



VIE Project: Cultural values and socioeconomic factors as determinants of entrepreneurial intentions

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Abstract:

This paper describes a research project currently being developed by the authors. It aims to analyse the role played by psychosocial, cultural and socioeconomic factors in shaping the entrepreneurial intention. Survey methods will be used on a population of potential entrepreneurs (having not yet performed actual entrepreneurial behaviours). In this sense, undergraduate students and individuals contacting business support centres will be considered as part of the sample. We expect to get a clearer understanding of the psychosocial elements, socioeconomic factors and cultural values affecting the venture-creation decision. The results would be important to policy makers (showing them what to encourage), to practitioners (what to do better), and to researchers (what to clarify).

1. Introduction

The objectives of the different approaches to entrepreneurship can be summarised in the desire to look for an explanation of why, how, when or where entrepreneurs discover and exploit opportunities which promote the development process (Shane & Venkataraman, 2000). In this context of analysis, we can point to two contrasting elements. On the one hand, there is broad agreement among researchers to consider entrepreneurship and the promotion of dynamic entrepreneurs are a driving force for the development process of nations and regions (Audretsch, 2002; Audretsch, Keilbach & Lehmann, 2006; Guzman & Santos, 2001; Westall, Ramsden & Foley, 2000). In this way, in recent decades, it is not surprising that governments and international agencies have aimed at fostering entrepreneurship as part of their policy proposals (European Commission, 2003; OECD, 1998). On the other hand, although there is an extensive literature on the relevant variables affecting entrepreneurship (Parker, 2004; Reynolds, 1997), there still is a considerable lack of knowledge regarding the more qualitative factors that influence the decision to start up; i.e. the entrepreneurial intention of individuals in a territory.

The consideration of entrepreneurship as the result of a cognitive process is widely shared today (Baron, 2004). Several researchers have pointed out that the decision to become an entrepreneur is a complex one, and it is the result of intricate mental processes (Shaver & Scott, 1991). For this reason, psychological models are being applied to analyse the venture-creation





decision (Baum, Frese & Baron, 2007). In this sense, the theory of planned behaviour (Ajzen, 1991) has been frequently applied in empirical analysis of the mental process leading to firm creation (Fayolle, Gailly & Lassas-Clerc, 2006; Kolvereid, 1996; Krueger, Reilly & Carsrud, 2000).

However, there is still much to be said regarding the way in which those individual perceptions are formed. Some authors have argued that social values and beliefs regarding entrepreneurship will affect the motivational antecedents of intention (Davidsson & Honig, 2003; Liñán & Santos, 2007). Cultural values may be a relevant influence on work-related attitudes (Hofstede, 1980). However, little research has yet empirically studied the effects of culture on entrepreneurial intentions in different regions.

The analysis of culture's influence on entrepreneurship has received increasing attention recently. Inglehart (1997) defines culture as the set of basic common values which contributes to shaping people's behaviour in a society. Hofstede's cultural dimensions (Hofstede, 1980, 1991, 2003) have been used as a reference in most research about the influence of culture on entrepreneurship (Hayton, George & Zahra, 2002; Mcgrath & MacMillan, 1992; Mitchell, Smith, Seawright & Morse, 2000; S. L. Mueller & Thomas, 2001; S. L. Mueller, Thomas & Jaeger, 2002; Shane, Kolvereid & Westhead, 1991).

Nevertheless, most of this research has tended to identify culture with nation. A number of changes (increasing development of technology and information systems, globalization of markets and migratory flows) have modified this traditional identification (García-Cabrera & García-Soto, 2008). The existence of intra-national cultural differences should be acknowledged (Sackmann & Phillips, 2004). For this reason, regional variations in cultural values may contribute to explaining differences in entrepreneurship levels (Davidsson, 1995; Davidsson & Wiklund, 1997).

Similarly, the specific effect of each cultural characteristic on entrepreneurship is far from clear. Hofstede et al. (2004) consider two alternative forms in which this influence may be exercised. A positive aggregate effect would take place when culture shapes economic and social institutions, making them more favourable towards the entrepreneurial activity. Thus, 'integrated' individuals may find it easier to become entrepreneurs. Where culture is relatively unfavourable towards entrepreneurship, 'dissatisfied' individuals would seek personal realization through self-employment.

Based on these considerations, the VIE project seeks to analyse the specific influence of regional cultural values on the motivational antecedents of entrepreneurial intention in Spain. This will help explain why entrepreneurship levels differ between regions. To do this, it will include socioeconomic elements as moderator and/or control variables.

The project has been designed by a group of researchers from University of Seville and UNED, with a total duration of three years starting from January 2009. It is financed by the





regional government of Andalusia through a grant from the Department of Innovation, Science and Enterprise (grant project number: P08-SEJ-03542). The potential contribution of the project to a better understanding of the factors that may explain regional variations in entrepreneurial activity was one of the main elements considered by the funding body when they chose to approve a grant for it.

This paper aims at putting forward the main aspects of the project. It is organised in five sections, including this introduction. The theoretical framework in which the project is based will be described in the following section. Section three details the aims and objectives of the project. The organization of activities is considered in section four. The paper ends with a few final considerations.

2. Theoretical framework

The VIE project, as mentioned above, is based on two theoretical concepts which, though highly relevant for the effective study of business creation processes, are based on psychological and sociological literatures. Thus, at the individual or psychological level, the intention to perform entrepreneurial behaviours is considered as a key element. Nevertheless, the person's beliefs, attitudes and intentions are the result of socialization processes, and thus are clearly influenced by the environment in which they are embedded.

Entrepreneurial intention

Starting a new venture is, in the first place, an individual's personal decision. This is so obvious that it is quite often forgotten. Most research in entrepreneurship concentrates on analysing the firm-creation process once the decision to create has already been taken, completely overlooking the internal process that leads people to that decision. From this viewpoint, the important thing is not which particular individuals will create a new firm. It is understood that at least some of them will take that decision and start their ventures (Liñán, 2007). Taken to the extreme, ecological approaches to entrepreneurship could be an example of this view (Aldrich & Wiedenmayer, 1993).

The publication of the Green Paper Entrepreneurship in Europe (European Commission, 2003) raised an important question regarding this subject: How to improve people's inclination toward developing new entrepreneurial initiatives. Approaching entrepreneurship as an attitude, the Green Paper broadens the range of possible policy actions, going beyond the mere elimination of barriers that obstruct business creation, development and growth. It specifically seeks to achieve that a higher proportion of people want to become entrepreneurs and get ready for it.

According to this perspective, since the 1990's a number of research works have stressed the importance of including cognitive variables together with economic, managerial, psychological





and sociological aspects when studying the entrepreneurial decision (Baron, 2004; Baum et al., 2007; Gartner, Shaver, Gatewood & Katz, 1994; Shane & Venkataraman, 2000; Shaver & Scott, 1991).

Since the decision to become an entrepreneur may be plausibly considered as voluntary and conscious (Krueger et al., 2000), it seems reasonable to analyse how that decision is taken. In this sense, the entrepreneurial intention would be a previous and determinant element towards performing entrepreneurial behaviours (Kolvereid, 1996). Keeping in mind that the creation of a new company requires time, involving both considerable planning and a high degree of cognitive processing, the entrepreneurial behaviour could be considered as a type of planned behaviour for which the intention models are ideally convenient (Bird, 1988; Katz, 1988; Krueger & Carsrud, 1993; Krueger et al., 2000).

To date, many studies have been performed on the entrepreneurial intention, based on a large number of theoretical models, such as the Entrepreneurial Event Model (Shapero, 1975; Shapero & Sokol, 1982), an interactional Model of Implementing Entrepreneurial Ideas (Bird, 1988), the Maximization of the Expected Utility (Douglas & Shepherd, 2002), and the Theory of Planned Behavior (TPB; Ajzen, 1991).

The TPB has become the most frequently used theoretical framework in recent studies of the entrepreneurial intention (Audet, 2004; Autio, Keeley, Klofsten, Parker & Hay, 2001; Chen, Greene & Crick, 1998; Erikson, 1999; Fayolle & DeGeorge, 2006; Fayolle et al., 2006; Frese, van Gelderen & Ombach, 2000; Kickul & Zaper, 2000; Kolvereid, 1996; Kolvereid & Isaksen, 2006; Krueger, 1993, 2007; Krueger & Brazeal, 1994; Krueger & Carsrud, 1993; Krueger et al., 2000; S. H. Lee & Wong, 2004; Moriano, Palací & Morales, 2007; Peterman & Kennedy, 2003; Reitan, 1998; Tkachev & Kolvereid, 1999; Veciana, Aponte & Urbano, 2005; Zhao, Hills & Siebert, 2005). The general picture that emerges from these studies is that the intention to create a firm is influenced by different beliefs that could be grouped in three categories (Ajzen, 1991, 2001):

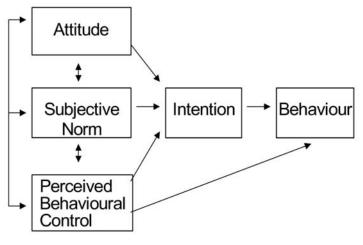
- a) *Personal attitudes toward the enterprise-creation behaviour*. It refers to whether people have a positive or negative perception about this behaviour (most importantly attractiveness of entrepreneurship). Thus, a high positive attitude towards creating an enterprise will lead to a higher intention to do it.
- b) *Subjective norms*. It consists on the perceived social pressure to carry out -or notentrepreneurial behaviours. This concept includes parental role modelling, parental support, opinions of important others. A more positive subjective norm about becoming an entrepreneur will lead to a higher intention to do it.
- c) *Perceived control (self-efficacy)*. Perception about the capability to successfully execute specific firm-creation behaviours. A high sense of self-efficacy will determine a higher probability to take the decision to start an entrepreneurial process. These perceived





personal beliefs would be the most important predictors of entrepreneurial intentions. Furthermore, according to the TPB, intention and perceived behavioural control are the sole predictors of real behaviour, given that this behaviour is under actual control of the individual who is trying to perform it (see Figure 1).

Figure 1. The Theory of Planned Behaviour



Source: Ajzen (1991)

The fundamental difference between TPB and the previously mentioned models is the role of subjective norm, i.e. the individual's personal estimate of the social pressure to act according to or against the rigours of entrepreneurial behaviour (Ajzen, 1991). This pressure can become a trigger or a barrier to the development of an entrepreneurial career, depending on the social environment and its influence on people's beliefs.

Environment and Entrepreneurship

It is widely accepted by researchers that the environment has an important influence on the entrepreneur and his/her project (Ajzen, 1991; Gartner, 1989; Timmons, 1989). For this reason, Bygrave & Minniti (2000) stress the need to focus not only on the economic context, but also on the social and cultural context. Figure 2 has been drawn to represent the most relevant environmental variables to be considered in the venture creation process:

• Social Capital. It refers to the social relationships that people have. The characteristics and the intensity of these relationships can determine people's intention towards creating an enterprise (Johannisson, 1991; Johannisson, Ramirez-Pasillas & Karlsson, 2002; Liñán & Santos, 2007). In this sense, Naphiet & Ghoshal (1998), consider the cognitive





dimension of social capital as very important. It helps individuals to make sense of information and classify it into perceptual categories. In particular, Cognitive Social Capital provides assets in the way of shared languages or vocabulary, and shared narratives, which in turn would affect perceptions and intention towards entrepreneurship (R. Lee & Jones, 2008).

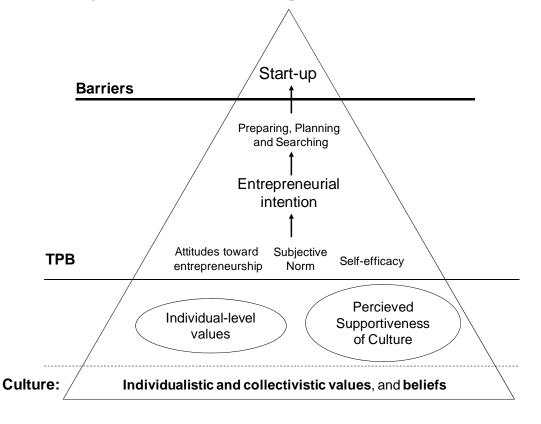


Figure 2. Determinants of Entrepreneurial Behaviour

• *Cultural values*. Four values have been identified as potentially serving to characterise different cultures (Hofstede, 1980, 1991): power distance, uncertainty avoidance, individualism-collectivism, masculinity-feminity. Mcgrath, MacMillan, & Scheinberg (1992) argue that individual entrepreneurs would tend to exhibit certain levels of those dimensions: high power-distance (PDI+), low uncertainty-avoidance (UAV-), high individualism (IND+) and high masculinity (MAS+). Busenitz & Lau (1996) transfer these assumptions to the national level, suggesting that cultures high on those values would favour the entrepreneurial activity of its members. Mueller et al. (2002) share this





view, except for the PDI index. Thus, low power distance (PDI–) cultures would favour entrepreneurship (Liñán & Chen, 2009).

Individualistic societies emphasise values that serve the self, such as hedonism, independence or achievement; whereas collectivism emphasises values that serve the ingroup by subordinating personal goals for the sake of preserving in-group integrity, interdependence of members and harmonious relationships (Triandis, 1995; Triandis, Bontempo, Villareal, Asai & Lucca, 1988). Morris, David and Allen (1994) suggested that individualistic cultures bring a greater sense of personal responsibility to establish innovative change and performance outcomes. On the contrary, they argued that a strong collectivistic cultural orientation may not create a favourable condition for entrepreneurship because the collectivistic societies. Davidsson and Wiklund (1997) found a positive relationship across six different regions in Sweden between the new firm rates and certain values associated with individualistic culture such as autonomy, change-orientation and competitiveness.

• *Individual-level values.* According to Schwartz (1990), values shape the individual's motivational goals. He proposes a circular structure of values (see Figure 3) representing the dynamic relationships between values according to principles of compatibility and logical contradiction. Following this circular structure, the pursuit of adjacent values (e.g., power and achievement, or stimulation and self-direction) is compatible, whilst the pursuit of opposing values (e.g., power and universalism) would generate conflict (Schwartz, 1999; Schwartz, Melech, Lehmann, Burgess & Harris, 2001). The ten types of values proposed by Schwartz would be grouped within the dimensions of individualism and collectivism. Thus, individualists would emphasise power, achievement, hedonism, stimulation and self-direction, whilst collectivists would tend to give more importance to benevolence, tradition and conformity. Finally, universalism and security would be a mixed type of values that could be found in either of the two dimensions.

As regards the study of entrepreneurs' values, little research has been done up to now. Nevertheless, the few studies that have been carried out indicate a significant relationship between certain values of an individualistic nature and entrepreneurial behaviour. Thus, Kecharananta and Baker (1999) found significant differences between the values of Thai entrepreneurs and company employees using the SYMLOG instrument (Polley, Hare & Stone, 1988). Specifically, entrepreneurs scored higher in individualism, independence and resistance to authority. Similarly, in an exploratory study carried out in Spain, Moriano, Palací and Trejo (2001) observed a tendency for entrepreneurs to be inspired by individualistic values, such as hedonism (i.e. pleasure and enjoying life).





Security Power Conformity Achievementn Tradition Hedonism Benevolence Stimulation Universalism Selfdirection

Figure 3. Motivational structure of the value system

3. Project objectives

The study of the relevant variables identified above will have to be carried out through survey methods. In this sense, the VIE project will develop a questionnaire to study values, motivations and intentions of potential entrepreneurs. Two distinctive groups of potential entrepreneurs will be used. Firstly, recent graduates have been shown to exhibit higher rates of entrepreneurial activity (Reynolds, Bygrave, Autio & Hay, 2002; Reynolds, Carter, Gartner & Greene, 2004). For this reason, last-year university students could be expected to exhibit higher entrepreneurial potential (Liñán & Chen, 2009).

Secondly, a wide range of start-up support agencies have been created recently at the national, regional and local level. Individuals approaching these agencies would be showing an explicit interest in starting a venture and, therefore, could be considered as potential entrepreneurs (Thompson, 2009). It may be argued, however, that seeking information is already a specific firm-creation activity and those performing it should be considered as nascent entrepreneurs (Honig & Karlsson, 2004; P. Mueller, 2006). Conversely, other authors argue that a clear limit between potential and nascent entrepreneurs cannot be established, since they are both part of a continuous process (Shook, Priem & Mcgee, 2003). Thus, a first visit to these agencies would imply a higher potential, but could not be considered as nascency. According to Brännback,

Source: Schwartz (1990)





Krueger, Carsrud, Kickul & Elfving (2007), it would reflect an "implementation" intention, as opposed to a more general "goal" intention.

The survey on these two groups of potential entrepreneurs will be the central element of the VIE project. As has been mentioned above, the general objective of this project is to analyze the role of psychosocial, cultural and socioeconomic factors on the configuration of the individuals' entrepreneurial intentions. This overall objective will be achieved, in turn, through the achievement of five specific objectives:

1. To analyze regional differences in Spain regarding the entrepreneurial intention of their potential entrepreneurs.

Official statistics and results from the Global Entrepreneurship Monitor for Spain show the existence of significant disparities in entrepreneurial-population rates by region (De la Vega, Coduras, Cruz & Justo, 2007). However, although the GEM questionnaire includes some cognitive elements (Reynolds et al., 2005), it does not allow for a comprehensive analysis of perceptual variables, since it does not include all the relevant variables considered in the literature (Ajzen, 1991; Kolvereid & Isaksen, 2006; Krueger et al., 2000).

Therefore, the samples obtained from the various regions in Spain will serve to perform a first comprehensive study on the levels of entrepreneurial intention in each region, as well as on the specific configuration of that intention. These results will be compared with other data from different sources, such as the percentage of venture start-ups in each region, or the level of use of business support services.

2. To study the role played by individual beliefs and values in shaping the entrepreneurial intention.

The VIE questionnaire will include one or more of the most generally accepted scales measuring beliefs and values, such as the Portrait Value Questionnaire (Schwartz, 1999). At the individual level, they constitute the "reference framework" for evaluating situations and actions. People will have their own set of values, and this will allow studying their influence on individual entrepreneurial perceptions and intentions.

Based on the theory, it is expected that individualistic values will be positively associated with entrepreneurial intention. The VIE project will serve to confirm this result. Additionally, it will also allow to better understand which individual values affect each of the motivational antecedents of intention, thus explaining the mechanisms through which values affect intention.





3. To examine the influence exerted by regional socio-economic variables on the entrepreneurial intention.

There is a wide body of literature analysing the influence of socioeconomic variables on startup behaviour. The U-shaped relationship between economic development level and entrepreneurial activity is one example (Wennekers, van Stel, Thurik & Reynolds, 2005). Similarly, unemployment levels, employment rate, productive structure and specialization, among other variables, may have an effect on start-ups attempted (Reynolds, 1997). Nevertheless, the extent to which these macro-level variables affect start-ups directly (reducing opportunities, raising barriers...), or through their effect on intentions (reducing people willingness and self-perceived capacity to start a venture) remains to be established. In this sense, the VIE project could shed some relevant light on this issue.

Socio-economic variables included in the analysis may also serve as control variables to test the effect of culture on entrepreneurial intention. As Hofstede et al. (2004) suggest, it is not clear whether cultures prompts "integrated" or "dissatisfied" individuals to start their businesses. Liñán & Chen (2009) suggest that it may depend on the economic circumstances. By comparing different regions with different socioeconomic situations, the project may help solve this question.

In Spain, official statistics show the existence of significant regional disparities in income levels, economic growth rates, employment and unemployment, education, age structure, and so on. Surveying different regions, it is possible to analyse how the levels of these variables influence the perceptions and intentions towards entrepreneurship.

4. To analyze the relationship between regional culture and the level of entrepreneurial activity.

It has been justified above that the social and cultural environment in which individuals live may exert a relevant influence on their decisions and behaviours. Since culture has been seen as the "collective programming of the mind" (Hofstede, 1991), the aggregation of individual values would represent the regional cultural values prevalent in each region.

This characterization of each region's culture will be used to help explain differences in perceptions and intentions. Besides, the level of congruence between individual values and regional culture and its effect on start-up intention will also be assessed. Additionally, according to official records or information provided by the regional GEM reports, there are significant differences in start-up rates across Spanish regions. In this sense, the effect of regional culture on actual regional rates of entrepreneurial activity will also be assessed.





5. To lay the foundations for the future creation of a data panel and an observatory of *entrepreneurial intentions in Spain.*

The database obtained will be sufficiently large to allow a very detailed cross-sectional study. However, a longitudinal study is needed to analyse the transition from intention to action. The timeframe of this project does not allow for such a study. However, the questionnaire, fieldwork, and processing of information will be designed and carried out so as to allow the conduction of further studies on these subjects. In particular, it envisages the creation of a web portal that will serve to give visibility to the project and its results. Therefore, it will be feasible to use this portal for the publication and dissemination of regular data on entrepreneurial intention in the various Spanish regions. Thus, the effective implementation of this set of data will allow the dissemination of data as an observatory, making such information available to scholars, policy makers and both potential and real entrepreneurs.

4. Organization of activities

The VIE project is organized around three main phases: questionnaire development, data collection, and data analysis and results. We anticipate that the project's first phase (preparation of the questionnaire, identifying the target population and sample selection) will extend during the first year of the study. The sample should consist of what the researchers in this area called "potential entrepreneurs". Tasks 2, 3, 4, 5 & 6 in Table 1 will be included in this first stage of the project. In particular, a number of national experts in entrepreneurship research will be consulted to try to guarantee the content validity of the scales used, as well as the coherence of the full instrument.

Subsequently, we will focus on obtaining and recording data. These tasks will be developed mainly throughout the second year. A first pilot questionnaire will be carried out to check the questionnaire. Within this phase, we will select the regions where the fieldwork will be carried out, based on their cultural and socioeconomic characteristics. To this end, the fundamental criterion is the existence of differential characteristics that are potentially interesting for the project. Tasks 7, 8 & 9 are included in this second phase.

Finally, the third year of the project will be devoted to the analysis and dissemination of results obtained. This project gives great importance to the diffusion of results. It includes, of course, the preparation of articles for international journals, and communications to international prestigious conferences. However, the vocation of the VIE project is to have a longer-term impact than just the three years of its implementation. For this reason, it also includes the design and organization of training activities, based on the results obtained. In particular, the organization of an intensive training seminar for doctoral students from various European universities is included as part of the dissemination activities. Additionally, the project will launch a web portal to publicise its results, which will also serve as a resource available to





researcher in the area. This web portal aims at becoming the foundation of the observatory of entrepreneurial intentions that would be developed after the project itself is finished.

Activities/Tasks	First year				Second year				Third year			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q 4	Q1	Q2	Q3	Q4
1. Project management: coordination of project team and activities, budget management	x	X	X	X	X	X	X	X	X	X	X	X
2. Literature review	Х											
3. Questionnaire construction and / or adaption of existing questionnaires to project characteristics		X										
4. Consultation with experts about the appropriateness and applicability of the developed questionnaire			X									
5. Preparation of the final questionnaire				Х								
6. Identification of the target population: contact entrepreneurs' support centres and university career advisory centres				X								
7. Pilot study on a sample of potential entrepreneurs. Analysis of responses and possible revision of the questionnaire.					X							
8. Data collection. Fieldwork on representative samples in different regions						X	X					
9. Data recording and depuration							Х	Х				
10. Analysis of results. Statistical analysis according to theoretical model. Interpretation of results								X	X	X		
11. Dissemination of results. Articles and communications, International training seminar, web portal				X		X		X		X	X	X
12. Coordination meetings	Х			Х				Х			Х	
13. Assessment and monitoring. Preparation of interim and final reports				X	X			X	X			X

Table 1. Project Schedule

5. Final considerations

This paper has aimed to put forward the objectives, theoretical framework and methodology of an undergoing project studying the influence of regional cultural differences on entrepreneurial intentions in Spain. This project expects to be able to delve into the psychosocial, socioeconomic and cultural conditions shaping entrepreneurial intentions, and thus contribute to the growing





literature on this topic which has been reviewed in this paper. Theory suggests that cultural values contribute to shaping individual preferences and attitudes, which in turn determine intention. Similarly, the degree of compatibility between individuals' values and those prevalent in their region may be relevant in determining the courses of action followed. Finally, the socioeconomic situation in the person's environment would also be relevant in explaining not only the level of entrepreneurial intention, but also the way in which cultural values will affect that intention. However, there still is a high level of ignorance about the specific forms in which these influences are exerted. We are confident that results of the VIE project will shed some light on these issues.

Furthermore, we believe that VIE results could have a highly significant practical application in order to achieve a better design of entrepreneurship promotion initiatives and entrepreneurship education programmes. Once the roles of values and socioeconomic factors on entrepreneurial intention are understood, it will be possible to explain why some societies show a higher interest in the entrepreneurial activity. The possibility arises, then, to design interventions specifically addressed to modifying some of the elements at play. In particular, the role of entrepreneurial education could be very relevant (Liñán, 2007; Moriano, Gorgievski & Lukes, 2008).

Moreover, we consider this project as a starting point for future extensions. On the one hand, we would like to further explore the influence of cultural values on the decision of venture creation and on the entrepreneurial orientation of active entrepreneurs. In order to do so, the database obtained within this project will be extremely useful, since it will include contact information allowing us to follow those potential entrepreneurs along the subsequent steps in the entrepreneurial process. On the other hand, inter-country comparisons could be also easily incorporated into our framework. In this respect, we are open to future collaborations with other researchers within a possible international project exploring the influence of cultural identities on entrepreneurial intentions for the EU Member States or in a broader international context.

References

- Ajzen, I. (1991). "The Theory of Planned Behavior". Organizational Behavior and Human Decision Processes, 50(2), 179-211.
- Ajzen, I. (2001). "Nature and operation of attitudes". Annual Review of Psychology, 52, 27-58.
- Aldrich, H. E., & Wiedenmayer, G. (1993). "From traits to rates: an ecological perspective on organizational foundings". In J. Katz & R. Brockhaus (Eds.), Advances in Entrepreneurship, Firm Emergence and Growth (Vol. 1, pp. 145-195), JAI Press, Greenwich, CT.
- Audet, J. (2004). "A longitudinal study of the entrepreneurial intentions of university students". *Academy of Entrepreneurship Journal*, 10(1), 3-16.
- Audretsch, D. B. (2002). Entrepreneurship : determinants and policy in a European-US comparison, Kluwer Academic Publishers, Boston.





- Audretsch, D. B., Keilbach, M. C., & Lehmann, E. (2006). *Entrepreneurship and economic* growth, Oxford University Press, New York, Oxford.
- Autio, E., Keeley, R. H., Klofsten, M., Parker, G. G. C., & Hay, M. (2001). "Entrepreneurial intent among students in Scandinavia and in the USA". *Enterprise and Innovation Management Studies*, 2(2), 145-160.
- Baron, R. A. (2004). "The cognitive perspective: a valuable tool for answering entrepreneurship's basic "why" questions". *Journal of Business Venturing*, 19(2), 221-239.
- Baum, J. R., Frese, M., & Baron, R. A. (2007). *The Psychology of Entrepreneurship*, Lawrence Erlbaum, New Jersey.
- Bird, B. (1988). "Implementing entrepreneurial ideas: the case for intention". Academy of Management Review, 13, 442-453.
- Brännback, M., Krueger, N. F., Jr., Carsrud, A. L., Kickul, J., & Elfving, J. (2007). 'Trying' to be an Entrepreneur? A 'Goal-Specific' Challenge to the Intentions Model, SSRN.
- Busenitz, L. W., & Lau, C. M. (1996). "A cross-cultural cognitive model of new venture creation". *Entrepreneurship Theory and Practice*, 20(4), 25-39.
- Bygrave, W. D., & Minniti, M. (2000). "The Social Dynamics of Entrepreneurship". *Entrepreneurship Theory and Practice*, 24(3), 25-36.
- Chen, C. C., Greene, P. G., & Crick, A. (1998). "Does entrepreneurial self-efficacy distinguish entrepreneurs from managers?" *Journal of Business Venturing*, 13(4), 295-316.
- Davidsson, P. (1995). "Culture, structure and regional levels of entrepreneurship". *Entrepreneurship and Regional Development*, 7(1), 41-62.
- Davidsson, P., & Honig, B. (2003). "The role of social and human capital among nascent entrepreneurs". *Journal of Business Venturing*, 18(3), 301-331.
- Davidsson, P., & Wiklund, J. (1997). "Values, beliefs and regional variations in new firm formation rates". *Journal of Economic Psychology*, *18*(2-3), 179-199.
- De la Vega, I., Coduras, A., Cruz, C., & Justo, R. (2007). *Informe Ejecutivo GEM España 2006*, Instituto de Empresa, Madrid.
- Douglas, E. J., & Shepherd, D. A. (2002). "Self-Employment as a Career Choice: Attitudes, Entrepreneurial Intentions, and Utility Maximization". *Entrepreneurship Theory and Practice*, 26(3), 81-90.
- Erikson, T. (1999). "A study of entrepreneurial career choices among MBAs The extended Bird model". *Journal of Enterprising Culture*, 7(1), 1-17.
- European Commission. (2003). *Green Paper Entrepreneurship in Europe*, DG Enterprise. European Commission, Brussels.
- Fayolle, A., & DeGeorge, J.-M. (2006). "Attitudes, intentions, and behaviour: New approaches to evaluating entrepreneurship education". In A. Fayolle & H. Klandt (Eds.), *International Entrepreneurship Education. Issues and Newness* (pp. 74-89), Edward Elgar, Cheltenham (UK).
- Fayolle, A., Gailly, B., & Lassas-Clerc, N. (2006). "Assessing the impact of entrepreneurship education programmes: a new methodology". *Journal of European Industrial Training*, 30(9), 701-720.





- Frese, M., van Gelderen, M., & Ombach, M. (2000). "How to plan as a small scale business owner: Psychological process characteristics of action strategies and success". *Journal of Small Business Management*, 38(2), 1-18.
- García-Cabrera, A. M., & García-Soto, M. G. (2008). "Cultural differences and entrepreneurial behaviour: an intra-country cross-cultural analysis in Cape Verde". *Entrepreneurship and Regional Development*, 20(5), 451-483
- Gartner, W. B. (1989). "Who is an entrepreneur?' is the wrong question". *Entrepreneurship Theory and Practice*, 13(4), 47-68.
- Gartner, W. B., Shaver, K. G., Gatewood, E. J., & Katz, J. (1994). "Finding the entrepreneur in entrepreneurship". *Entrepreneurship Theory and Practice*, *18*(3), 5-10.
- Guzman, J., & Santos, F. J. (2001). "The booster function and the entrepreneurial quality: an application to the province of Seville". *Entrepreneurship and Regional Development*, 13(3), 211-228.
- Hayton, J. C., George, G., & Zahra, S. A. (2002). "National culture and entrepreneurship: a review of behavioral research". *Entrepreneurship Theory and Practice*, *26*(4), 33-52.
- Hofstede, G. (1980). *Culture's consequences: international differences in work-related values*, Sage Publications, Beverly Hills.
- Hofstede, G. (1991). Cultures and organizations: software of the mind, McGraw-Hill, London.
- Hofstede, G. (2003). *Culture's consequences: comparing values, behaviors, institutions and organizations across nations* (2nd edition ed.), Sage Publications, Newbury Park.
- Hofstede, G., Noorderhaven, N., Thurik, A. R., Uhlaner, L. M., Wennekers, A. R. M., & Wildeman, R. E. (2004). "Culture's role in entrepreneurship: self-employment out of dissatisfaction". In T. E. Brown & J. M. Ulijn (Eds.), *Innovation, entrepreneurship and culture* (pp. 162-203), Edward Elgar, Cheltenham.
- Honig, B., & Karlsson, T. (2004). "Institutional forces and the written business plan". Journal of Management, 30(1), 29-48.
- Inglehart, R. (1997). *Modernization and Postmodernization*, Princeton University Press, Prenceton.
- Johannisson, B. (1991). "University training for entrepreneurship: Swedish approaches". *Entrepreneurship and Regional Development*, 3(1), 67-82.
- Johannisson, B., Ramirez-Pasillas, M., & Karlsson, G. (2002). "The institutional embeddedness of local inter-firm networks: a leverage for business creation". *Entrepreneurship and Regional Development*, 14(4), 297-315.
- Katz, J. A. (1988). "Entrepreneurship Researchers and Research Entrepreneurs Problems in the Equitable Sharing of Research Data". *Journal of Business Venturing*, *3*(2), 89-95.
- Kecharananta, K., & Baker, H. G. (1999). "Capturing Entrepreneurial Values". Journal of Applied Social Psychology, 29(4), 820-833.
- Kickul, J., & Zaper, J. A. (2000). "Untying the knot: do personal and organizational determinants influence entrepreneurial intentions?" *Journal of Small Business and Entrepreneurship*, 15(3), 57-77.
- Kolvereid, L. (1996). "Prediction of employment status choice intentions". *Entrepreneurship Theory and Practice*, 21(1), 47-57.





- Kolvereid, L., & Isaksen, E. (2006). "New business start-up and subsequent entry into selfemployment". *Journal of Business Venturing*, 21(6), 866-885.
- Krueger, N. F. (1993). "The impact of prior entrepreneurial exposure on perceptions of new venture feasibility and desirability". *Entrepreneurship Theory and Practice*, 18(1), 5-21.
- Krueger, N. F. (2007). "What lies beneath? The experiential essence of entrepreneurial thinking". *Entrepreneurship Theory and Practice*, *31*(1), 123-138.
- Krueger, N. F., & Brazeal, D. V. (1994). "Entrepreneurial potential and potential entrepreneurs". *Entrepreneurship Theory and Practice*, 19(3), 91-104.
- Krueger, N. F., & Carsrud, A. L. (1993). "Entrepreneurial intentions: applying the theory of planned behavior". *Entrepreneurship and Regional Development*, 5(4), 315-330.
- Krueger, N. F., Reilly, M. D., & Carsrud, A. L. (2000). "Competing models of entrepreneurial intentions". *Journal of Business Venturing*, 15(5-6), 411-432.
- Lee, R., & Jones, O. (2008). "Networks, Communication and Learning during Business Start-Up: The Creation of Cognitive Social Capital". *International Small Business Journal*, 26(5), 559-594.
- Lee, S. H., & Wong, P. K. (2004). "An exploratory study of technopreneurial intentions: a career anchor perspective". *Journal of Business Venturing*, 19(1), 7-28.
- Liñán, F. (2007). "The Role of Entrepreneurship Education in the Entrepreneurial Process". In A. Fayolle (Ed.), *Handbook of Research in Entrepreneurship Education* (Vol. 1, pp. 230-247), Edward Elgar Publishing, Cheltenham, UK.
- Liñán, F., & Chen, Y. W. (2009). "Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions". *Entrepreneurship Theory and Practice*, 33(3), 593-617.
- Liñán, F., & Santos, F. J. (2007). "Does social capital affect entrepreneurial intentions?" *International Advances in Economic Research*, 13(4), 443-453.
- Mcgrath, R. G., & MacMillan, I. C. (1992). "More Like Each Other Than Anyone Else a Cross-Cultural-Study of Entrepreneurial Perceptions". *Journal of Business Venturing*, 7(5), 419-429.
- Mcgrath, R. G., MacMillan, I. C., & Scheinberg, S. (1992). "Elitists, Risk-Takers, and Rugged Individualists - an Exploratory Analysis of Cultural-Differences between Entrepreneurs and Non-Entrepreneurs". *Journal of Business Venturing*, 7(2), 115-135.
- Mitchell, R. K., Smith, B., Seawright, K. W., & Morse, E. A. (2000). "Cross-cultural cognitions and the venture creation decision". *Academy of Management Journal*, 43(5), 974-993.
- Moriano, J. A., Gorgievski, M., & Lukes, M. (2008). *Teaching psychology of entrepreneurship*. *Perspectives from six European countries*, UNED, Madrid.
- Moriano, J. A., Palací, F. J., & Morales, J. F. (2007). "The Psychosocial Profile of the University Entrepreneur". *Psychology in Spain*, *11*, 72-84.
- Moriano, J. A., Palací, F. J., & Trejo, E. (2001). "El perfil psicosocial del emprendedor: un estudio desde la perspectiva de los valores". *Revista de Psicología Social, 16*(2), 229-242.
- Morris, M. H., Davis, D. L., & Allen, J. (1994). "Fostering corporate entrepreneurship: crosscultural comparisons of the importance of individualism versus collectivism". *Journal of International Business Studies*, 25(1), 65-89.





- Mueller, P. (2006). "Entrepreneurship in the region: Breeding ground for nascent entrepreneurs?" *Small Business Economics*, 27(1), 41-58.
- Mueller, S. L., & Thomas, A. S. (2001). "Culture and entrepreneurial potential: A nine country study of locus of control and innovativeness". *Journal of Business Venturing*, 16(1), 51-75.
- Mueller, S. L., Thomas, A. S., & Jaeger, A. M. (2002). "National entrepreneurial potential: the role of culture, economic development and political history". In M. A. Hitt & J. L. C. Cheng (Eds.), *Managing Transnational Firms: Resources, Market Entry and Strategic Alliances* (Vol. 14, pp. 221-257), JAI Press, Amsterdam.
- Naphiet, J., & Ghoshal, S. (1998). "Social Capital, Intellectual Capital, and Organizational Advantage". *Academy of Management Review*, 23, 242-266.
- OECD. (1998). Fostering entrepreneurship, Organisation for Economic Co-operation and Development, Paris.
- Parker, S. C. (2004). *The economics of self-employment and entrepreneurship*, Cambridge University Press, Cambridge.
- Peterman, N. E., & Kennedy, J. (2003). "Enterprise education: Influencing students' perceptions of entrepreneurship". *Entrepreneurship Theory and Practice*, 28(2), 129-144.
- Polley, R. B., Hare, A. P., & Stone, P. J. (Eds.). (1988). *The SYMLOG practitioner*. New York: Praeger.
- Reitan, B. (1998). *Perspectives on new venture creation. The stimulation of entrepreneurial potential and new venture attempts among young people.* Unpublished Doctoral Dissertation, The Norwegian University of Science and Technology, Department of Social Sciences and Technology Management, Trondheim, Norway.
- Reynolds, P. D. (1997). "Who starts new firms? Preliminary explorations of firms-in-gestation". *Small Business Economics*, 9(5), 449-462.
- Reynolds, P. D., Bosma, N., Autio, E., Hunt, S., De Bono, N., Servais, I., et al. (2005). "Global Entrepreneurship Monitor: Data Collection Design and Implementation 1998–2003". *Small Business Economics*, 24(3), 205-231.
- Reynolds, P. D., Bygrave, W., Autio, E., & Hay, M. (2002). *Global Entrepreneurship Monitor*. 2002 summary report, Ewin Marion Kauffman Foundation, Kansas City.
- Reynolds, P. D., Carter, N. M., Gartner, W. B., & Greene, P. G. (2004). "The prevalence of nascent entrepreneurs in the United States: Evidence from the panel study of entrepreneurial dynamics". *Small Business Economics*, 23(4), 263-284.
- Sackmann, S. A., & Phillips, M. E. (2004). "Contextual Influences on Culture Research: Shifting Assumptions for New Workplace Realities". *International Journal of Cross Cultural Management*, 4(3), 370-390.
- Schwartz, S. H. (1990). "Individualism-Collectivism. Critique and proposed refinements". *Journal of cross-cultural psychology*, 21(2), 139-157.
- Schwartz, S. H. (1999). "Cultural value differences: some implications for work". *Applied Psychology: An International Review*, 48, 23-48.





- Schwartz, S. H., Melech, G., Lehmann, A., Burgess, S., & Harris, M. (2001). "Extending the cross-cultural validity of the theory of basic human values with a different method of measurement". *Journal of Cross-Cultural Psychology*, *32*(5), 519-542.
- Shane, S., Kolvereid, L., & Westhead, P. (1991). "An Exploratory Examination of the Reasons Leading to New Firm Formation across Country and Gender". *Journal of Business Venturing*, 6(6), 431-446.
- Shane, S., & Venkataraman, S. (2000). "The promise of entrepreneurship as a field of research". *Academy of Management Review*, 25(1), 217-226.
- Shapero, A. (1975). "Displaced, Uncomfortable Entrepreneur". Psychology Today, 9(6), 83-&.
- Shapero, A., & Sokol, L. (1982). "Social dimensions of entrepreneurship". In C. A. Kent, D. L. Sexton & K. H. Vesper (Eds.), *Encyclopedia of entrepreneurship* (pp. 72-90), Prentice Hall, Englewood Cliffs (NJ).
- Shaver, K. G., & Scott, L. R. (1991). "Person, process, choice: the psychology of new venture creation". *Entrepreneurship Theory and Practice*, *16*(2), 23-45.
- Shook, C. L., Priem, R. L., & Mcgee, J. E. (2003). "Venture creation and the enterprising individual: a review and synthesis". *Journal of Management*, 29(3), 379-399.
- Thompson, E. R. (2009). "Individual entrepreneurial intent: construct clarification and development of an internationally reliable metric". *Entrepreneurship Theory and Practice*, 33(3), 669-694.
- Timmons, J. A. (1989). The entrepreneurial mind, Brick House, Andover, Ma.
- Tkachev, A., & Kolvereid, L. (1999). "Self-employment intentions among Russian students". *Entrepreneurship and Regional Development*, 11(3), 269-280.
- Triandis, H. C. (1995). Individualism & collectivism, Westview, Boulder, Colo; Oxford.
- Triandis, H. C., Bontempo, R., Villareal, M. J., Asai, M., & Lucca, N. (1988). "Individualism and collectivism: cross-cultural perspectives on self-ingroup relationships". *Journal of Personality and Social Psychology*, 54(2), 323-338.
- Veciana, J. M., Aponte, M., & Urbano, D. (2005). "University students' attitudes towards entrepreneurship: a two countries comparison". *International Entrepreneurship and Management Journal*, 1(2), 165-182.
- Wennekers, A. R. M., van Stel, A., Thurik, A. R., & Reynolds, P. D. (2005). "Nascent Entrepreneurship and the Level of Economic Development". *Small Business Economics*, 24(3), 293-309.
- Westall, A., Ramsden, P., & Foley, J. (2000). *Micro-entrepreneurs: creating enterprising communities*, Institute for Public Policy Research and New Economic Foundation, London.
- Zhao, H., Hills, G. E., & Siebert, S. E. (2005). "The mediating role of self-efficacy in the development of entrepreneurial intentions". *Journal of Applied Psychology*, *90*(6), 1265-1272.