

Incubation Landscapes in the United States and Brazil: A Comparison Study

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This paper reviews the literature on incubators in the United States and Brazil. The paper focuses on the six dimensions of 1) strategic focus, 2) entrepreneurship, 3) incubators' funding, 4) incubators' services, 5) culture, and 6) innovation. The research methodologies adopted in this research study are literature reviews and case studies. The paper concludes that incubators are a vital tool for economic development, technology transfer, innovation, and jobs creation.

1. Introduction

Business incubation in America has been beneficial to the creation and sustainment of start-up business, and they have proven to contribute significantly to the national economy at the macroeconomic level. In addition, the start-up outcome from incubators has made up the bulk of American employment for at least the latter half of the twentieth century (Birch, 1979). Moreover, from a statistical standpoint, the survival rate of start-up companies is 10% (InfoDev, 2009).

Business incubators act as a strong tool to support the structure of new businesses and give them the assistance and support they need to grow (Rice and Matthews, 1995). The attraction of business incubation is based on their ability to generate jobs, at a generally low public cost that remain in the community (Molnar et al., 1997). The incubators' terms are flexible in the types of benefits and services offered to entrepreneurs. Additionally, they accommodate several types of growth to reach the desired economic development. Therefore, incubation can serve a local start-up business.

The objective of this paper is to describe the incubators' landscapes in the United States and Brazil focusing on six dimensions: 1) strategic focus, 2) entrepreneurship, 3) incubator's funding, 4) incubator's services, 5) culture, and 6) innovation.

The paper is structured as follows: Section 2 provides a thorough review of the literature on the details of incubator models. In Section 3, the research methodology includes the successful multi-case studies, which describe a number of aspects of business incubation in the United States and Brazil. In Section 4, the authors briefly discuss the finding of the study drawn from the analysis of comparison between models of U.S. incubators and models of Brazilian incubators. Section 5 concludes with implications of the incubators' models in both countries.

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2. Review of the Incubators Literature

Business incubators are used as tools for economic development by almost all countries (Al-Mubarak and Busler, 2009, 2010; Al-Mubarak, Al-Karaghoul and Busler, 2010). Typically, an incubator provides the firm (client, or start-up business) services in its early stages of growth. This is accomplished through a mix of tangible and intangible services. From the perspective of local economic development, these services include those such as 1) space and shared services, 2) administrative assistance, 3) consulting, 4) coaching/training/networking, and 5) access to financing (Hackett, and Dilts 2004a; Hackett and Dilts 2004b; Chinsomboon 2000; Lalkaka 2000, 2001, 2002, 2003; Temali 2002; Rice and Matthews 1995; Al-Mubarak, 2008). The NBIA defines business incubators as entities that “accelerate the successful development of entrepreneurial companies through an array of business support resources and services, developed or orchestrated by incubator management and offered both in the incubator and through its network of contacts” (NBIA, 1998, 2002, 2005).

In addition, the United States government plays a vital role in supporting incubators in the United States with legislative allocations for economic development going to support incubators in many of the States. The role of the United States government is involvement through funding from federal, state and local levels (Chandra, and Fealey, 2009 and Al-Mubarak and Busler, 2010).

In the United States, incubators are mix-service type with the strategic agenda of the sponsor's motives and the type of incubator model (Chandra and Fealey, 2009). The incubators provide the basic, tangible services, since their tenant mix generally consisted of a range of businesses from various industries. Initially, incubation in the United States has been moving toward a service mix with value-added services such as networking (Ekholm and Haapasalo, 2002).

The role of the government in Brazil works closely with universities and industries to support business incubation efforts (Almeida, 2005). There are two principal objectives of Brazil's government: technology development and social development. In addition, the government, universities and industries describe the incubators as a potential tool to advance their objectives (Chandra and Fealey, 2009), which is in contrast to those in the U.S.

Moreover, Chandra and Fealey (2009) and Chandra (2007) define the incubators in Brazil as provisions of unique and specialized services to support new businesses by providing an innovative climate for their growth through guidance and consulting in addition to offering the space and operational infrastructure.

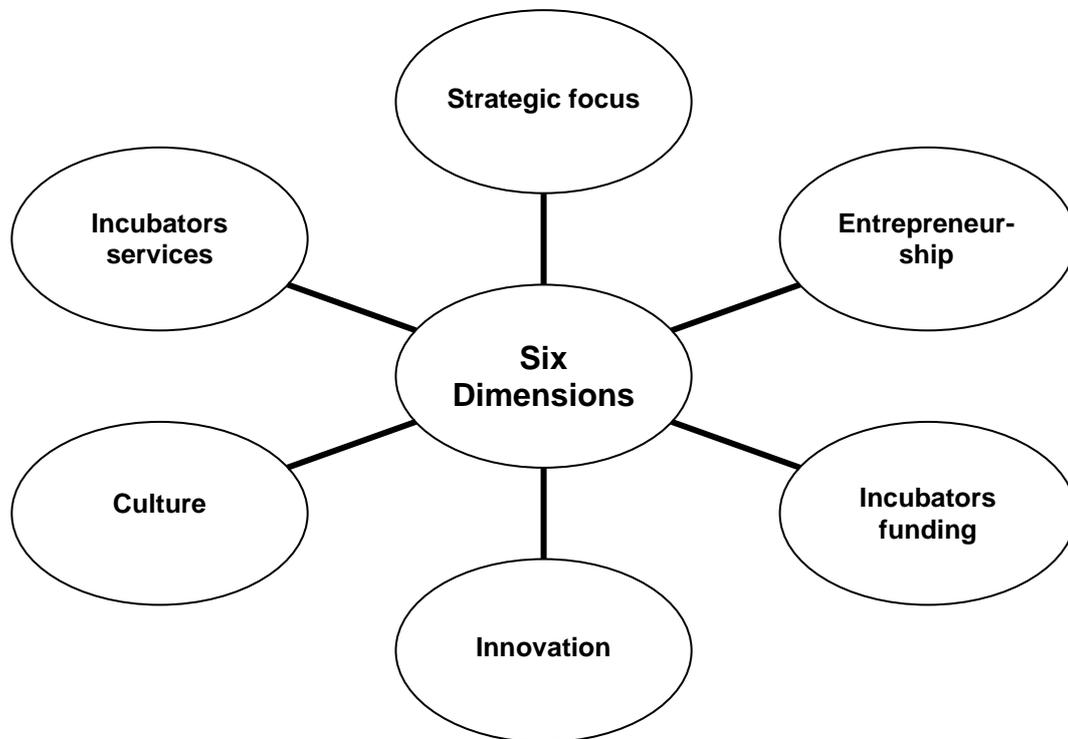
3. The Methodology

The study employs a case analysis comparison technique which describes a number of aspects of business incubation in the United States and Brazil and then compares the two. The paper looks at additional ways to compare the models based on six dimensions which include 1) strategic focus, 2) entrepreneurship, 3) incubator's funding, 4) incubator's services, 5) culture, and 6) innovation. This study is also based on a study of the current academic literature and work currently being

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undertaken with funding in the United States and Brazil, see figure 1. Furthermore, the case study method is recognised as the most effective research strategy to capture the “rich” experience of complex projects (Eisenhardt, 1989 and Yin, 1994).

Figure 1: Six Dimensions



4. The Findings

Business incubations are powerful tools for economic development in both countries. Incubators offer many benefits, such as jobs creation, technology transfer, fostering entrepreneurship and innovation.

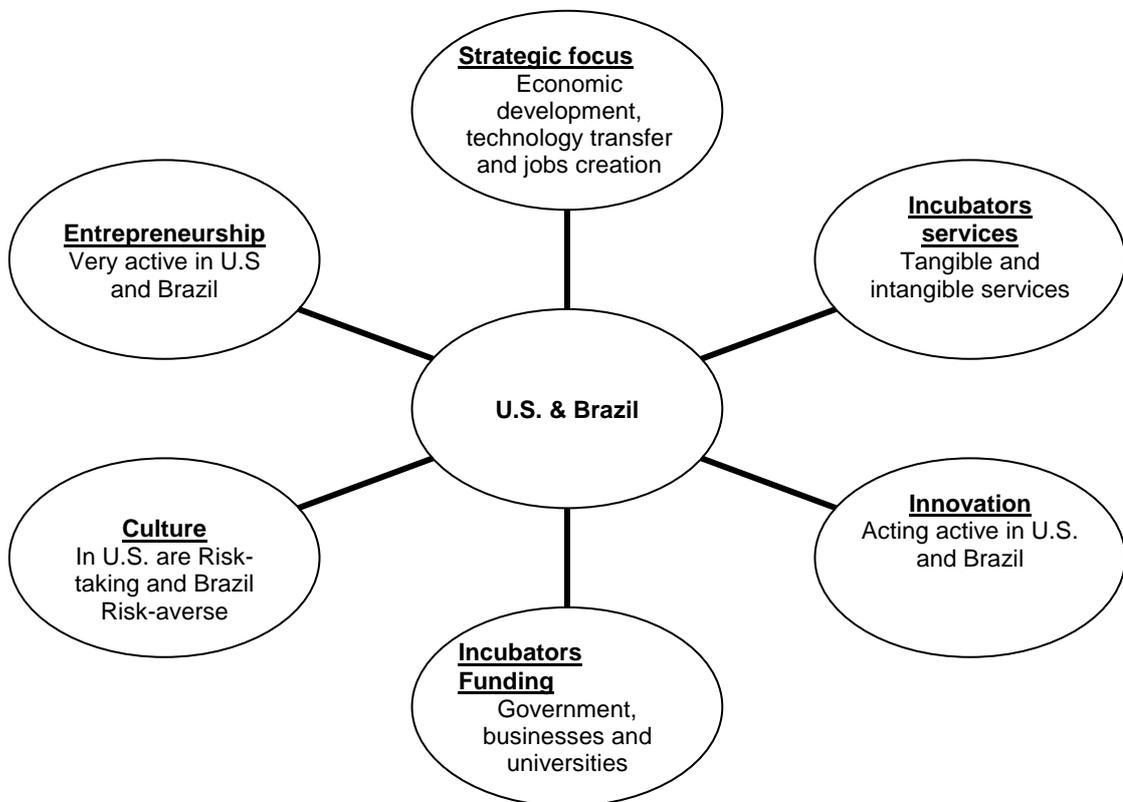
As can be seen in Table 1, both countries are presented with six key dimensions of 1) Strategic focus, 2) Entrepreneurship, 3) Incubators funding, 4) Incubators services, 5) Culture, and 6) Innovation. To compare the dimensions in the United States and Brazil, both of the countries focus on the mixed type: Transfer technology and Economic development. The fostering of Entrepreneurship and Innovation is extremely active in both the US and Brazil’s incubators. In addition, in the United States and Brazil, the stakeholders are mainly the government with respect to universities and businesses. It is also evident that some incubators offer both tangible and intangible services.

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Table 1: Summarizes the six key dimensional differences between the incubation approaches in the United States and Brazil.

Dimension	US	Brazil
1)	1- Mixed type	1-Mixed type
2) Strategic focus	2- Transfer technology 3- Economic development	2- Foster entrepreneurship 3-Jobs creation 4- Transfer of technology
3) Entrepreneurship	Very active	Very active
3) Incubators funding	1- Government 2- Business 3- Universities	1- Government 2- Business 3- Universities
4) Incubators services	Tangible and intangible	Tangible and intangible (weak)
5) Culture	Risk-taking	Risk-averse
6) Innovation	Very active	Very active

Figure 2: Summary of six key dimensions of incubation models in the United States and Brazil.



5. Summary and Conclusions

The following general conclusions can be drawn from the previous overview of the findings of six key dimensions of incubation models in the U.S. and Brazil. While the operation and sponsors of the Business Incubator may differ between countries, the objectives are highly similar as well as the methods used to reach these goals. Overall the strategic focus is to encourage economic development which leads to economic growth, the transfer of technology among businesses and, most importantly, job creation. With unemployment rates that are considered abnormally high in most developed countries, the use of Business Incubators is deemed warranted.

- 1- Strategic focus: economic development, technology transfer, jobs creation.
- 2- Entrepreneurship: very active in both the U.S. and Brazil.
- 3- Incubators funding: The stakeholders are mainly the government, businesses and universities.
- 4- Incubators services: both countries provide tangible and intangible services.
- 5- Culture: in U.S. is Risk-taking whereas Brazil is Risk-averse.
- 6- Innovation: very active in both the U.S. and Brazil.

It is attractive to note that in five of the six dimensions of incubator models, the United States and Brazil are remarkably similar. The lone difference is in the businessperson's view toward risk. In the U.S. entrepreneurs tend to be more risk-taking and far less risk adverse. This difference, which is likely due to differences in culture, may explain why growth from new businesses tends to be greater in the U.S. than in Brazil. While it is generally recognized that entrepreneurs must learn to live with risk in order to achieve success, new businesses in Brazil will benefit more from incubators if they perceive that the overall risk is minimized by seeking the services offered in the incubator environment.

It is further noted that both countries recognize the value of the input from Colleges and Universities. While many of the new technology breakthroughs originate on these campuses, it is the input from the Business Schools that provide the new entrepreneur with the tools needed for success. Most entrepreneurs, who are new to the commercialization of ideas process, generally lack the business acumen needed to be successful in the globally competitive environment that is now commonplace in the global economy. This gap can be filled by the business incubator when it brings together the resources necessary to increase the probability of success. These resources include the primary stakeholders: Government, the Business Community and Academia.

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