Determinant Factors for the Development of Entrepreneurial Activity: A Correlational Study

José E. Berrios Lugo and Maritza I. Espina

Universidad del Este

Abstract

Entrepreneurship is characterized by the transformation of innovation, knowledge, opportunities and ideas for creating new businesses to make profits and stimulate social and economic changes. According to literature, high levels of regional entrepreneurship are essential to unleash these changes. This research proposes an integrated model of determinant factors that stimulate entrepreneurial activity and economic development. This model consists of institutional, economic and social determinants. Data were collected through 189 questionnaires to nascent entrepreneurs. Significant correlations were found between the determinants model and entrepreneurial activity. The results of this research provide useful tools for designing public policies to stimulate entrepreneurship and economic development. It also provides researchers with a basis for further studies to determine the effectiveness of the integration of elements that encourage entrepreneurial activity.

Keywords: regional entrepreneurship, economic development, entrepreneurship, regional entrepreneurship, economic development, entrepreneurial activity

JEL codes: H70, L26, O10, O21, O31.

1. Introduction

The global economic environment has undergone radical changes over the past decades. This has been characterized by the segmentation of smaller companies. In addition, technological developments have intensified global competition and integrated regional economies (Acs, 1992). Also, small businesses have taken an active

* Corresponding author. Email: jberrios.34@suagm.edu

ISSN 0212-1867 / e-ISSN 1989-3558
© ESIC Editorial, ESIC Business & Marketing School
DOI: 10.7200/esicm.147.0451.4i
http://www.esic.edu/esicmarket
role in regional economic development. Research has found that small businesses play an important role in technological change and serve as agents of change and economic regeneration, creating new niche markets and creating jobs.

Economic regions have a unique set of stimulating activities leading to sustained economic development resources. The literature suggests that there are more favorable regions to pursue entrepreneurial activities than others (Mueller, 2004). Even, there are regions with similar entrepreneurial characteristics and exhibit different rates of development (Acs & Armington, 2003). In addition, the literature indicates that there is great interest from researchers for regional economic behavior and production factors.

Some researchers (Beugelsdijk & Noorderhaven, 2004) have pointed out that the lack of entrepreneurial activity may be the key factor for the failure of regional innovation systems. Therefore, it is essential the need to innovate and generate knowledge to find solutions to the economic weaknesses (Lamboy, 2005) that can result in economies with low growth rates, which, in turn, generate low rates of entrepreneurship and consequently an economic slowdown, as stated by Belso (2005). Studies (Amoros et al., 2012) have indicated the importance of self-employment initiatives in economic development, but in turn its limitation is also recognized in the impact on the growth of regional economies. To stimulate economic acceleration, there are certain determinants (Acs, 1992) which are essential in the process to generate entrepreneurial activity. While entrepreneurship is identified as the heart of national competitiveness (Porter, 1990), it is increasingly recognized as an important determinant of economic productivity and agent of change in economic markets (Acs, 1992). Therefore, it is important to identify the factors that encourage entrepreneurial activity.

Entrepreneurial activity can be identified within the companies, regions or organizations that identify business opportunities to generate wealth (George & Zahra, 2002). These environments are characterized by accepting controversial situations as normal, for ability to depersonalize politics, for a long-term emphasis on education in schools, the willingness to pay taxes to support public infrastructure, and the flexibility and diversity of community leaders (MacKenzie, 1992). Lack of an entrepreneurial environment can be felt regionally as a result of a shortage in innovation systems. Research has found evidence indicating that this culture is crucial in producing entrepreneurs (Amit et al., 1993).

There is a gap between public policies and strategies implemented to promote entrepreneurship in the regions. Lundstrom and Stevenson (2002) argued that policies that encourage entrepreneurship are lacking theoretical basis. Spencer and Gomez (2003) argue that depending on the level of entrepreneurial activity that is pursued, different theoretical frameworks that are independent from economic policies should be developed. However, policy makers lack the knowledge of the factors that are associated with high entrepreneurial activities and actions that governments can take to promote entrepreneurship in their economies. Therefore, it is determined that there is a need to investigate and understand the policies and practices that cultivate regional
entrepreneurship. For example, Busenitz and others (2000) suggest direct research to identify the composition of factors that help governments develop, implement and promote policies that encourage entrepreneurial activities in the long term.

Existing research and literature reviewed presented fragmented models to relate entrepreneurship to demographic, social and economic factors (Acs & Armington, 2002; Audretsch & Keilbach, 2005; Busenitz et al., 2000; Kostova, 1997; Spencer & Gomez, 2003; Van Stel et al., 2005). These research models identify and use a variety of determinants to shape the regional entrepreneurial activity. However, according to the literature reviewed, there is no integration of these factors to build a conceptual model of these determinants.

This research will present a model of determinants in which social, institutional and economic factors are considered in order to explore their relationship with the level of entrepreneurship at regional level. In turn, this research will be useful to identify policy tools that encourage accelerated levels of entrepreneurial activity in a region. Using this model, people that develop entrepreneurial policies can direct resources to the areas that are really receptive to these strategies.

2. Literature Review

Entrepreneurial activity is a key to economic development. A determining factor is one that increases (Acs & Armington, 2003) and directs entrepreneurial activity. It has been shown that entrepreneurial activity varies with the combination of resources, factors or elements that exist in the regions. The identification of the elements, that are crucial to entrepreneurial activity, leads us to present an integrated model for such activity. The literature reviewed in this research aims to identify the elements that stimulate entrepreneurship. Once these elements are identified a model of integration of these determinants and their relation to economic development is proposed.

The suggested model is composed of three groups of determinants (Acs & Armington, 2003). These factors are grouped into institutional, economic and social determinants.

2.1. Institutional Determinants

Institutional determinants composed of cognitive, regulatory and policy factors are proposed by Kostova (1997).

The cognitive factor includes the knowledge, skills and frameworks for categorizing and evaluating information possessed by individuals in a region. The ability to identify relevant information to manage the risk inherent in a business must be related to entrepreneurial activity. Knowledge of how to start a company could be dispersed in a region (Spencer & Gomez, 2003). The regulatory factor is constructed
with by the laws, regulations, aid programs and government policies to promote entrepreneurship, reducing risk to start a business, and the ease of obtaining resources and succeed. This factor specifies the responsibilities of owners of small businesses by assigning property rights (Gómez, 2003).

The regulatory factor is composed by the degree to which individuals in a country admired business and value the creative and innovative thinking (Busenitz, 2000). Kostova (1997) defines the normative component as social norms, values and knowledge of human behavior that are shared in a society by individuals. A positive regulatory environment does not provide enough momentum to promote entrepreneurial activities (Spencer & Gomez, 2003).

Government intervention can be classified into two types, directive and facilitative. The government in its management role defines the growth, productivity and competitiveness of the economy. It aims to achieve results with your deliberate intervention in the markets by applying incentives and controls, identifies opportunities and suggests the direction to be followed by companies. The directive approach is associated with the influence to change the competitive advantages of existing industries. The facilitative role aims to create environments for entrepreneurs to utilize their opportunities to provide law and order, public infrastructure, homes and social stability that cannot be provided by private markets (Yu, 1998).

Bjornskov & Foss (2006) studied regional regulatory aspects. In its investigation, they analyzed the government institutional framework to evaluate economic policies and institutional design and its impact on entrepreneurship. Their results indicate that there is a close relationship between determining the size of government and entrepreneurship. Government involvement in consumption, their transfers, subsidies, and tax policy is negatively related to entrepreneurship. Licht y Siegel (2005) showed that legal rules will affect the levels of entrepreneurial activity and suggest that these shortcomings can be partly overcome by using social networks to facilitate balance in the resources.

The government acts as an entrepreneur when their policies or facilitative directives create competitive advantages for a country. The intersection of government and entrepreneurship can lead the economy to achieve great things (Yu, 1998). But on the other hand, a high government intervention of public funding reduces incentives to pursue entrepreneurial activities (Bjornskov & Foss, 2006). The waste of public resources to permanently hold jobs that do not add value to production exhausts the capacity of the economy to compete in markets that do not respect borders (Gutiérrez, 1996).

Institutional determinants were constructed with the laws and rules that promote entrepreneurship. Also incorporates the government and its policies (Audretsch & Keilbach, 2004a; Bjornskov & Foss, 2006; Kostova, 1997; Kreft & Sobel, 2005; Licht & Siegel, 2005; Yu, 1998; Zahra & Hansen, 2000). The government factor depends on the degree of involvement and government support for entrepreneurship. The political factor is composed by the size of government, spending, taxes, regulations and legal framework.
2.2. Economic Determinants

Amoros et al. (2012) suggest that public policy for enterprise development should be designed to support dynamic business sectors rather than industries in a region. Liao et al. (2001) developed a model to determine the growth of an entrepreneurial behavior. Their behavior model is based on macro environment and micro environment characteristics. Macro factors relate to public policy, market infrastructure, financial markets and technological developments. The micro environment factors include internal factors such as motivations and aspirations of entrepreneurs, which are critical for understanding the growth of enterprises.

Begley et al. (2005) shaped the relationship between the political and economic dimensions of the environment and entrepreneurship. The political-economic dimensions are constituted by the economic, the political, the market, and the social infrastructure that determined the interest of entrepreneurial activity.

Some economists (Audretsch & Keilbach, 2004b) have identified physical capital, human capital and knowledge capital as factors stimulating economic development; they also introduced a fourth factor, the concept of entrepreneurial capital. Entrepreneurial capital comprises all the factors and forces in society that lead to the creation of companies. It is the provision of a region of favorable factors to entrepreneurship. Their model found there is a positive relationship to economic growth with the regional per capita income. This same concept was applied to investigate its relationship with regional labor productivity. The results suggest that venture capital has a large positive impact on regional labor productivity (Audretsch & Keilbach, 2005). Spencer and Gomez (2003) see self-employment as the simplest form of entrepreneurship. Acs (1992) stated that the growth rates of self-employment can be associated with increases in entrepreneurial activity, an increase in diversity and high levels of human capital. The government and its policies can affect self-employment in a region. In regions with generous “welfare” benefits, most individuals tend not to join the workforce and become part of entrepreneurship (Bygrave & Cowling, 2004).

Hayton et al. (2002) suggest a causal role of economic factors in creating a climate of entrepreneurship. The economic determinants are based on technology, financial markets and market structure. To these factors we have to add financial capital in terms of access to capital (Liao et al., 2001), the level of research and development based on the relationship of technology and development (Beugelsdijk et al., 2002; Kirchhoff et al., 2002; Lamboy, 2005), professional services and business support infrastructure and physical infrastructure in terms of accessibility of profits for new or developing businesses (Chrisman et al., 2002).

2.3. Social Determinants

Lee et al. (2004) explored the connection between regional social, human capital and the creation of new businesses. Their model is based on the idea that diversity
and creativity have a positive social impact on entrepreneurial activity. The research suggests that creativity and diversity are critical resources to stimulate entrepreneurship. They also noted that it is important to pay more attention to the habitat and social context in which entrepreneurial activity takes place. Regional studies, López et al. (2006), found a strong influence among socio cultural factors in deciding whether to create a company. Other investigations (Krueger & Brazeal, 1994) have found that in a community setting, the political and social support by entrepreneurial leaders and team spirit are critical to foster entrepreneurship. It has also been demonstrated (Greve & Salaff, 2003) that social relationships play an important role in the process of establishing a company. It is during the planning phase when the support of social networks was felt to be necessary. In the first and last stages, this impact is significantly reduced.

Social factors in this model are composed by education and culture (Acs & Armington, 2003; Acs et al., 2006; Armington & Acs, 2002; Greve & Salaff, 2003; Kirchhoff et al., 2002; Kostova, 1997). Education is analyzed through the number of trainees intending to start a business (Beugelsdijk & Noorderhaven, 2004). Culture is analyzed through the innovative capacity and the promotion of entrepreneurship in a region.

Entrepreneurial activity is defined by Bosma and Harding (2006), as the number of people who are in the process of starting a business or who are already owners of a new company. The elements of entrepreneurship are identified markets for goods and services, opportunities, business environment and innovation.

This model proposes that there is a statistically significant relationship between entrepreneurial activity and economic development. Economic development is defined as the increase in the gross national product.
3. Methodology

The purpose of this research was to integrate a model of determining factors that encourage entrepreneurial activity in a region. Quantitative data were collected using questionnaires developed using the factors for determining the proposed relationships using correlation analysis and multiple regression analysis. To have the intention to establish a company or to be in the process of developing a business were identified as the main characteristic for participants. It was identified as the main characteristic for the participants, to had formal intention to establish a company or were in the process of developing a business. The population was identified in a government program to promote the establishment of new businesses and business development.

Using a probabilistic method, 189 participants meeting the requirement of the research were interviewed and were willing to answer the questionnaire. Of the sample, 28 percent were current employers and 72 percent were individuals intending to establish a company or were already in the process. Of the 72 percent who intended shortly to set up a company, 33.6 percent were unemployed at the time of administering the questionnaire. The dominant industries when establishing businesses were
the “professional services” with 30.7 percent, followed by industry “retail” with 16.4 percent and then by industry “art, entertainment and recreation” with a 10.1 percent. The industry had the lowest percentage was “computer or communications” with a 0.5 percent selection.

4. Results

This study aimed to determine the relationship between the institutional, economic and social determinants of entrepreneurial activity. A series of statistical tests of correlation and multiple regressions was performed to determine the nature of the linear relationship between these determinants and entrepreneurship. The results are presented in Tables 1 and 2. These coefficients indicate a moderate positive correlation to entrepreneurial activity. The highest correlation coefficient is the social determinant. This coefficient is \( r = 0.597 \), followed by economic and institutional determinant. The interaction of the determinants model with entrepreneurship reflects a coefficient \( R = 0.676 \); this indicates a positive correlation between the observed values and entrepreneurship. The correlation coefficient for this model is 0.456. This model explains 45.6 percent of the variation in entrepreneurial activity. If new determinants are introduced to the model, this would affect the entrepreneurial activity in a 0.448. The interaction of the determinants of the model has to be significant with respect to entrepreneurship.

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<tr>
<td>Entrepreneurial Activity</td>
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<td>0.542*</td>
<td>0.519*</td>
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<tr>
<td>Social Determinant</td>
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<td>1</td>
<td>0.496*</td>
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<tr>
<td>Economic Determinant</td>
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<tr>
<td>Institutional Determinant</td>
<td>0.519*</td>
<td>0.517*</td>
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Note: \( n = 189, \) * \( p < .05 \)

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<tr>
<th>R</th>
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<td>0.676</td>
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The model presented determinants of entrepreneurial activity values indicating a moderate positive relationship. This relationship, which although positive is not the strongest, predicts the relationship between the determinants and entrepreneurship.

Taking the model as a whole and not considering the interaction of the factors that make each determinant, the factor of greater magnitude is the social determinant. This determinant is analyzed in terms of the number of people trained with intent to start a business. These results are consistent with the research by Lee et al. (2004), in which they conclude that the elements of social infrastructure work together to increase regional capacity to generate entrepreneurial activity. The second significant element was the economic determinant followed by the institutional one. The results of this model are consistent with previous research (Audretsch, 2004), which suggest that the development policies of entrepreneurship should focus more on the process of change in environmental conditions rather than the business unit level. The elements that composed the institutional determinant showed significant levels with respect to the relationship with entrepreneurial activity. This determinant is composed of government policies and programs. Both factors of this determinant predict and explain changes in entrepreneurial activity, but not the greatest strength of the model. The most influential institutional determinant for entrepreneurship was government policy. Some research recommends (Kreft & Sobel, 2005) that to stimulate entrepreneurial activity the government should focus on creating an environment of economic freedom instead of bringing foreign capital into an area. Government programs are the second element of this determinant.

The components of economic determinant factors had a positive relationship with entrepreneurial activity. The economic determinant was composed by finance capital, research and development, commercial and professional infrastructure, and physical infrastructure.

Three main elements within the economic determinant are the most influential entrepreneurial activity: research and development, commercial and professional infrastructure, and physical infrastructure. The element with less relation was financial capital. Financial capital is internationally renowned as one of the main obstacles to establishing business factors (Thurik & Grilo, 2005). Research and development was one of the three factors of economic determinant of greater connection with entrepreneurial activity. The results of the research and development are consistent with results obtained by other researchers. These results circle around the opportunities created by research and development (Audretsch & Keilbach, 1990).

Commercial and professional infrastructure was another element that shows strong relationship with entrepreneurial activity. However, a statistically significant factor, the participants indicated the high quality and availability of professional services, but noted its high cost. These findings are consistent with the results of the importance of professional and commercial infrastructure in the literature (Fairlie, 2006). The physical infrastructure is the third element of strong relationship with entrepreneurial activity.
The factors of the social determinant presented are the most significant relationships of the model. This consists of determining factors of education and culture.

In the interaction of the factors with respect to entrepreneurship, education had the lowest ratio.

Education was measured according to the teaching of need for achievement, self-sufficiency and personal initiative. Some studies (Kristiansen & Indarti, 2004) have found that these elements of education are significant with respect to entrepreneurship. There was a lot of disagreement among participants concerning this aspect. Some researchers (Lena & Wong, 2003) recommend that academic standards should invest its efforts in changing the attitudes and mindset of their target groups and should also develop incentives for people who are genuinely interested in devoting their time to education in entrepreneurship. Culture is the most significant element of the social determinants model. Culture is seen by some researchers (Amit et al., 1993) as the determining factor in entrepreneurial activity and suggest that there should be harmony between the ideological constructs and economic behavior. There is consensus in the literature (Krueger & Brazeal, 1994) on the impact of advertising business success and perception of entrepreneurs in the national culture. This has a positive impact on entrepreneurial activity, since it is a culture that supports entrepreneurship, combining structures, reward systems and support mechanisms that collectively reinforce the norms and values aimed at entrepreneurship (Krueger & Brazeal, 1994).

5. Conclusions

After developing the necessary analyses for each investigated element, we conclude that there is a relationship between the proposed model and entrepreneurial activity. The results of the statistical analysis indicate that there is a relationship between entrepreneurial activity and institutional, economic and social determinants. The most significant determinants in the model were social factors. These determinants were composed of cultural and educational elements.

The model presented values that indicate a moderate positive relationship. This relationship is positive although not the strongest, but according to the coefficients of determination and regression, it predicts the relationship between the determinants and entrepreneurship. The findings of this study suggest that continued research and practical utility of the factors that encourage entrepreneurship be investigated to expand the elements that influence entrepreneurship in economic development and as a result, establish an integrated business development policy. It also suggests courses of action for governments to recommend an active role to encourage the establishment and protection of regional companies. It is recommended to those responsible for designing corporate policies to be more informed of the relevant elements for entrepreneurs, and integrate academic faculty in the design and implementation of public and corporate policies. It is also recommend-
ed to promote creativity, self-reliance and personal initiative on education and direct the national culture to support business success and encourage risk-taking, innovation and creativity.

Study limitations are the possibility that there may be more factors that are determinants or in connection with entrepreneurial activity since the model only looked at three elements. This opens new avenues of research to identify and expand determinants. Another limitation is that the cultural factor was divided into two components. According to the literature review, it is a multidimensional issue of great academic interest.

References


Notes on Contributors

Name: José E. Berríos Lugo, DBA  
Position: Catedrático Asociado  
School / Faculty: IEN Business School  
University: Universidad del Este  
Address: PO Box 2010. Carolina, PR 00984-2010  
Telephone: 787-257-7373 Ext. 3178  
Email: jberrios34@suagm.edu

Name: Maritza I. Espina, Ph.D.  
Position: Decana y Catedrática  
School / Faculty: IEN Business School  
University: Universidad del Este  
Address: PO Box 2010. Carolina, PR 00984-2010  
Telephone: 787-257-7373 Ext. 3178  
Email: mespina@suagm.edu