, Spain

Joan Torrent-Sellens
Open University of Catalonia, Spain

ABSTRACT

The correct management of academic science parks is strategic for universities, as well as has synergistic effect for companies there in installed. Park managers choose who the tenants for the parks are, but also they take other strategic decisions relative to: (a) academic spin-offs creation, (b) investment in technology-based companies, o (c) consolidation the start-ups that have finished their incubation period. Managers have tools to increase quality decisions and reduce the level of risk associated. However, the park’s nature and characteristics are unique, thus tools must be flexible, and able to adapt to the changing reality of the companies, park and environment. Based on the previous ideas, the present chapter proposes to design and test a management tool for science parks based on organizations and entrepreneur’s characteristics. Results obtained show that the tool is very useful, due that its simplicity, flexibility and adaptability for be used in any Science Park.

DOI: 10.4018/978-1-4666-8798-1.ch018
ACADEMIC SCIENCE PARK: THE CURRENT SITUATION

What explains the development of academic science park? Why do academic science park have reached a high degree of development in certain countries? Have academic science park really favoured the growth of firms, and thus the territory’s economic and social development?

Over the last thirty years, governments in developed countries have placed increasing emphasis on measures to support small firms, especially those firms what are high technology (Berry, 1998). Furthermore, cooperation network strategies between a firm and other businesses, or other external public and private organizations can lead to an efficient use of firms’ resources, especially in some complex situations, such as the innovation development processes (Westhead and Storey, 1995).

Both facts influence directly and justify the interest on the Science park phenomenon, and even explain their important development and diffusion during the last three decades.

The concept of academic science park is originated back in the late 1950s of the last century. The academic science parks are usually created around universities, where new firms -usually driven by an entrepreneur with few resources - interact continuously with them. The idea is to provide an infrastructure of technical, logistic, administrative help that a young firm needs as it struggles to gain a foothold for its product in an increasingly competitive market (Guy, 1996). The development of academic science park in Europe clearly has received its early impetus from the USA experience. The first and probably the most successful science park of all time, the Stanford University Science Park in California, was founded in 1950 and in 1986 had already over 80 occupant companies employing over 26000 people. Starting slowly the Park eventually drew in Eastman Kodak and Varian and accommodates new university-spawned companies such as Hewlett-Packard and Syntex, thereby fuelling its growth from both external and internal sources. Silicon Valley, the regional expression of the ‘Stanford phenomenon’, in 1986 had already more than 3000 advanced electronics companies providing over 200,000 jobs.

Research parks became more common in Europe during the 1980’s. However, majority of the currently existing Science & Technology Parks in the world were created during the 1990’s of the last century (Storey and Tether, 1998).

Academic literature on the actual performance of academic science park is not unanimous. Thus, some studies point to the benefits that academic science park offer to firms, while others works show how firms’ presence in a science park has negative effects on them. In this sense, Massey et al. (1992) argue that academic science park are not major sources of technology development, and geographical proximity between a university and a science park seems to account for very little in promoting technology transfer. They found many academic science park to be primarily a form of prestigious real estate with few productive synergies generated. On the other hand, Castells and Hall (1994) argue that the synergies are not likely to happen in low-density academic science park. Westhead and Storey (1995) found that a number of firms have located on a science park in order to be close to a university.

Academic science parks have achieved high popularity, both in USA and Europe. However, the extent to which these university–firms links existed have been less than that anticipated. This finding is supported by Vedovello (1997) who shows, through a comparative analysis, that geographical proximity between partners is not an important influence — or a driving force for the existence or strength of formal links between university and industry. However, previous research suggests the importance of geographic proximity for successful university–industry relations (Agrawal and
Related Content

Creativity, Entrepreneurship, and Labor Dynamics: The Role of Creative Workers in Portugal
[www.igi-global.com/chapter/creativity-entrepreneurship-and-labor-dynamics/192813?camid=4v1a](www.igi-global.com/chapter/creativity-entrepreneurship-and-labor-dynamics/192813?camid=4v1a)

Retail Prices and E-Commerce
Jihui Chen (2019). *Advanced Methodologies and Technologies in Digital Marketing and Entrepreneurship* (pp. 315-326).
[www.igi-global.com/chapter/retail-prices-and-e-commerce/217305?camid=4v1a](www.igi-global.com/chapter/retail-prices-and-e-commerce/217305?camid=4v1a)

Recommender Systems: The Importance of Personalization in E-Business Environments
[www.igi-global.com/article/recommender-systems/106898?camid=4v1a](www.igi-global.com/article/recommender-systems/106898?camid=4v1a)

BookingFax: A New Concept of Tourism Intermediation
[www.igi-global.com/chapter/bookingfax-new-concept-tourism-intermediation/6325?camid=4v1a](www.igi-global.com/chapter/bookingfax-new-concept-tourism-intermediation/6325?camid=4v1a)