

The instrumentation of science parks: an integrative framework of enabling factors

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Abstract

Purpose – Research on Science parks (SPs) has attracted a growing interest in the last decades. This widespread innovation policy initiative pursues technology-based industrial and entrepreneurial growth through business development and technology transfer across new and mature firms. Despite the common agreement on SPs' potential benefits, literature have showed mixed results regarding the performance of SPs. To explain this findings, current research pointed out at the lack of a common guiding framework. To cover this knowledge gap, this manuscript proposes an integrative definition and research model together with a multidimensional measurement instrument suitable to encompass the diverse reality of this global phenomenon.

Design/methodology/approach – Based on a systematic literature review of 281 indexed journal articles published between 1990 and 2018, the paper provides an integrative framework of enabling factors of SPs' performance.

Findings – The results illustrate an integrative conceptual framework of SPs that allows further comparison and generalization of research. At the same time, this manuscript provides valuable insights for managers and entrepreneurs as it conveys a standardized view of SPs' internal context useful for benchmarking.

Originality/value – Grounded in the resource-based view (RBV), the paper conducts a thorough literature review to develop an integrative research model featuring three value streams: physical infrastructures, formal links and support services. In addition, a multidimensional measurement tool to operationalize these three dimensions is proposed.

Keywords Science parks, Resource-based view, Integrative framework, Physical infrastructures, Formal links, Support services

Paper type Literature review

1. Introduction

Science parks (SPs) are a global phenomenon that brings together innovative firms, research and resources in order to artificially generate agglomerations of enterprises conducive to technological innovation (Chen *et al.*, 2013; Meseguer-Martinez *et al.*, 2019). Being the most of them planned and developed to imitate the success of naturally emerging clusters (Koçak and Can, 2013), they are intended to support the economic and social development of regions through technology transfer, business innovation and technology-based entrepreneurship. Over the years, SPs have become key actors within regional innovation systems and important policy tools for economic landscapes development (Gkypali *et al.*, 2016). SPs enable to create clustering effects (Yang *et al.*, 2009) and support not only innovation in new firms, which lack the necessary knowledge and resources, but also the business expansion of consolidated firms (Huang *et al.*, 2012).

