

Chapter 17

Degree of Openness in Public Policies: A Conceptual Proposal

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ABSTRACT

Research conducted around the topic of open innovation has been mainly empirical in nature and primarily focused on firms. For a better understanding of open innovation, it is important to conduct further research beyond the “firm environment”, particularly in areas related to public policy. This chapter addresses the topic of open innovation, relating it to public policy, analyzing the framework conditions that can stimulate the development of open innovation in organizations. More specifically, the chapter uses the Portuguese public policies as a case study. A methodology is proposed and discussed for analyzing the degree of openness in public policy, concerning policy orientation to support the development of open innovation.

INTRODUCTION¹

The topic of open innovation has been one of the most researched in the literature of innovation management, having increasing attention in disciplines such as economics, psychology or sociology (Huizingh, 2011). Research conducted around open innovation has been mainly empirical in nature and primarily focused on firms (Chesbrough and Bogers, 2014; Chesbrough and Schwartz, 2007; Helfat and Quinn, 2006). For a better understanding of open innovation, it is important to have further research out of the firm environment,

particularly in areas such as innovation systems or public policies, given their importance to the creation of conditions to stimulate open innovation activities (Chesbrough and Bogers, 2014). In this sense, this Chapter brings up the topic of open innovation to the area of public policy, analyzing the framework conditions for the development of open innovation, using the Portuguese public policies as a case study. In this Chapter it is proposed a methodology to analyse the degree of openness of public policies, concerning their orientation to support the adoption of open innovation by companies and other organizations.

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METHODOLOGY

This Chapter is developed as follows: a) background and literature review about the relevance of public policies in supporting innovation and open innovation; b) identification of the most relevant public policies to stimulate open innovation, based in the conceptual framework proposed by de Jong *et al.* (2010); c) analysis of the most relevant public programs to promote open innovation, based in the Portuguese case (12 programs were found); d) within these 12 programs, 35 typologies of project were identified in total, being analyzed the respective Rules and Legislation, identifying their eligible expenditures (expenditures that beneficiaries - companies or other entities - can benefit when they submit their projects for public funding); e) proposal of a classification of the “degree of openness” and the “level of openness” of each public program, concerning their orientation towards open innovation; f) conclusion and future research directions.

BACKGROUND: PUBLIC POLICIES AND OPEN INNOVATION- A CONCEPTUAL OVERVIEW

The term “open innovation” emerged in 2003 from the observation and analysis of innovation practices present in multinational companies (based in the United States of America - USA), where it was found that these practices functioned as an open system, with multiple interconnections with external actors. This work was initially developed by Professor Henry Chesbrough (2003a), which distinguished this open innovation model from the vertically integrated model – the dominant model in the twentieth century - in which companies had all the control of the innovation process - traditional innovation model (West *et al.*, 2014).

The conclusions of Chesbrough indicated that large multinationals did not abandoned the traditional innovation model (vertically integrated)

definitively, but that it was complemented with a set of external demand for technology and its incorporation in the company`s production process, as well as through the monitoring of the technology flows generated internally that were targeted to markets, through licensing processes, for example (Chesbrough, 2006, pp. 2-3). This form of organization of innovation has been designated by the term open innovation (original term):

Open innovation means that valuable ideas can come from inside or outside the company and can go to market from inside or outside the company as well. This approach places external ideas and external paths to market on the same level of importance as that reserved for internal ideas and paths to market during the Closed Innovation Era. (Chesbrough, 2003a, p. 43).

Chesbrough and Bogers (2014) introduced new insights to this definition, namely through the notions of pecuniary and non-pecuniary mechanisms associated with knowledge flows:

... we define open innovation as a distributed innovation process based on purposively managed knowledge flows across organizational boundaries, using pecuniary and non-pecuniary mechanisms in line with the organization's business model. (Chesbrough and Bogers, 2014, p. 17).

In this definition is highlighted the importance of knowledge flows management, including in R&D activities. These flows can be managed in an intentional way by organizations, through inflows of external knowledge and outflows of not used internal knowledge (Chesbrough and Bogers, 2014, pp.12-13). In the last decade, research on open innovation has been conducted essentially in an empirical base, focused more on countries that are in the technological frontier and on companies with global strategies, and at the firm level (Chesbrough and Bogers, 2014; Helfat and Quinn 2006). Nevertheless, the analysis of open

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