Modele +
RAI52 1–10

ARTICLE IN PRESS

Available online at www.sciencedirect.com

FEA USP

IMR Innovation & Management Review
RAI - Revista de Administração e Inovação

RAI Revista de Administração e Inovação xxx (2017) xxx–xxx

http://www.revistas.usp.br/rai

Fostering and limiting factors of innovation in Micro and Small Enterprises

Tiago Bomfim Claudino*, Sandra Maria dos Santos, Augusto Cézar de Aquino Cabral, Maria Naiula Monteiro Pessoa

Universidade Federal do Ceará – UFC, Ceará, CE, Brazil

Received 20 May 2016; accepted 2 January 2017

Scientific Editor: Felipe Borini

Abstract

Literature discusses innovation factors by admitting differences between large and small firms. With this background, this research aimed to investigate the fostering and limiting factors of innovation in Micro and Small Enterprises. We adopted the categorization used by Souza and Bruno-Faria (2013) in their study on large companies to analyze MSE's reality. Research methodology had a qualitative approach and a descriptive nature, and was conducted through interviews with 20 entrepreneurs and a local innovation agent from SEBRAE (Brazilian Support Service for Micro and Small Enterprises), who acted as an innovation promoter for MSE in the city of Picos, in the Brazilian state of Piauí. Results showed that the main fostering factors were Management support and Planning of actions required for implementation. The main limiting factors were Absence of qualified personnel, Fear of innovation consequences, and Entrepreneurs and employees' conformism. Unlike other studies, the results show that the factors that affect innovation in MSE do not differ significantly from those in larger companies.
© 2017 Departamento de Administração, Faculdade de Economia, Administração e Contabilidade da Universidade de São Paulo – FEA/USP. Published by Elsevier Editora Ltda. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

Keywords: Innovation; Micro and Small Enterprises (MSE); Fostering and limiting factors of innovation

Introduction

Innovation is an important instrument for companies to increase their competitiveness, and thus survive in a scenario of changing and increasingly demanding markets (Benito-Hernandez, Platero-Jaime, & Rodriguez-Duarte, 2012; Kastrati, 2015; Mazolla, 2013; Xie & Zeng, 2013). Considered a driving force of economic development (Schumpeter, 1988), innovation has aroused interest among academics and executives from different fields of knowledge, and became the subject of research and events that address the sustainable competitiveness of organizations (Santos, 2011; Xie & Zeng, 2013).

The large number of internal and external factors that influence the innovative process makes it difficult to assess this phenomenon (OECD, 2005; Souza & Bruno-Faria, 2013). By acknowledging the importance of the subject (Kastrati, 2015; Silveira, 2013), a stream of the literature has addressed these factors. But most of the research has focused on large companies (Benito-Hernandez et al., 2012; Silva & Dacorso, 2013), with Micro and Small Enterprises (MSE) coming next.

These small firms constitute the economic basis of many nations, by fostering innovation, employment, competitiveness and global economic growth (Taneja, Pryor, & Hayek, 2016). In Brazil, SME exceed 9 million businesses (98% of total companies), accounting for more than half of the formal jobs and a significant portion of national GDP (SEBRAE, 2015).

Considering the relevance of MSE and of innovation factors for their survival and competitiveness (Pereira, Grapeggia, Emmendoerfer, & Três, 2009; Santos, 2011), this paper aimed to investigate the fostering and limiting factors of innovation in MSE.

Literature (Mazolla, 2013; Silva & Dacorso, 2013) suggests that innovation in MSE has different attributes than in larger companies. When studying the Spanish reality, Benito-Hernandez et al. (2012) proved the variation of factors between companies of different sizes.

* Corresponding author.
E-mails: tiagofederal10@gmail.com (T.B. Claudino), smsantosufc@gmail.com (S.M. Santos), cabral@ufc.br (A.C. Cabral), naiula@ufc.br (M.N. Pessoa).

Peer Review under the responsibility of Departamento de Administração, Faculdade de Economia, Administração e Contabilidade da Universidade de São Paulo – FEA/USP.

http://dx.doi.org/10.1016/j.rai.2017.03.007
1809-2039/© 2017 Departamento de Administração, Faculdade de Economia, Administração e Contabilidade da Universidade de São Paulo – FEA/USP. Published by Elsevier Editora Ltda. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

Please cite this article in press as: Claudino, T. B., et al. Fostering and limiting factors of innovation in Micro and Small Enterprises. *RAI Revista de Administração e Inovação* (2017), http://dx.doi.org/10.1016/j.rai.2017.03.007

UNCORRECTED PROOF

The research conducted by Souza and Bruno-Faria (2013) approached Brazilian larger companies and defined 21 factors that influenced innovation, of which nine were fostering factors and 12 were limiting factors. The present study has adopted this categorization, but was not limited to it, in order to investigate the reality of MSE. To do so, a descriptive research of qualitative approach was carried out, through interviews with 20 MSE considered of low technological intensity – low-tech (Zawislak, Zen, Fracasso, Reichert, & Pufal, 2013), and one local innovation agent (SEBRAE's ALI program) who acted in these firms.

Considering its novelty, the study contributes academically to the understanding of the fostering and limiting factors of innovation in MSE, and affects the business and social contexts, since it can guide the actions of companies' managers and of experts on innovation public policies toward the economic growth of the country.

Second section addresses the theoretical framework and third section explains the methodology. In sequence, we present the results and their analysis and discussion, followed by the conclusion, which includes the research limitations and suggestions for future studies.

Theoretical framework

This section presents the concepts of innovation, its influence factors and the specificities of innovation in MSE.

Innovation

Starting from the initial conception by Schumpeter (1988), the Organization for Economic Co-operation and Development [OECD] (2005) defined innovation as the implementation of a new or significantly improved product (good or service), or a process, or a new marketing method, or a new organizational method in business practices, in the organization of the workplace or in external relations. Hence, there is product, process, marketing or organizational innovation.

Innovation is something that emerges from a new idea that must be necessarily put into practice, and should be capable of generating value for the company or for the stakeholders (Schumpeter, 1988). For organizations, innovation enables greater competitiveness and the possibility of business survival (Benito-Hernandez et al., 2012; Kastrati, 2015; OECD, 2005; Pereira et al., 2009; Schumpeter, 1988).

In the process of implementing innovations there is always the possibility of uncertainty, especially due to the presence of several individual, technological and cultural factors (Benito-Hernandez et al., 2012; Tidd, Bessant, & Pavitt, 2008), as presented below.

Fostering and limiting factors of innovation

Mazolla (2013) observed that the effectiveness of the innovation process is a management issue, and it should be carried out in a systemic way, involving all the company's departments. The task of managing innovation relates to the establishment of organizational routines and to the investigation of environmental factors that affect the success of the innovative process (Tidd et al., 2008).

Factors related to innovation are dynamic in nature, which makes it difficult to accurately measure and understand their impacts. Fostering factors can stimulate the implementation of new ideas and practices, while limiting factors can stop innovation, delay it or raise its costs (OECD, 2005; Souza & Bruno-Faria, 2013).

Many papers (Alencar, 1995; Benito-Hernandez et al., 2012; Bruno-Faria & Alencar, 1996; Dorow, Medeiros, Souza, & Dandolini, 2013; Gomes & Lapolli, 2014; Kastrati, 2015; Mazolla, 2013; Sousa, 2006; Souza & Bruno-Faria, 2013; Taneja et al., 2016) discuss several factors that affect innovation in the organization's external or internal environment. This research adopted as the main reference the factors described by Souza and Bruno-Faria (2013), who categorized nine fostering and twelve limiting factors in the innovation process. Despite emerging from larger companies, we consider the classification adequate for smaller companies.

(a) Fostering factor 1 (F1) – Management support: support from top and middle management. It is represented in the literature by the following expressions: 'freedom and autonomy for employees'; 'encouragement of creativity and production of ideas'; 'support from executives or heads of departments'; 'tolerance to risk and error'; 'adequate financial incentives'; 'presence of creative leaders'; 'control through goals and results over standards'; 'leadership'; 'innovation as organizational goal' (Alencar, 1995; Bruno-Faria & Alencar, 1996; Dorow et al., 2013; Gomes & Lapolli, 2014; Parolin, Vasconcellos, & Bordignon, 2006).

(b) F2 – Support of working groups and collaborators: Receptivity, motivation and involvement of employees regarding innovation. It is described in the literature as: 'employees' participation'; 'support from workgroup and colleagues'; 'motivation and personal involvement'; 'acceptance of new ideas'; 'cooperation'; 'interaction between actors'; 'knowledge sharing' (Alencar, 1995; Bruno-Faria & Alencar, 1996; Dorow et al., 2013; Sousa, 2006; Souza & Bruno-Faria, 2013).

(c) F3 – Diversity of competencies in the group responsible for innovation: Different qualifications, experiences and skills required for innovation. This factor is addressed in the literature as: 'acceptance of differences'; 'favorable organizational climate'; 'use of ideas'; 'synergy'; 'innovation approach under multiple perspectives' (Dorow et al., 2013; Gomes & Lapolli, 2014; Parolin et al., 2006; Sousa, 2006; Souza & Bruno-Faria, 2013).

(d) F4 – Disclosure of information on innovation: Use of efficient communication channels to implement innovations. The literature addresses this factor as: 'skilled communication between managers and staff'; 'knowledge of organizational strategy'; 'transparency and visibility of the innovation process' (Dorow et al., 2013; Pacagnella & Porto,

UNCORRECTED PROOF

Please cite this article in press as: Claudino, T. B., et al. Fostering and limiting factors of innovation in Micro and Small Enterprises. *RAI Revista de Administração e Inovação* (2017), http://dx.doi.org/10.1016/j.rai.2017.03.007

متن کامل مقاله

دریافت فوری

ISIArticles
مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات