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ARTICLES:

- 7 Ferreiro Seoane, F. J., Del Campo Villares, M. O., Camino Santos, M.**
Analysis of business incubators in Galicia through the «Integral Model of economic profitability»
- 33 Bilbao-Terol, C., Valdés, L.**
The environmental setting, farming activities and rural accommodation prices
- 53 Torregrosa Montaner, R. J.**
Measurement and Evolution of Nationalist Identity in Spain
- 71 Muñoz, F., Trombetta, M.**
Provincial Activity Composite Indicator (ISAP): a contribution to the analysis of Argentine regional economies
- 97 Arauzo-Carod, J.-M.^a, Manjón-Antolín, M., Martínez, Ó.**
The Relocation of R&D Establishments in France: An Empirical Analysis

**METHODOLOGICAL
AND RESEARCH NOTES:**

- 123 Maroto, A., Zofío, J. L.**
Using the economic theory of index numbers to decompose the road freight generalized transport costs

SURVEYS AND DEBATES:

- 137 Martos Núñez, E., Martos García, A. E.**
Regional Legends as Intangible Values

EUROPEAN REGIONAL POLICY:

- 161 Cordero Mestanza, G.**
Promoting innovation in EU regional and cohesion policy 2014-2020: implementation in Spain

BOOKS REVIEWS:

- 189** *Economía y Política de las Balanzas Fiscales en España*
by **Antoni Zabalza**

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Medición y evolución de la identidad nacionalista en España
- 71 Muñoz, F., Trombetta, M.**
Indicador Sintético de Actividad Provincial (ISAP): un Aporte al Análisis de las Economías Regionales argentinas
- 97 Arauzo-Carod, J.-M.^a, Manjón-Antolín, M., Martínez, Ó.**
The Relocation of R&D Establishments in France: An Empirical Analysis

NOTAS METODOLÓGICAS

Y DE INVESTIGACIÓN:

- 123 Maroto, A., Zofío, J. L.**
Nueva metodología para la descomposición de los costes generalizados del transporte de mercancías por carretera usando la teoría económica de los números índice

PANORAMA Y DEBATES:

- 137 Martos Núñez, E., Martos García, A. E.**
Las leyendas regionales como intangibles territoriales

POLÍTICA REGIONAL EUROPEA:

- 161 Cordero Mestanza, G.**
La promoción de la innovación en la política regional y de cohesión en el periodo 2014-2020: su aplicación en España

RESEÑA DE LIBROS:

- 189 Economía y Política de las Balanzas Fiscales en España**
por **Antoni Zabalza**

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ARTÍCULOS

Analysis of business incubators in Galicia through the «Integral Model of economic profitability»

Francisco Jesús Ferreiro Seoane*, Manuel Octavio Del Campo Villares**,
Marta Camino Santos***

ABSTRACT: One of the economic policies used by governments for local and regional development is the encouragement of entrepreneurship through business incubators, which contribute to the creation of companies and employment, increase business survival rates and the payment of taxes and social contributions to public administration. However, they are consumers of external resources and have a high dependence on the Public Sector. In this study we analyse the net contribution of these business initiative centres in Galicia (Spain) through the use of the «Integral Model of profitability of business incubators» based on structural equations.

JEL Classification: R38; R53.

Keywords: business incubators; resources; creation of companies; employment; structural equations.

Análisis de los viveros de empresas en Galicia a través del «Modelo integral de rentabilidad económica»

RESUMEN: Una de las políticas económicas utilizadas por los diversos gobiernos para el desarrollo local y regional es el fomento del emprendimiento a través de los viveros de empresas, que contribuyen a la creación de empresas, de puestos de trabajo, incrementar las tasas de supervivencia empresarial y el pago de impuestos y cotizaciones sociales a las administraciones públicas. Pero como contrapartida son consumidores de recursos ajenos, con gran dependencia del sector público. En este estudio se pretende analizar la contribución neta de estos centros de iniciativas empresariales en Galicia (España), mediante la utilización

* Department of Applied Economics. University of Santiago de Compostela. E-mail: *franciscojesus.ferreiro@usc.es*.

** Department of Applied Economics. University of A Coruña. E-mail: *moctadv@udc.es*.

*** Phd Researcher. E-mail: *marta.camino@udc.es*.

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del «Modelo integral de la rentabilidad de los viveros de empresas» basado en ecuaciones estructurales.

Clasificación JEL: R38; R53.

Palabras clave: vivero de empresas; recursos; creación de empresas; empleo; ecuaciones estructurales.

1. Introduction

For years, the European Commission has been supporting the work of the entrepreneur. Those who are not able to find employment can opt for entrepreneurship, which can mean in practise an increase in the perspectives of improvement (European Commission, 2003). The importance of entrepreneurship was already highlighted by Schumpeter throughout his work (1912, 1934, 1939, 1947), who linked entrepreneurship, innovation and economic development, building an entire «Theory of Economic Development» where the entrepreneur would play a key role (Liñán, 2004). Along these lines Petit (2007) highlighted that entrepreneurship accelerates the appearance of new initiatives and promotes the growth and economic development of countries. The new businessman acts as an instrument to invigorate the economies with creativity and innovation, according to Peñaherrera and Cobos (2012).

Innovation as well as the entrepreneur are born in a society that conditions their function as the «Institutional Economic Theory: North's perspective in the field of business creation» indicates, (Díaz, *et al.*, 2005, Aidis *et al.*, 2008; Thornton *et al.*, 2011; Veciana and Urbano, 2008; Welter, 2005) and which requires an ecosystem that promotes innovation and entrepreneurship (Lakala, 2001). Therefore, innovation and business spirit have become one of the main promoters of economic growth, with business incubators being one of the measures that help to reach the aforesaid objective (Lakala, 2002). Business incubators have been established as a support for economic development (Ratinho and Henriques, 2010). Besides, they contribute in an efficient way to employment generation and creation of wealth (Amirahmadi and Saff, 1993; Phan *et al.*, 2005), and their impact on economic growth and regional development has been investigated in different economies (OECD, 1997, 1999, Al-Sultan, 1998; Cabral and Dahab, 1998; Kihlgren, 2003; Vaidyanathan, 2008; Watkins-Mathys and Foster, 2006). That explains why state and local governments worldwide have promoted the establishment of incubating facilities (Schwartz, 2013). Nevertheless, incubators are idiosyncratic regarding regional context (Hannon and Chaplin, 2003), although their main economic objectives are totally comparable and measures for success should be quite similar (Ratinho and Henriques, 2010; Schwartz and Göthner, 2009).

2. Objectives of the article

The new efforts of investigation should be focused not only on the investigated units of analysis, but also on the process of incubation (Hackett and Dilts, 2004). And precisely because of the need to search for new lines of investigation, the objective of this article is to analyse the economic profitability of business incubators in the case of Galicia (Spain).

To do so, we will review the literature starting from what business incubators are, their contributions and limitations, to studying the profitability analysis of business incubators thoroughly. Business incubators are highly dependent on public assistance (Vaquero and Ferreiro, 2012). There are even authors that question their efficacy as Tamásy (2007), who indicates that incubation programmes are perceived as an approach from an unproductive policy and suppose a loss of money driven by the politician.

To analyse profitability, the contribution of business incubators in Galicia will be quantified, measured by means of business creation, employment generation, business survival rate and occupation rate. But as resources and grants are needed to reach the objectives, whether the investment is profitability or not will be analysed once they are quantified using the econometric model based on structural equations. We will finish off with some conclusions and proposals for the future.

3. Literature review

3.1. Concept and development of business incubators

There are many definitions of business incubators as those used by Smilor and Gill (1986); Martínez (1987); Camacho (1998); Quintas *et al.*, (1992); Velasco (1995); Juncar *et al.*, (1995); Amirahmadi and Saff (1993); *UK Business Incubation* (2000); Barrow (2001); Rice (2002); Hackett and Dilts (2004); Hansson *et al.* (2005); NBIA (2006); UKBI (2007); Bergek and Norman (2008); *European Business Incubation Centres Network* (2009); Ferreiro and Vaquero (2010), among others. By looking for the common denominators, we could make an initial approach to the concept of business incubators as institutions that have as their objective the creation of competitive companies with high survival rates, allow sustainable employment generation and contribute to local and regional development, by offering a space and range of services for a limited yet sufficient time.

The origin of business incubators, according to Aerts *et al.* (2007), is located in the US with the installation of the first incubator in Batavia (New York) in 1959. This phenomenon spread very quickly across the US. Due to the crisis of the 70s, business incubators started to become important tools of industrial politics, the *Small Business Administration* (US) created the first incubator promotion programme. Since 1985 there has been a big boost of business incubators with the creation of the *National Business Incubator Association* (NBIA).

In Europe, business incubators are mainly set up in England supported by the *British Steel Corporation* and the EU, which establishes a series of measures destined to start up initiatives that encourage the creation and maintaining of companies and generate new jobs (Rice, 2002).

Initially, business incubators only offered a physical space where companies could be installed (Gatewood *et al.*, 1985; Peterson, 1985; Allen, 1985). This was partly motivated by the sensitiveness of the entrepreneur to the price of rent (Gómez y Galiana, 1998), infrastructure being a basic function common to all kinds of incubators (Allen and McCluskey, 1990). This way Jenssen and Havnes (2002) observe that countries with a long tradition of incubators are still offering basic and elemental services. In 2005, Chan and Lau stated that the provision of space had been identified by the entrepreneur as the most beneficial characteristic of business incubators.

Nevertheless, an incubator is much more than the provision of physical space as its essence is to help to create viable-sustainable companies, develop competitive capacities and take advantage of synergies between entrepreneurs/users. Ideas that have been developed by Markley and McNamara (1994) when they expounded that the companies in incubators benefit from the assistance services and opportunities of the network. On the other hand, incubators must also implement different mechanisms of support as the needs of the companies change whilst they are developing (Vohora *et al.*, 2004). Blanco *et al.* (2014) determined that 92.9% of business incubators in Spain have an advisory service. In the work of Bruneel *et al.* (2012) we can observe how in third-generation incubators, besides space, there is support to entrepreneurs such as coaching and a bigger access to venture capital. The creation of the network is another positive aspect highlighted by Álvarez *et al.* (2012) and Sá and Lee (2012).

3.2. The importance of business incubators and their limitations

Lewis (2001) considered that they have become a tool to promote the creation of new businesses. This explains that in the year 2002 in the US there were 900 incubators that had helped to create more than 19,000 companies and subsequently, 245,000 jobs (Scaramuzzi, 2002). The NBIA (2006) found that the number of incubators had increased to 5,000, of which 1,400 were located in North America and had experienced an increase of 169% in the last five years.

However, the phenomenon of business incubators is a policy of economic promotion used in many countries of the world and Europe is not unaware of this. According to Fernández *et al.* (2011), Germany is the country with the most incubators on this continent followed by France and the UK. According to Schwartz and Hornyh (2010), there were about 400 business incubators operating in Germany at the end of 2009, the first one opening in Berlin. In Spain, 300 incubators were estimated, Cataluña being the Autonomous Community with the highest number of incubators followed by Andalucía, Madrid and Valencia (Vaquero and Ferreiro, 2015).