

## Chapter 54

# Research Dimensions of Open Innovation in Small and Medium Enterprises

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### ABSTRACT

*Innovation is treated as a recognized driver of economic prosperity of a country through the sustained growth of its entrepreneurships. Moreover, recently coined term open innovation is increasingly taking the lead in enterprise management in terms of value addition. Foci of academics, researchers and practitioners nowadays are revolving around various innovation models, comprising innovation methods, processes and strategies. This chapter seeks to find out open innovation researches and practices that are being carried out circumscribing development of entrepreneurships, particularly the sector belonging to the small and medium enterprises (SMEs) through a longitudinal study. Along this context the chapter put forwards part of a continuous study investigating into researches in the area of open innovation for entrepreneurship development that are being carried out by leading researchers and research houses across the globe, and at the same time it also investigating open innovation practices that are being carried out for the development of entrepreneurships, emphasizing SMEs. Before conclusion the chapter has tried to develop a framework to instigate future research.*

### INTRODUCTION

Innovation is not any more just a research topics, but it has become a significant driver for prosperity, growth and sustained profitability to global entrepreneurships. Innovation along its route to the current period exhaled new methods or tools in terms of products, processes or organizational management. As far as this literature review and research go, from its early inception inscribing issues of economic development (Schumpeter, 1934; 1942; 1950), patents and licensing (Von Hippel, 1988), organizational networking (Powell, 1990), process innovation (Davenport, 1993), co-opetition (Brandenburger and Nalebuff, 1996), management of intellectual capital (Grindley and Teece, 1997) till the coining up of

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its features in more familiar ways framing on the utilization of information technologies, such as open innovation (Chesbrough 2003a; 2003b), innovation never stayed stalled. Furthermore, due to opening up the innovation processes and combining internally and externally developed technologies and strategies to create economic value the innovation has crossed the boundary of closed innovation to open innovation (Rahman and Ramos, 2010; 2012).

Traditionally, firms used to prefer the so-called, closed innovation strategies in developing their own products internally, and with limited interactions with the external world (Lichtenthaler, 2011). In recent years, researchers and practitioners are showing interests in open innovation research and practices that are visible during the literature review in various publications, and conference proceedings. This has also been observed in contemporary literatures that innovation researches are shifting from the closed and controlled environment of the corporate entrepreneurs towards more open and flexible model, based on cooperation and coordination among various parties. Knowledge and new technologies are no longer remaining sole properties of major monopoly corporations (Caetano and Amaral, 2011; Westergren and Holmstrom, 2012).

In this aspect, the business sector belonging to the small and small enterprises (SMEs<sup>1</sup>) play important role in networking and making innovation clusters in association with universities and research houses, being recognized as major driving forces in the open innovation paradigm.

SMEs also play a crucial role in raising investments in spin offs, start ups, or research and development (R&D) and making countries more competitive, which is true for not only the European Union but also in other countries (European Union, 2005). Moreover, the majority of the developing and transitional economies have acknowledged that SMEs are the potential engine of economic growth and source of sustainable development, which are essential for industrial reformation, new job creation, and revenue generation of the population at large (Koyuncugil & Ozgulbas, 2009).

However, this research observes that utilization of open innovation strategies for the development of SMEs remains low in terms of researches and practices (Chesbrough 2003a; 2003b; West, Vanhaverbeke & Chesbrough, 2006; Lichtenthaler & Ernst, 2009; Lindermann, Valcareel, Schaarschmidt & Von Kortzfleisch, 2009; Van de Vrande, de Jong, Vanhaverbeke & de Rochemont, 2008; 2009), especially finding interpretative results justifying through empirical studies. Only a limited number of literatures are there to support the introduction of OI strategies in SMEs.

This study while conducting an empirical study in Portugal among some selected SMEs, has tried to synthesize various research dimensions by carrying out a longitudinal study. In doing so, a thorough literature review has been conducted emphasizing researches conducted by leading researchers and practitioners through two most comprehensive search engines (Sciencedirect, and Scopus), though hardly these could be recognized as cent percent contribution towards SMEs growth. While investigating into the open innovation aspects of SMEs, the study covered characteristics of individual firms, and group of firms (by human aspect, financial aspect, and issues of challenges in adopting OI strategies) taken at national or regional contexts. The intention is to prepare a report by mapping the issues of challenges, and on adoption of OI strategies in Portugal. However, this chapter restrains only within the theoretical contexts on various research dimensions that the study has encountered during the initial stage of the research, including the conduction of the pilot survey and extension of the survey in a few other countries of similar socio-economic status.

The chapter has been divided into five sections. Introducing about generic perspectives of open innovation in SMEs, the next section discusses specific research aspects of open innovation. The third section is the main thrust of the chapter, which discusses about the literature search using two search

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