

Influence of institutional environment on entrepreneurial intention: a comparative study of two countries university students

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Abstract Institutional environment influences the perceptions of desirability and feasibility, society's social and cultural environment, such as beliefs, values and attitudes, conditions behaviour and decisions made by individuals. This research evaluates the influence of institutional environment on entrepreneurial intention using a comparative analysis of different attitudes among university students in two countries: Portugal and Spain. In particular, this study aims to examine the perceptions of desirability, feasibility and intention toward the creation of one's own business and how that variables influence the entrepreneurial intention as compared these two different institutional contexts. Results revealed difference among attitudes toward entrepreneurship in both countries. With respect to the perception of feasibility, the majority of students in Extremadura (Spain) consider that it is easier to create a business in nowadays than it was several decades ago.

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However, from the students of Beira Interior (Portugal) consider that it is more difficult. Furthermore, in Extremadura, the entrepreneurial intention is higher than in Beira Interior.

Keywords University students · Entrepreneurial intention · Attitudes · Institutional economic theory · Portugal · Spain

Introduction

More and more, economic growth, the creation of new jobs and entrepreneurial innovation are becoming concern in society, especially by governments and public administrations of different countries. The creation of businesses is one of the things that affects the solution to unemployment problems (Birch 1979, 1987; Storey 1982; Birley 1987; Kirchhoff and Phillips 1988; Storey 1994; White and Reynolds 1996) the economic and regional development (Kent 1982; Sexton 1986; Dubini 1989; Storey 1994; Reynolds et al. 1999, 2000, 2001, 2002) and the promotion of innovation (Schumpeter 1912; Schumpeter 1942; Drucker 1964, 1986; Acs and Audretsch 1988; Hisrich and Peters 1989). Therefore, in the United States and Europe, measures and support programs to create new businesses and promote an entrepreneurial spirit among the people have been created.

Since the 1980s, entrepreneurship has become an important field of scientific research (Brockhaus 1987; Sexton and Bowman-Upton 1988; Hisrich 1988; Stevenson and Harmelin 1990; Bygrave and Hofer 1991; Blenker 1992; Hornaday 1992; Bouwen and Steyaert 1992; Johannisson 1992; Veciana 1999). Furthermore, the role of the individual in the designing public policies of entrepreneurship to promote the creation of new business is now more frequently considered.

The social and cultural environment such as beliefs, values and attitudes has influence in the behaviour and decisions made by individuals. So, this environment is influenced by the perception of desirability and feasibility and the final goal of creating a new business (Bruno and Tyebjee 1982; Kent 1984; Burch 1986; Birch 1987; Dubini 1989).

On the other hand, the changes in the institutional framework and the political and administrative decentralisation that have occurred in Europe, and especially in Spain, should lead to changes. For example, governments may become more responsible for structuring or organising their territories, carrying out development policies and creating an economic future of its people. One of the priorities of the current strategy of regional and local development is the promotion of territories with competitive abilities in order to stimulate the innovation, entrepreneurship capacity and flexibility of the productive system. By doing this, a territory can achieve a competitive advantage and improve its status in relation to the others (Porter 1990). For this reason, already developed resources from one territory have been combined with the promotion and the collection of resources and activities from other areas.

In order to achieve this, we must favour the qualification of human resources, promote new business capabilities, value business environments and improve the business world. In this context, the institutional economic theory developed by North (1990, 2005) gives an adequate theory for the institutional analysis of

entrepreneurs. It allows understanding and examining different forms of human interaction in a general framework of certain established rules, which can have a positive or negative influence on the economic development of different areas, and thus, the entrepreneurship activity.

This research aims to assess the influence of institutional environment on entrepreneurial intention among students, considering the students of the both Extremadura (Spain) and Beira Interior (Portugal) Universities.

This paper is divided into four main sections. After this introductory section, there will be a brief review of institutional economic theory. Following this, a description of the research methodology will be conducted. A discussion of the results is offered in fourth. Finally, some conclusions and implications of the findings are given.

Theoretical framework: theory entrepreneurial activity and institutional economic

Much research has been undertaken about the factors which stimulate entrepreneurial activity and also on the contribution which entrepreneurial activity makes to economic development across regions within a country (Stephen et al. 2005; Vaillant and Lafuente 2007). A considerable body of research has sought to understand the determinant factors of the supply side of entrepreneurial activity (Brock and Evans 1989; Storey 1999; Audretsch and Thurik 2001; Grilo and Thurik 2004; Thurik and Wennekers 2004; Bowen and Clercq 2005). According to Stephen et al. (2005) there has only been limited research on the contribution of entrepreneurial activity to explain the differences in economic development across countries. However, recent research shows that entrepreneurial activity has influence in the economic growth.¹ Bowen and Clercq (2005) concentrated his research in country's institutional characteristics that influence the allocation of entrepreneurial efforts. Grilo and Thurik (2004) focused on different factors that explain the level of entrepreneurial activity within a country, with attention devoted to the role of economic, political and psychological factors.

Many authors have proposed that economic development, and consequently creation of new firms depends not only on tangible factors (economic) but also intangible (socio-cultural) ones (Shapero and Sokol 1982; Gnyawali and Fogel 1994; Veciana et al. 2002; Stephen et al. 2005; Vaillant and Lafuente 2007). Entrepreneurship scholars have recently focussed their attention on the connection between institutional factors and entrepreneurial activity. According to Veciana et al. (2002) institutional theory seems to have drawn the attention to the institutional or contextual factors (cultural, social, political and economic) as determinants of entrepreneurship.

Several authors have used the Institutional Economic Theory with similar goals in different contexts. Among them, Veciana (1999) says that the institutional theory is, without doubt, the theory that currently gives us the most consistent and appropriate

¹ The impact of entrepreneurship on economic growth can be found in several researches, for example: Audretsch, D. and Thurik, R. (2004); Audretsch, et al. (2001); Baptista, R. and Thurik, R. (2004); Carree, M. and Thurik, R. (2005); Carree, M. et al. (2002); Grilo, I. and Thurik, R. (2004); and Stel, A. (2006).

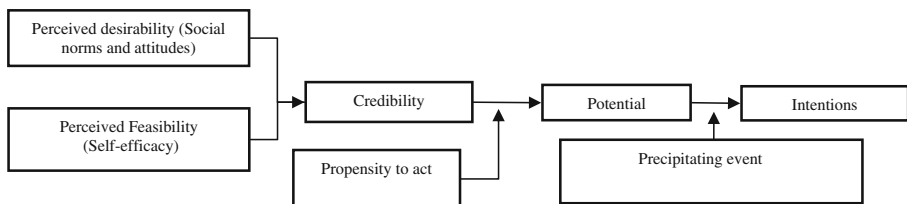
conceptual framework for the study of the influence of the external factors on business operation and entrepreneurship. So, this research has started with a framework of institutional economic theory developed by North (1990).

The institutional economic theory makes reference to the different factors or mechanisms conceived by society to conduct relationships or human behaviour. This theory uses the concept of institution (North 1990) in a broad context. The institutions are the restrictive norms and rules that govern society by conditioning and directing the framework of relations that are produced within this society. The development of the institutional economic theory allows us to understand and examine different forms of human interaction, both formal (laws, guidelines, constitutions, property rights...) and informal (ideas, beliefs, attitudes, social values, behaviour), in the general framework of the established rules (North 1990, 2005).

Among environmental formal variables, legal rules, government support measures and procedures have widely been described as critical in the decision to start a firm (Stephen et al. 2005). These authors added some insights on the role that institutions can play in the context of entrepreneurship. They suggested two important factors that have a strong influence on levels of entrepreneurship: (i) the importance of ‘role models’; and (ii) the differences in legal institutions. Their results suggested also that the existence of a second path through which institutions could influence long term economic development: by creating a favourable climate for entrepreneurship to flourish. According to Vaillant and Lafuente (2007) the presence of entrepreneurial role models is a prominent explanatory factor favouring entrepreneurial activity in rural (Catalonia) areas with strong industrial tradition.

Institutions affect the long-term economic performance, since the existing institutional framework conditions, through a structure of incentives and opportunities, the actions of different agents within society. Future entrepreneurs and their firms, as economic agents, are limited in their actions by this institutional structure. The rules of the game are affected by the appearance and development of new businesses (North 1990, 2005). On the other hand, Krueger and Brazael (1994) have developed a model (Fig. 1) in which, under a psychological-sociological perspective, aims to conceptualize and demonstrate the notion of *entrepreneurship potential*.

This model fits perfectly within the institutional economic theory, making it useful for our research. To develop his model, Krueger and Brazael use the work of Shapero and Sokol (1982) about *entrepreneurial events* and the *theory of planned behaviour* of Ajzen (1991). The belief that entrepreneurs have distinctive psychological characteristics has a long tradition in entrepreneurship research (Gartner 1988). Several studies focused on personality dimensions that may relate



Source: Krueger y Brazael, (1994: 95)

Fig. 1 Krueger and Brazael's model of business potential

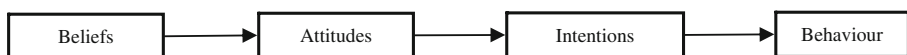
to entrepreneurial behaviour through the formation of entrepreneurial intentions (Kennedy et al. 2003; Brice 2004; Liñán-Alcalde and Rodríguez-Cohard 2004; Barahona and Escudero 2005; Asián 2005; Li 2006). Li (2006) argues that the theory of planned behaviour is very useful and it provides a sound theoretical framework toward understanding the antecedents of entrepreneurial intentions.

Shapero and Sokol's model of the *creation of an entrepreneurial event* is based on how the social and cultural environment affects the selection of a business model. For these authors, human behaviour is in a state of inertia, and is only changed when something interrupts it or shifts it in a positive or negative direction. This shift causes a change in behaviour and then decision maker looks for the best available opportunity from all the possible alternatives (Katz 1992). The selection of behaviour depends on the relative credibility of the alternative behaviours (in this situation, the alternatives for the decision maker), plus a *propensity to act* (which is done in such a way that the decision maker cannot carry out any other significant action).

The term credibility means that the behaviour is seen as *desirable and viable* (Krueger and Brazael 1994). One must want to start a business and see it as a feasible possibility before a precipitating factor or event can occur. It is this factor that gives one the final drive to start a business. On the other hand, Ajzen's *theory of planned behaviour* tries to predict and explain human conduct by focusing on the individual's intention to act in accordance with the given behaviour in the long term, not the short term. This point makes this theory applicable to entrepreneurship (Krueger and Casrud 1993). In this model, personal perceptions (perceived desire and the perception of feasibility), do not directly influence intentions, but rather attitudes, which in turn influence intentions and conduct (Fig. 2).

Li (2006) used an intentional model, the theory of planned behaviour, to study the entrepreneurial intentions of Chinese and Indian students at a university. The results of their study showed that entrepreneurial intention was predicted significantly by personal attractiveness and perceived feasibility and also that students' entrepreneurial intention is more of a choice than a necessity. This author argues that the theory of planned behaviour is very useful and that it provides a sound theoretical framework for understanding the antecedents of entrepreneurial intentions. For Krueger and Brazael, the relationship between Shapero and Sokol's model and Ajzen's model are shown in Table 1.

Krueger and Brazael's model identifies the common elements that appear in Shapero and Sokol's model of the entrepreneurial event, such as the perception of desire and feasibility (Shapero and Sokol 1982), with Ajzen's theory of planned behaviour, which includes attitudes towards behaviour, a subjective norm and a perceived control of the behaviour (Ajzen 1991). This is possible, because, according to Krueger and Brazael (1994), both Shapero and Ajzen focus on a



Source: Ajzen (1991:18).

Fig. 2 Theory of planned behaviour: behaviour as a function of beliefs

Table 1 Relationship between Shapero and Sokol's Model and Ajzen's theory of planned behaviour

Shapero and Sokol's model	Ajzen's theory of planned behaviour
• Perception of desirability of entrepreneurship	• Attitudes toward conduct
	• Subjective norms
• Perception of feasibility of entrepreneurship	• Perceived control of behaviour

Own elaboration

common aspect of planned behaviour and the entrepreneurial event: the intention. According to different authors (Bird 1988; Katz and Gartner 1988; Krueger and Casrud 1993), business intentions are vital in understanding entrepreneurship because these intentions establish important initial characteristics for new organizations. In this way, intentions predict and clearly explain planned behaviour, such as the creation of a business (Krueger 1993a).

Perception of desirability toward entrepreneurship

According to Shapero, perceived desire is defined as the degree to which the individual finds the creation of a business attractive, or, one's inclination to open a business. Shapero and Sokol's model of perceived desire is similar to the two most important elements of the theory of planned behaviour: the attitude towards behaviour, or, in other words, the individual's preferences for a certain kind of business (new business, an existing one, a technological one, or a rudimentary one) or a type of reward (innovation, prestige) and the subjective norms (Krueger and Brazael 1994). These norms refer to the social desirability toward entrepreneurship. This refers to one's perception about what others around them, or those who are important in their lives, will think about the creation of a business and whether they will view it as desirable or not.

According to North (1994), the perceptions from collective learning are reflected in the culture of society which can condition social desirability toward entrepreneurship. The norms, then, frequently reflect the influence of social values and attitudes. These factors have been identified as an important barrier for creativity and innovation (Shane 1992).

The perception of feasibility of entrepreneurship: perceived self-efficiency

Perceived feasibility is the degree to which individuals think that they are able to start a company. This includes the greatest or least degree to which he/she considers this possibility to be feasible. Perceptions of feasibility seem to be closely related with the perceptions of self-efficiency (Ajzen 1987). Perceived self-efficiency is the one's perception of his/her personal ability to execute target behaviour or the competence and personal control one possesses in any given situation. According to Krueger and Brazael (1994:94) *self-efficiency is united, theoretically and empirically, with phenomena related to management conduct and knowledge, and in a straight forward*

manner; *entrepreneurship*. So, self-efficiency is related to conduct in situations of high-risk and uncertainty and the flexibility of behaviour (behaviour) when facing threats and adverse situations. Perceived self-efficiency strongly influences the perceptions of circumstantial risk (Bandura and Wood 1989; Yates and Stone 1992), and is the most important reliable element to predict the choice of profession (Bandura 1986). In this way, it becomes a central element of entrepreneurial intentions and can predict both opportunities and threats toward entrepreneurship.

An individual with significant business potential does not need to plan to make these “business dreams” realities. As long as a relevant change, or shift, in his/her situation occurs, his/her intentions and behaviour appear (Krueger and Brazael 1994).

Methodology and research hypotheses

To carry out this research, we followed the study about *Attitudes Toward Entrepreneurship* by Genescà and Veciana (1984) that was replicated and extended by Veciana et al. (1999, 2005), Aponte (2002), and Urbano (2003), for Catalonia and Puerto Rico, and Díaz (2003) for Extremadura, in which diverse items have been added such as the perception of feasibility, the factors that influence and make entrepreneurship more difficult, and the entrepreneur’s image. Moreover, models of entrepreneurial intention have been taken into account, such as those of Shapero and Sokol (1982), Ajzen (1991), and Krueger and Brazael 1994.

With regard to the collection of information, we carried out surveys among the general population and university students because this group is more likely to start a business (Genescà and Veciana 1984; Veciana 2001; Urbano 2003; Díaz 2003). We have asked students, in their last 2 years of college, because those students have a clearer vision of their future (with relation to the decision whether or not to create their own business) than those in the initial stages of their degree. However, we have considered students selected from all fields of study: health sciences, experimental sciences, human sciences and social sciences. The principal methodological details from the research are summarised in Table 2.

Literature about entrepreneurship has thoroughly analysed the existing relationship between *entrepreneurship*, *family background*, and *gender*. In this sense our research hypotheses will be formulated taking in consideration the relationship between these variables.

(i) *Gender variable*

Several scientific literature analyses the relationship between “gender” and attitudes towards entrepreneurship (Scherer et al. 1989; Matthews and Moser 1995a, b). Some of these studies show that men have more propensity to start a business than women (Scherer et al. 1989; Matthews and Moser 1995b; Kolvereid 1997). Along the same lines, Delmar and Davidsson (2000) found that gender is a fundamental factor in the decision to start a business, and that men are more likely to do so than women. Aponte (2002) and Díaz (2003) have also found the same relationship between gender and the intention to start a business. Veciana et al. (2005) have also found this relationship and have taken it further, noting the relationship between desirability of entrepreneurship and gender. However, Genescà and Veciana (1984) had already discovered this

Table 2 Research techniques

	Beira interior	Extremadura
Population	2091 university students in their last 2 years of study, in different fields of study	18.071 University students in their last 2 years of study, in different fields of study
Sample	Students in their 4th or 5th year of college	Students in the last 2 years of college
Geographic area	Beira interior	Extremadura (University of Extremadura)
Sample design	A stratified random systematic sample of the university and fields of study	A stratified random systematic sample of fields of study
Sample size	527 surveys University students	516 surveys University students
Level of confidence	95% $Z=1.96$ $p=q=0.05$	95% $Z=1.96$ $p=q=0.5$
Margin of error	$\pm 4.27\%$	$\pm 4.90\%$
Collection of information	Personal surveys	Personal surveys
Control methods	5	5

relationship between desirability and gender. Thus, we establish the following hypotheses:

- H1: *Gender does not influence on the perception of desirability of creating one's own business.*
- H2: *Gender does not influence on the perception of the feasibility of creating one's own business.*
- H3: *Gender does not influence on the perception of intention of creating one's own business.*

(ii) *Family background*

Literature about “family background” states that there is a positive relationship between family models and the emergence of entrepreneurs (Brockhaus and Horwitz 1986; Cooper 1986; Scott and Twomey 1988; Scherer et al. 1989; Matthews and Moser 1995a). In this way, Boy and Vozikis (1994) show that entrepreneurial intentions are stronger and the final decision to create a business more probable if one receives more social support. The role of the future entrepreneur's family as a social institution and family model are of special significance. These are “perfect” models that show that children who view their parent's ability to effectively carry out a professional activity normally decide to work in the same career field as their parents (Scherer et al. 1991; Casrud 1992). However, Scott and Twomey (1988) believe that preferences for a business career originate from several models. Other researchers agree that business models based on family environments have influence in the child's business preference (Kent et al. 1981; Cooper and Dunkelberg 1987; Duchesneau and Gartner 1990).

Moreover, the models of intentions that are used to predict behaviour allow that previous experiences, both good or bad, to indirectly influence one's intentions

through attitude and perceived control (Ajzen 1991). The experience that one has in a family of entrepreneurs, which starts during childhood, seems to influence the attitudes and entrepreneurial intentions (Krueger 1993b). This happens in such a way that the role models affect entrepreneurial intentions, but only if it affects attitudes (Scherer et al. 1989; Krueger 1993a). In this context we formulated the following hypotheses:

- H4: *Having family members who are entrepreneurs has no influence on the perception of the desirability of creating one's own business.*
- H5: *Having family members who are entrepreneurs has no influence on the perception of the feasibility of creating one's own business.*
- H6: *Having family members who are entrepreneurs has no influence on the perception of intention of creating one's own business.*

Results of the research

Desirability of creating one's own business

Table 3 shows us the results of the answers to the question about the desirability of creating one's own business. In it, we can see the homogeneity of the perceptions of desirability in entrepreneurship among university students of Beira Interior and Extremadura (793.3% vs 80.2%).

Feasibility of creating one's own business

In Table 4, we can see that, while in the University of Extremadura the students think that it is "easier" to create a business nowadays that it was before, in the University Beira Interior, the students think that it is "more difficult" to create a business nowadays. However, there is not a significant difference in these percentages.

The intention to create one's own business

Table 5 shows the different answers and levels of intention to the question: *have you thought seriously about creating your own business?* The percentage of university students who responded with a negative intention ("no, never" and "no, but about working in a family business") are less in Extremadura (25.9%) than in Beira

Table 3 Desirability of creating one's own business, in percentages (Beira interior and Extremadura)

Do you consider starting your own business desirable?	Beira interior (%)	Extremadura (%)
Yes	79,3	80,2
No	20,5	19,0
Not sure	0,2	0,8

Table 4 The feasibility of creating one's own business, percentages (Beira interior and Extremadura)

Do you think it is easier or more difficult to start a business now than in previous decades?	Beira interior (%)	Extremadura (%)
Easier	48,0	55,4
More difficult	51,0	43,4
The same	—	0,4
Not sure	0,9	0,8

Interior (35.9%). The percentages of positive intention (“yes, some”; “yes, seriously” and “yes, I have a strong intention”) are higher in Extremadura (74.1%) than in Beira Interior (62.1%).

However, the individuals who have showed an intention to start a business have already acted upon their intention by starting a company, or are in the process of starting one, are higher in Beira Interior than in Extremadura (20.3% vs. 14.9%). In Extremadura, we did not find any university students who are starting his/her own business or are already entrepreneurs.

If we compare these results with the research carried out in Spain in the 1980s (Genescà and Veciana 1984), we can see that the percentages from the results obtained in Portugal are practically the same, except those in which more university students are creating their own companies or have already started one (1.7% vs. 0%). On the other hand, in contrast with the values obtained in Extremadura, we can observe that the added percentages of positive intention have increased (64.2% vs. 74.1%) due to the intention of ‘yes, some’. But, the percentages for the answers of ‘yes, seriously’ (14.2% vs. 9.9%) and ‘yes, my intentions are firm’ (6.5% vs. 5%) have declined.

The image of the entrepreneur

The image of the entrepreneur can be analysed using university students’ assessment of an entrepreneur’s attributes in society and different professions depending on their social prestige. The Tables 6 and 7 show these results.

Table 5 Intention to create one's own business, percentages (Beira interior and Extremadura)

Have you thought about starting your own business?	Beira interior (%)	Extremadura (%)
No, never	32,1	21,6
No, but I have thought about working in my family's business	3,8	4,3
Yes, some	43,5	59,2
Yes, seriously	11,2	9,9
Yes, my intentions are firm	7,4	5,0
I am creating my own business	0,9	
I am an entrepreneur	0,8	
Not sure	0,4	

Table 6 The attributes related to the entrepreneur's image

An entrepreneur's attributes	Beira interior			Extremadura			Mean difference T test
	Numerical order	Mean	Average deviation	Numerical order	Mean	Average deviation	
Entrepreneurs:							
Are dynamic people	1	1,76	0,59	1	1,90	0,62	-3,370 ^b
Have organisational abilities	2	1,99	0,62	3	1,95	0,64	1,024
Have financial and management abilities	8	2,15	0,69	9	2,24	0,76	-1,870
Have an innovative mentality	6	2,09	0,74	7	2,18	0,77	-1,824
Are professionally trained	11	2,43	0,73	12	2,54	0,72	-2,353 ^a
Are able to take risks	9	2,19	0,73	4	1,99	0,68	4,364 ^b
Have a vision of the future	10	2,22	0,77	7	2,18	0,76	0,762
Invest money	3	2,01	0,73	2	1,94	0,73	1,504
Create employment	4	2,02	0,76	6	2,10	0,82	-1,420
Help his/her country develop	5	2,05	0,75	5	2,09	0,79	-0,739
Earn a lot of money	7	2,14	0,79	11	2,43	0,78	-5,591 ^b
Communicates with workers	12	2,49	0,79	10	2,38	0,76	2,263 ^a
Are moral and honest people	13	2,56	0,82	13	2,61	0,84	-0,918
Have a strong sense of social justice	14	2,59	0,81	14	2,63	0,78	-0,796

Ranking from 1 to 4 points (1: maximum; 4: minimum)

^a Sig<0,05

^b Sig<0,001

From the previous table, we can see that the most valued positive attributes are the ability to invest and having a dynamic character and good organizational skills. The negative attributes according to the university students are similar in both Beira Interior and Extremadura and include an entrepreneur's lack of social justice standards, immoral or dishonest conduct, failure to communicate with workers, and the fact that they are not professionally trained. In spite of the similarities in the values of the attributes of entrepreneurs, we have found significant differences between the averages in some positive attributes ("they are dynamic people") and in the negative attributes ("inability to communicate" or "not professionally trained"). On the other hand, Table 7 reflects the ranking and values of 14 professions with relation to the prestige that each one has among university students in both societies.

The profession of entrepreneurs is ranked similarly in Beira Interior and Extremadura. In Beira Interior, this profession is ranked at 4th place and in 5th place in Extremadura. However, we have found significant differences in the averages. The same thing happens with highly valued professions (such as doctors, engineers, economists or business managers) and with some of those that are not so highly valued (translator or interpreter).

Table 7 Ranking of 14 professions according to their prestige in society

Ranking of professions	Beira interior			Extremadura			Mean difference T test
	Numerical order	Mean	Standard deviation	Numerical order	Mean	Standard deviation	
Teacher	6	4,66	1,79	11	4,36	1,70	2,734
Lawyer	7	4,55	1,71	6	4,99	1,50	-4,294 ^c
Doctor	1	5,93	1,56	1	6,23	1,14	-3,462 ^c
Engineer	2	5,35	1,45	2	6,13	1,17	-9,517 ^c
Economist	3	4,90	1,44	4	5,48	1,23	-6,856 ^c
Entrepreneur	4	4,88	1,47	5	5,18	1,34	-3,407^c
Director of a company	5	4,78	1,44	3	5,75	1,41	-10,828 ^c
Journalist	8	4,41	1,61	8	4,72	1,51	-3,143 ^c
Physicist	10	4,37	1,64	7	4,81	1,68	-4,216 ^c
Psychologist	11	4,29	1,63	10	4,57	1,48	-2,837 ^b
Publicist	12	4,13	1,56	13	4,14	1,47	-0,94
Chemist	9	4,38	1,67	9	4,60	1,58	-2,138 ^a
Sociologist	13	3,90	1,71	14	4,01	1,52	-1,026
Translator and/or Interpreter	14	3,68	1,75	12	4,24	1,67	-5,245 ^c

Ranking from scale of seven-points (7 = maximum, 1 = minimum).

^a Sig<0,05

^b Sig<0,01

^c Sig<0,001

Hypotheses testing

The current research uses statistical techniques for cross-tabulation and Pearson's Chi-squared Test to analyse the data obtained. In order to test the different hypotheses, we have crossed the variables *desirability*, *feasibility*, and *intention* to create a new business with the variables *gender* and *family business*. The level of significance chosen for the validation of the hypothesis is 95%.

Table 8 shows us the statistical test for *Hypothesis 1 (H1): Gender does not influence on the perception of desirability of creating one's own business*. This hypothesis is not rejected for either of the samples, so the alternative hypothesis is confirmed for both regions. Thus, the gender of the person interviewed does not influence perception of desirability of creating one's own business in either the Portuguese sample or the one from Extremadura.

The research carried out in Spain in the early 1980s showed a significant influence in the results due to gender, since 59% of men, versus 48% of women, considered creating a business desirable. The authors of this study explain the reason for these differences in the percentages of desirability for the two genders as a clear reflection of the relative cultural question of the roles attributed to one gender or the other (Genescà and Veciana 1984:152). On the other hand, in these cases, even though desirability has increased for both sexes, the levels are similar with regard to

Table 8 Cross tabulation between the variables gender and the desirability of creating one's own business (percentages)

Do you consider starting your own business desirable?	Beira interior			Extremadura		
	Yes	No	Not sure	Yes	No	Not sure
Men	77,9	22,1	–	83,5	16,5	–
Women	80,5	19,5	–	79,6	19,2	1,2
Total desirability	79,3	20,7	–	80,2	19,0	0,8
Value of Chi-squared (χ^2)	0,526			2,670		

the desirability of starting a business. So, cultural differences with regard to the roles attributed to gender seem to have decreased or disappeared.

Table 9 shows us the statistic test for *Hypothesis 2 (H2): Gender does not influence on the perception of feasibility of creating one's own business*. Looking at the results, there is a greater perception in Extremadura than in Beira that it is easier to create a business now than in previous decades and more specifically, on behalf of the women in the case of Extremadura (56.9% or 53.5%) and Portuguese men (52.7% vs 45.2%).

H2 can be accepted for both samples, since a significance level of 91.4% has been found for the Portuguese sample and 90% for the students from Extremadura. Thus, we cannot affirm that the perception of feasibility is conditioned by gender.

Table 10 shows us the statistical test for *Hypothesis 3 (H3): Gender does not influence on the perception of intention of creating one's own business*. The H3 is rejected for the samples taken in both Beira Interior and Extremadura, so the alternative hypothesis is confirmed. *The gender of the person surveyed influences his/her strong entrepreneurial intention* in both areas. The percentage of men (23% vs. 24,4%) that responded “yes, seriously” or “yes, a firm intention” was higher than that of women (14,8% vs. 8,9%), and even in Portugal, 3.8% of the male university students are either in the process of starting a business or have done so already. In Extremadura, there was nobody in this situation.

These differences in percentages of intention among men could be due to the greater access of men to the business world, as shown in different GEM reports

Table 9 Cross tabulation between the variables gender and the feasibility of creating one's own business (percentages)

Do you think it is easier or more difficult to start a business now than in previous decades?	Beira interior			Extremadura		
	Easier	More difficult	Not sure	Easier	More difficult	Not sure
Men	52,7	47,3	–	53,5	45,3	1,2
Women	45,2	54,8	–	56,9	41,9	1,2
Total feasibility	48,6	51,4	–	55,8	43,0	1,2
Chi-squared (χ^2)	2,944			6,534		

Table 10 Cross tabulation between the variables gender and the intention to create one's own business (percentages)

Have you thought about starting your own business?	Beira interior			Extremadura		
	Men	Women	Total	Men	Women	Total
No, never	28,5	35,1	32,1	17,6	23,7	21,7
No, No, but I have thought about working in my family's business	4,2	3,5	3,8	1,8	5,3	4,1
Yes, some	40,6	46,5	43,8	54,1	62,1	59,4
Yes, seriously	11,3	11,3	11,3	18,2	5,3	9,6
Yes, my intentions are firm	11,7	3,5	7,3	8,2	3,6	5,1
I am creating my own business	2,1	—	1	—	—	—
I am an entrepreneur	1,7	—	0,8	—	—	—
Not sure	—	—	—	—	—	—
No, never	25,399 ^b			30,979 ^a		

^a Sig<0,05^b Sig<0,001

(Minniti et al. 2004; Minniti et al. 2005). We agree with Aponte (2002), when he states that this could be due to the fact that women now have greater family responsibilities, such as housework and caring for their children, which means that they do not have as much time for their own business as men. These responsibilities also imply likelihood to take fewer risks in order to preserve family stability.

In Beira Interior, with a similar level of desirability to that of Extremadura, but where the perceptions of feasibility are lower, the level of intention to create a business, including those people who have already started a business or are in the process of doing so, is greater. This leads us to believe that the students from Beira have a greater entrepreneurial spirit than the students in Extremadura.

Table 11 shows us the statistic test for *Hypothesis 4 (H4): Gender has no influence on the perception of desirability of creating one's own business*. The hypothesis is rejected because we found significant statistical differences in the cross-tabulation of students in Beira Interior, so in this case, having *family members*

Table 11 Cross tabulation between the variables gender and the desirability to create one's own business (percentages)

Do you consider starting your own business desirable?	Beira interior			Extremadura		
	Yes	No	Not sure	Yes	No	Not sure
Family members that are entrepreneurs	83,8	16,2	—	80,5	19,2	0,3
Family members that are not entrepreneurs	73,9	26,1	—	81,5	17,8	1,0
Total desirability	79,1	20,9	—	80,4	18,8	0,8
Value de Chi-squared (χ^2)	7,599 ^a			5,752		

^a Sig<0,01

that are entrepreneurs influences the perception of desirability of creating a business. On the other hand, for the sample of students from Extremadura, the hypothesis is accepted since statistical significance has not been found at the level of 95%, but has been found at 90%.

In Genescà and Veciana (1984) study from the 1980s, they concluded that “having a businessman in the family significantly influences one’s attitude toward entrepreneurship (67.4% of positive answers vs 4.6%). This can also be shown to be the case in the Portugal.

Table 12 shows us the statistical test for *H5: Having family members who are entrepreneurs has no influence on the perception of feasibility of creating one’s own business*. Significant statistical differences have not been found between *family business* and *perception of feasibility* in university students, so we accept *H5* for both samples.

Table 13 shows us the statistical test for *Hypothesis 6 (H6): Having family members who are entrepreneurs has no influence on the perception of intention of creating one’s own business*. According to the results, *H6* is accepted for the sample of students from Extremadura, but rejected for Beira Interior, so in this sample *having a family member who is an entrepreneur influences the perception of intention of creating one’s own business*.

Conclusions

This study indicates that for both countries, Beira Interior region and Extremadura region, the majority of university students have a positive perception of the desirability of entrepreneurship. Thus, there is homogeneity of results from the samples of both groups. With respect to the perception of feasibility, the students of Extremadura think that it is easier to create a business in nowadays than it was several decades ago. However, the students of Beira Interior think that it is more difficult.

In Extremadura, entrepreneurial intention is higher than in Beira Interior. However, the seriousness of these intentions is greater in Portugal given the fact that we have found students that are already creating their own business or are already entrepreneurs.

Table 12 Cross tabulation between the variables gender and the feasibility of creating one’s own business (percentages)

Do you think it is easier or more difficult to start a business now than in previous decades?	Beira interior			Extremadura		
	Easier	More difficult	Not sure	Easier	More difficult	Not sure
Family members that are entrepreneurs	51,3	48,7	–	53,1	46,2	0,6
Family members that are not entrepreneurs	45,3	54,7	–	59,9	38,1	2,0
Total desirability	48,4	51,6	–	55,5	43,3	0,8
Chi-squared (χ^2)	1,861			5,813		

Table 13 Family member who is an entrepreneur and the intention of crating one's own business (percentages)

Have you thought about starting your own business?	Beira interior			Extremadura		
	Family member who is an entrepreneur	Family member who is not an entrepreneur	Total	Family member who is an entrepreneur	Family member who is not an entrepreneur	Total
No never	26,2	38,9	32,2	19,9	25,9	21,6
No, No, but I have thought about working in my family's business	4,4	3,3	3,9	5,1	2,5	4,3
Yes, some	45,8	41,0	43,5	57,9	60,6	59,3
Yes, seriously	11,8	11,1	11,5	10,6	8,0	9,7
Yes, a firm intention	10,0	4,1	7,2	6,5	3,0	5,1
I am starting a business	0,7	1,2	1	—	—	—
I am an entrepreneur	1,1	0,4	0,8	—	—	—
I created a business and closed it	—	—	—	—	—	—
Chi-squared (χ^2)	14,901 ^a			12,833		

^a Sig<0,05

The image of the entrepreneur in society can be considered positive, since the prestige of being an entrepreneur in Beira Interior and Extremadura is ranked in fourth and fifth positions respectively. Positive attributes of the image of an entrepreneur in both societies include having dynamic character, organizational skills or and contributing to the development of one's country. According to the results, we can argue that the variable intention is the one that has given us the greatest number of relationships between both groups, with a high level of statistical significance. So, we can state that the gender influences the perception of intention in creating a new business and that, only in Beira Interior, the presence of family members that are entrepreneurs influences the perceptions of desirability and intention to create a business. Aponte (2002) also found a relationship between intention and gender among the population of Puerto Rico. However, Veciana et al. (2005) found that for the university students of Catalonia, there was a relationship between intention, gender and a family history of entrepreneurs on one hand, and the desire of entrepreneurship and gender on the other hand. Genescà and Veciana (1984) also explain the perception of desirability of entrepreneurship using factors such as gender and entrepreneurs in the family.

On the other hand, none of the samples used in this research show an influence of the family background or gender in the perception of feasibility toward the creation of new business, even though the significance levels have not been low in the last cases.

Nevertheless, any study has, inevitably, limitations. Considering that the approach chosen was, effectively, a cross-sectional research and quantitative analysis methods, there are, consequently, several accepted limitations: (i) the samples used in the

research were not representatives of the total population of two countries; (ii) the statistic analysis used limits the conclusions about the relations of variables. It will be important to test the model with resource to structural modelling equations in order to established simultaneous effects across the variables.

The entrepreneurship intention is seen, frequently, as something intrinsically useful, something that countries should make an effort to accomplish it. In this sense, it is essential to examine the relationship between entrepreneurship intention of the university students and the effective business creation. Although, there is much evidence concerning intentions as a robust predictor of future behaviour, a preferable design would adopt a longitudinal approach that follows up to see which participants actually start own business. It seems critically important to determine whether or not the results of this study can be generalised and whether theories or conceptual paradigms on institutional environment of entrepreneurship can be developed. In this sense, it would also be useful to examine others variables and to test it in different contexts. We believe that the integration of different dimensions would certainly enhance the theory development in the field.

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