

GENDER AND ENTREPRENEURSHIP: ANALYSIS OF A YOUNG UNIVERSITY POPULATION

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Abstract

The main objective of the present study is to compare the entrepreneurial intentions of university students, and their evaluation of the figure of the entrepreneur, contrasting the perceptions of men and women.

An empirical analysis based on a fieldwork carried out at the University of Cordoba, Spain was made. The final sample comprised a total of 1,400 valid questionnaires

Results show over the next few years women (at least those who attend university) are less likely than men to create businesses. Currently, only one in every five women at university contemplates the possibility of starting a business and university students evaluate differently their possession of various attributes of great importance to entrepreneurship

KEY WORDS: Entrepreneur, woman, gender differences, University

JEL Codes:

1. Introduction

The entrepreneurial capital in any society is a phenomenon requiring complex analysis, since it is influenced by numerous variables, including the social, political, economic and cultural conditions prevailing in the country; the opportunities available; and the population's entrepreneurial capacities. The current global economic crisis renders the study of entrepreneurship and related phenomena even more challenging. Undoubtedly, however, the encouragement of entrepreneurship has been a constant aim of European Union (EU) employment policy, since business creation drives innovation, competition and growth for society as a whole.

Even so, the perception of self-employment amongst EU citizens differs considerably compared to, the United States, where the total entrepreneurial activity (TEA) rate remains much higher than the EU average.

Meanwhile it is essential to undertake a rigorous analysis of self-employment and entrepreneurial attitudes in terms of gender. Women today constitute a social group of overwhelming importance, especially given the sustained growth in the number of businesswomen in the vast majority of developed nations. However, there is still a marked lack of gender equality at senior executive level (between 65 and 75% of company owners and directors in the EU are male, according to the Centre for Enterprise and Economic Development Research at Middlesex University) and also in creation of new businesses (in Spain, only 24.6% of self-employed who work for themselves and

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generate additional employment for others are women). This situation demands the support of state-run initiatives aimed at the continuing reduction of the gender gap in this area.

It is in this context that the study of women as entrepreneurs has started to receive the attention of the academic world (Scherer et al., 1989; Mathews and Moser, 1995; Kolvereid, 1997; Delmar and Davidsson, 2000; Aponte, 2002; Veciana et al., 2005). Aspects such as gender-related differences in entrepreneurial attitudes, the psychosocial characteristics of the potential female entrepreneur and the obstacles and incentives cited by women in starting a business activity have all been the subject of investigation in the specialised literature.

Meanwhile, universities have begun a process of support for those who have finished their studies and, unwilling to limit themselves to the offers available on the job market, are prepared to create their own employment. As a result, university education is a characteristic feature of the typical entrepreneur profile. In analysing gender-related differences in perceptions of entrepreneurship, it is therefore important to focus on the university sector.

The main objective of the present study was thus to compare the entrepreneurial intentions of university students, and their evaluation of the figure of the entrepreneur, contrasting the perceptions of men and women. To this end an empirical study was carried out on a large student sample at the University of Cordoba (Spain). Unlike other studies, based on samples of men and women owning established businesses, and aimed at distinguishing in terms of financial performance and strategies pursued, the present study seeks to start at an earlier point, analysing entrepreneurial intentions and gender-driven differences in the various factors influencing those intentions.

2. Theoretical framework

This section will examine the main theoretical background to the study, providing details of the subject matter in the process. There will be a review of the specialised literature on the figure of the entrepreneur, later focussing on the issue of female entrepreneurship, concluding with an analysis of the role of universities.

2.1. The entrepreneur: profile and theories. One of the fundamental aims of the research into business creation is to provide an account of the figure of the entrepreneur and his profile (Boden and Nucci, 2000), and since the 1980s numerous studies of this type have been published. The definitions of the term “entrepreneur” offered by the literature, as well as the characteristics associated with the role, are numerous. Cedefop (1991, p. 10) defines an entrepreneur as “the person who organises, manages and takes risks in his own business or productive activity because he believes he has something new to contribute or because there is a productive area in which he can compete satisfactorily”. González Morales (2001) applies the term to people who run companies, bear their risks, coordinate resources and are alert to any opportunities that may arise, introducing innovations, and therefore considers that the major functions of the entrepreneur include management and innovation. Indeed, scientific studies have traditionally emphasised the figure of the businessman himself as the key driving force behind innovation and progress within an economic system (following the writings of Schumpeter) and the key to success for new enterprises (Kham, 1986; MacMillan et al., 1985; Sandberg and Hofer, 1986, 1987; Stuart and Abetti, 1987, 1988; among others).

But while researchers have repeatedly tried to identify the *psychological profile* of the potential entrepreneur, it has proved impossible to establish the particular traits possessed

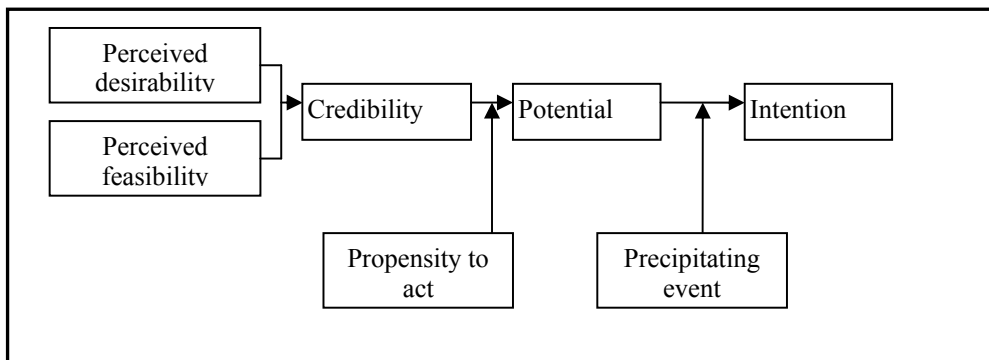
by those who are most likely to create a business (Garcia Lillo and Marco Lajara 1999, Hernández, 1995; Naffziger et al., 1994; among others). Nor does it seem possible to establish the existence of a strong relationship between a businessman's characteristics and his subsequent success (Brockhaus and Horwitz, 1986; McDougall et al., 1992; among others).

As far as theories of entrepreneurs and entrepreneurship are concerned, we may highlight among others the Institutional Economic Theory, Krueger and Brazeal's model and Ajzen's Theory of Planned Behaviour.

Institutional Economic Theory has been used by a number of authors (Díaz Casero et al., 2007a; Veciana, 1999) to provide an explanatory framework for entrepreneurial behaviour. This theory makes reference to the factors devised by society to channel relationships and human behaviour, using the term “institution” in its widest sense. The institutions, acting the restrictive norms and rules governing society, affect economic performance over the long term and condition the actions of the various agents involved in it. Future entrepreneurs therefore, as economic agents, will perceive their actions as limited by the institutional structure, in such a way that the rules generated by the structure will influence the origination and development of new businesses.

Krueger and Brazeal's (1994) model establishes additional relationships between perceptions of *desirability* and *feasibility*, the *credibility* of the ability to create businesses, the *potential*¹ and a “*precipitating event*” which triggers the move from intention to action, i.e. to the founding of a new business (figure 1).

Figure 1. Krueger and Brazeal's (1994) Model of a potential entrepreneur



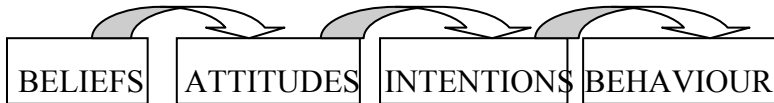
Source: Krueger and Brazeal (1994)

Veciana and Urbano (2004) suggest that this theory is complemented by Ajzen's (1991) Theory of Planned Behaviour (figure 2), according to which *an individual acquires one behaviour or another depending upon whether such behaviour has desirable or undesirable outcomes for that individual*. This is influenced by whether a certain behaviour is perceived favourably or unfavourably, i.e. how people in the individual's milieu (family, friends, ethnic groups, educational and professional contexts etc.) evaluate the behaviour, and, in the context of the current discussion, what they think about the decision to start a business. This theory sets out to explain and predict human behaviour in such a way that personal perceptions (perceived desirability and feasibility) do not act

¹ We believe that this “potential” can be provided by university education and the experience acquired through vocational training.

directly on intention but rather on attitude, since attitude really influences intentions which, in their turn, influence conduct. This theory can be applied to the creation of businesses (Krueger and Casrud, 1993) if it focuses on the individual's intention to act in accordance with a given behaviour, not in the short term but in the long term.

Figure 2. Theory of Planned Behaviour



Source: Ajzen (1991)

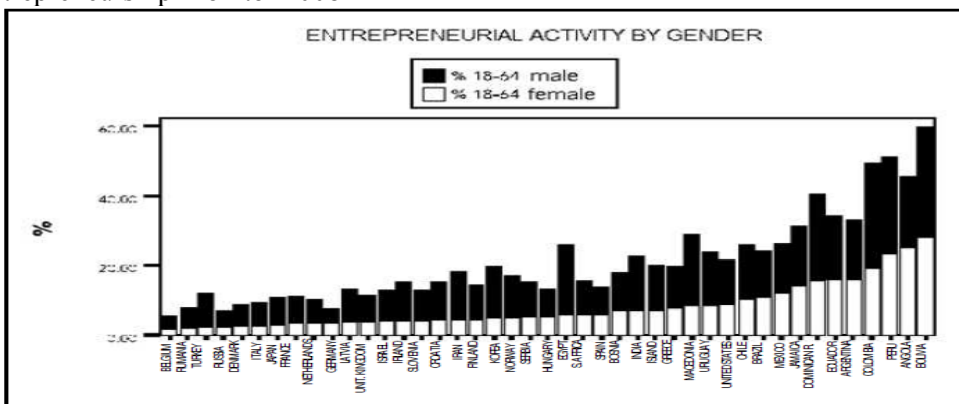
The gender dimension in the creation of businesses

Organisations created by women are becoming more and more common in most developed countries (Davidson and Burke, 2004), and the economic contribution that this phenomenon makes to society (Shaw et al., 2001) has thus resulted in an increase in the amount of academic research devoted to the figure of the female entrepreneur.

The first scientific articles focusing on female entrepreneurs appeared at the end of the 1970s in the United States (Green et al., 2003) and by the mid-1980s in the United Kingdom according to Carter et al., 2001. Since then, interest has concentrated on the following issues:

Gender differences in the proportion of entrepreneurs: virtually all studies agree that women are less entrepreneurial. Several national research projects report that the level of female entrepreneurial activity falls well below the male level: 26.57% in Spain (Díaz García and Jiménez Moreno, 2003), 26% in the UK (Carter, 2000), 25% in Sweden (Holmquist, 1995). Eurobarometer data (2007) show a notable difference in the percentage of women who would prefer self-employment given a choice (39.4% as opposed to 50.2% of men). And the differences persist with questions on such matters as whether respondents want to create their own business within the next five years (26.7% of women answering affirmatively as opposed to 33.4% of men) and whether it is considered feasible (26.1% as opposed to 37.6%).

Figure 3. TEA (Total Entrepreneurial Activity rate) for countries in the Global Entrepreneurship Monitor 2008



Source: GEM (2008)

All these data are confirmed by the results of the GEM report (2008) (figure 3), which show for a range of countries the percentages of men and women aged 18 - 64 who have started businesses, with a higher level for men in the vast majority of cases.

Gender-related differences in the reasons for creating businesses: though in some studies the motivations of men and women are regarded as similar, emphasising the need for achievement (Hisrich, 1990; Entrialgo *et al.*, 1999) or the need for independence (Jenssen and Kolvereid, 1992; Hup and Richardson, 1997), different results emerge from other research. Examples include the flexibility of working hours, which assumes greater importance for women (Brush, 1990; Hup and Richardson, 1997; Orhan and Scott, 2001), the higher value businesswomen bestow on social recognition and professional fulfilment (Glas and Petrin, 1998) or the greater need for autonomy and independence (Sarri and Trihopoulou, 2005)

Gender-related differences with regard to the barriers and obstacles to starting business activities: clear differences between men and women have been found in this area.. More importance is given, for example, by female entrepreneurs to the existence of a “glass ceiling” (Turner, 1993; Mitra, 1999). Moreover, women find it more difficult to obtain financial resources and human capital (Boden and Nucci, 2000; Pizarro Pacheco, 2008). Similarly, fear of failure is an obstacle of significant importance for women when it comes to creating businesses (Díaz Casero *et al.*, 2007b).

Other issues: gender perceptions in the evaluation of entrepreneurial activity (Fageson 1993; Hernangómez *et al.*, 2005); gender-specific features of entrepreneurial careers and in the promotion of new businesses (Belso Martínez, 2003); success factors and business outcomes according to gender (Díaz García and Jiménez Moreno, 2003)

The OECD (1997) considers research in this area to be of vital importance for understanding the social and economic implications of burgeoning female business activity, due to its enormous potential for innovation and job creation. One line of research must undoubtedly focus on the world of education, exploring the elements that shape entrepreneurial attitudes and culture amongst young people and gender-related differences in perception.

Universities and entrepreneurial spirit: Universities, as society's largest and most important organisations for the creation, storage and dissemination of knowledge, can occupy a strategic position today if they are prepared to play a decisive role in managing change; they are, after all, the leading providers of entrepreneurial culture and innovation to the student body. It is essential to ensure that graduates of both sexes, as well as being proficient in their respective disciplines, take on a positive commitment towards responsible action, that they are willing and able to conceive, undertake and lead new and innovative projects both in existing companies and institutions and in new businesses that they have created themselves. Therefore universities must facilitate and foster innovative and entrepreneurial attitudes. The experience of many countries shows that measures to assist business creation require a change in culture (social acceptance of the role of the entrepreneur in society), as well as an increase in the competences and skills of future entrepreneurs and professional managers, i.e. training. Policies have thus tended in the following direction: support for technologically innovative projects, promotion of university 'spin-off' projects etc; in recent years, these policies have been strengthened at university level by the creation of specialised teaching programmes and lines of research in the world's leading universities. Universities have taken a proactive role rather than simply reacting to student demand, not only out of a conviction regarding their obligation

to meet a social need by generating new projects and creating value and employment, but also out of their own self-interest.

To contribute to change, leading universities have taken initiatives such as: 1) instilling the elements of reflective thought, fostering research in this field 2) reforming curricula, incorporating disciplines designed to equip students with the required knowledge and attitudes, 3) creating organisations to promote the creation of businesses and 4) finally, developing new organisational and strategic plans intended to reflect the role of the entrepreneur

However, an ESIC (2006) report states that only 32.4% of university students in the Spanish region of Andalusia, to which the empirical part of the present research is confined, believe that universities foster the entrepreneurial spirit. Moreover, this study suggests that only 22.1% receive adequate training in business creation. Botham and Mason (2007) conclude that higher education does not in fact promote entrepreneurship. However, recent findings of the GEM report show that both graduates and postgraduates account for a higher percentage of entrepreneurial initiatives. Thus the GEM report in the United Kingdom suggests that 50% of new businesses started by young people in London were created by graduates (Botham, 2005). The most recent GEM report in Spain (GEM, 2008) contains the following findings: an increase in early-stage entrepreneurs (i.e. owning a business less than three and half years old) with a university education, rising from 29% in 2007 to 32.2% in Spain and 34% in Andalusia in 2008; similarly, both early-stage entrepreneurs and those with a business more than 42 months old increasingly have a university background (34% and 26.3% in Andalusia respectively), as do those with a firm intention to start a business within the next three years (29.6% are university graduates in Andalusia). The British NESTA report (2008) similarly concludes that universities constitute the best framework of support for generating entrepreneurial ambitions on the part of students.

Turning to the policies implemented by the state to guarantee gender equality within higher education, it is worth noting that in Spain, according to article 25 of Constitutional Law 3/2007, 22 March, which aims at effective equality between men and women, the following will receive active encouragement: “the inclusion in curricula of teaching material relating to equality between men and women; the creation of specific postgraduate courses and the undertaking of specialised studies and research into the subject”. One objective of this particular law is to foster equality of opportunity in gaining employment, including self-employment.

However, the literature specifically addressing entrepreneurial attitudes among university students by gender reveals significant differences both in Spain and at an international level: a smaller percentage of women regard the idea of creating a business as desirable (Genesca and Veciana, 1984; Rubio López et al., 1999); greater ambitions and more aggressive business goals have been recorded in male students (Wilson et al., 2004; Shay and Terjensen, 2005). The gender gap in entrepreneurial attitudes in higher education clearly persists (Hannon, 2004; Greene and Saridakis, 2007).

The following empirical study focuses on university students as a fundamental source of future entrepreneurs. In accordance with established lines of research in the specialised literature, the analysis concentrates on achieving a deeper understanding of gender differences for a variety of parameters: the desirability, intentionality and feasibility of business creation, the motivations and impediments to starting a business activity, attributes characterising an entrepreneurial attitude, and the student perception of the image of the entrepreneur.

3. Methodology

The empirical analysis is based on a fieldwork carried out at the University of Cordoba, Spain, under the auspices of the Social Council. A specially-adapted version of Veciana and Urbano's (2004) questionnaire was distributed among a universal population consisting of the entire student body of the University of Cordoba (15,660 students). The sample was designed using stratified sampling by teaching centre and the final sample comprised a total of 1,400 valid questionnaires, representing a response rate of 8.76% and a sampling error of 2.7% with a confidence level of 95%.

The statistical techniques used for this study encompass univariate analysis (frequencies and percentages) and bivariate descriptive analysis (Student t-test to assess the significance of the differences in means between sexes, contingency tables and Chi-square test to evaluate dependency between variables).

4. Results

The final sample consisted of a total of 616 responses from male students (44%) and 784 from female students (56%). These data were representative of the universal population, female students slightly outnumbering males at the University of Cordoba.

Breakdown of the sample by gender revealed no significant differences in terms of year of intake or age, but there were a markedly lower number of women in the so-called STEM subjects (science, technology, engineering and mathematics). The percentage of men was significantly higher in Engineering Sciences (19.9% vs. 3.8%) and in Mining and Public Works (4.6% vs 1.4%). By contrast, there were more women in degrees such as Education (17.8% vs. 7.4%), Labour Studies (13.1% vs. 6.7%) and Law and Business Administration (17.5% vs. 10.7%).

Finally, in this preliminary analysis of gender differences it is worth highlighting the significantly higher percentage of men with previous work experience (48.4% as opposed to 31.7% of women). This finding points implicitly to an early differentiating factor in the possible motivation for subsequent business creation.

4.1. Desirability, feasibility and entrepreneurial intention by gender:

As Table 1 clearly shows, there was no dependence relation between the perceived desirability of business creation and student gender. In both cases, the idea of entrepreneurship was seen as desirable. Nor was there any statistically-significant gender-related difference in perception of the feasibility of business creation now compared with feasibility in earlier decades, although women displayed a slightly less favourable perception.

Table 1. Desirability and feasibility of business creation by gender

View business creation as desirable	Men	Women
Yes	76.60%	74.50%
No	23.40%	25.50%
Contingency coefficient = 0.025 (p = 0.354)		
View business creation as easier or more difficult compared to earlier decades	Men	Women
Easier	49.40%	45.10%
More difficult	50.60%	54.10%
Contingency coefficient = 0.043 (p = 0.109)		

A dependence relation was noted, however, between gender and intention to create a business in the future (Table 2). Almost one in every three women indicated that she had never considered starting her own business, while for men this proportion dropped to one in four. The total percentage of women who had seriously considered, or had a firm intention of creating, a business was 13.6%, while for men the percentage for these combined categories was 24.1%.

Table 2. Intention to create a business, by gender

Intention to create a business	Men	Women
No, never	24.40%	32.00%
No, but intending to join family business	4.30%	2.50%
Yes, vaguely	45.20%	50.30%
Yes, seriously	17.00%	9.60%
Yes, firm aim of creating a business	7.10%	4.00%
Others	2.00%	1.60%
TOTAL	100.00%	100.00%

$$\chi^2 = 32.394 \text{ (p = 0.000) Contingency coefficient} = 0.152 \text{ (p = 0.000)}$$

A similar finding was reported by Díaz Casero et al. (2007a), who noted no dependence between gender and the desirability of creating a business, though they found a higher percentage of men with a serious intention of doing so. Women seem to harbour a higher degree of pessimism when it comes to their perception of opportunities as well as a greater fear of failure. Aponte's (2002) study also detected a lower willingness to take risks among women.

No statistically-significant gender-related difference was recorded in the students' perceptions of their own willingness to generate initiatives and ideas and put them into practice at work (Table 3). A large majority of both genders rated themselves highly in response to this question.

Table 3. Indication of personal entrepreneurship
(1-hardly at all entrepreneurial, 10-very entrepreneurial)

Serious intention of creating a business	Men	Women
Score 1-5	13.30%	15.90%
Score 6-10	86.70%	84.10%
TOTAL	100.00%	100.00%

$$\chi^2 = 14.392 \text{ (p = 0.109) Contingency coefficient} = 0.112 \text{ (p = 0.109)}$$

Image of the entrepreneur

One of questionnaire section required students to evaluate the extent to which they define the entrepreneur in present-day society in terms of a series of attributes. A Student t-test was carried out (Table 4) to ascertain the significance of differences in means by gender. Plus (+) and minus (-) signs are used to indicate the three attributes receiving the highest and lowest evaluations, respectively, in each case.

The results show a higher score in all categories from women, with significant differences in 11 of the 14 attributes. Both genders gave high scores for willingness to take business risks and the scope for earning money, but the former was rated higher by women, whilst the men gave a higher priority to the latter. The women give a high score to organisational skills, while the men emphasised the financial investment made by entrepreneurs in society.

The two attributes receiving low scores from both sexes were employment creation and idea of social justice. The women also gave a low score to the innovative outlook of current entrepreneurs while men scored the 'ethical and honourable' attribute lower.

Table 4. Student t test for evaluation of entrepreneurial image by gender
(1-minimum score, 4 maximum score)

Entrepreneurial attribute	Average for men	Average for women	t-student (significance)
1. Dynamic people	2.56	2.75	-3.783 (0.000*)
2. Organisation skills	2.64	2.80 (+)	-3.459 (0.001*)
3. Aptitude for finance and management	2.56	2.73	-3.591 (0.000*)
4. Innovative outlook	2.45	2.60 (-)	-2.990 (0.003*)
5. Professional training	2.61	2.71	-2.011 (0.045**)
6. Willingness to take business risks	2.68 (+)	2.85 (+)	-2.697 (0.007*)
7. Clear vision of the future	2.54	2.75	-1.993 (0.046**)
8. Invest money	2.72 (+)	2.79	-1.470 (0.142)
9. Create employment	2.45 (-)	2.57 (-)	-2.196 (0.028**)
10. Help country to develop	2.51	2.6	-1.716 (0.086)
11. High earners	2.83 (+)	2.83 (+)	0.018 (0.986)
12. Ability to dialogue with workers	2.58	2.69	-2.162 (0.031**)
13. Ethical and honourable people	2.44 (-)	2.64	-3.536 (0.000*)
14. People with idea of social justice	2.32 (-)	2.49 (-)	-2.866 (0.004*)

* Sig < 0.01; ** Sig < 0.05

4.3. *Evaluation of current professions*, Students were asked to rate on a 7-point Likert scale the importance of various professions in today's society. The results (Table 5) indicate a strong similarity between genders.

Table 5. Student t-test for evaluation of professions, by gender
(1-minimum score, 7- maximum score)

Profession	Mean for men	Mean for women	Student t-test (significance)
1. Teacher	4.22	4.34	-1.285 (0.199)
2. Lawyer	4.96	5.37	-4.912 (0.000*)
3. Doctor	6.01 (+)	6.36 (+)	-3.591 (0.000*)
4. Engineer	5.70 (+)	5.96 (+)	-5.113 (0.000*)
5. Economist	4.8	5.22	-3.542 (0.000*)
6. ENTREPRENEUR	4.96	5.28	-4.093 (0.000*)
7. Manager of a large company	5.38 (+)	5.61 (+)	-2.628 (0.009*)
8. Journalist	4.06	4.17	-1.355 (0.176)
9. Physicist	3.97	4.08	-1.178 (0.239)
10. Psychologist	4.18	4.54	-4.372 (0.000*)
11. Advertising executive	3.61 (-)	3.81 (-)	-2.373 (0.018**)
12. Chemist	3.76 (-)	4.01 (-)	-2.773 (0.006*)
13. Sociologist	3.57 (-)	3.58 (-)	-0.112 (0.911)
14. Translator/interpreter	3.88	4.21	-3.502 (0.000*)

* Sig < 0.01; ** Sig < 0.05

Although differences in mean scores were significant for 10 of the 14 professions, this was only because women gave higher scores in all cases. However, men and women agreed on the highest rated (doctor, engineer, manager of a large company) and lowest-rated professions (sociologist, advertising executive, chemist).

The profession of entrepreneur was ranked fifth by both genders, coinciding with results obtained in Portugal in research reported by Díaz Casero et al. (2007a)

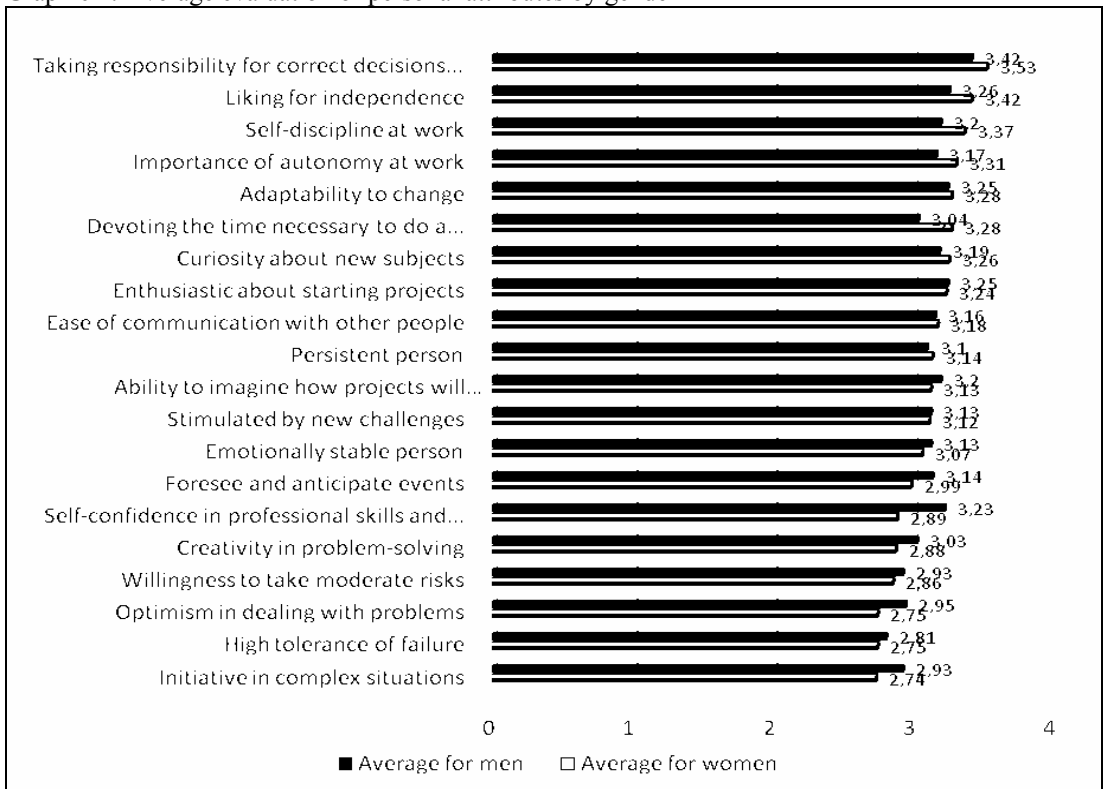
4.4. *The decision to create a business: motivations and impediments*

No significant gender-related differences were found for the motives that might lead a person to create his or her own business. For both genders, personal independence and

putting one's own ideas into practice were the most important motives, while the prestige attached to the figure of the entrepreneur or a tradition of business in the family were the least powerful incentives for entrepreneurship. Among male respondents, the scope for earning more money compared to working in a salaried position was ranked as the third most important motivation for entrepreneurship (62% chose this), while for women this aspect was pushed back to fifth place. This difference was also apparent in Eurobarometer (2007) data where, among the various motivations for creating businesses, 23.2% of men cited the possibility of securing a higher income as opposed to 17.5% of women who choose this answer. Turning next to impediments, despite the fact that for both genders the lack of capital and the high degree of risk were seen as the main difficulties facing an entrepreneur, the scores differed. Lack of knowledge regarding the running of companies and the fear of failure and ridicule also received a higher score from women. This matches the Eurobarometer (2007) data, in which the fear of failure was something that worried women to a greater degree (52.3% vs. 43.1% of men).

4.5. Perception of personal attributes. One questionnaire section required respondents to indicate the extent to which they think that they themselves have acquired one of a series of attributes, using a Likert scale from 1 – indicating very little of the attribute - to 4 - possessing the attribute in a high degree.

Graphic 1. Average evaluation of personal attributes by gender



Women perceived themselves more positively in terms of attributes such as responsibility, discipline and independence, and in qualities such as rigour at work, willingness to devote time to getting good results, as well as autonomy, self-discipline and independence. Similarly they saw themselves as more disposed to admit the consequences of their decisions, whether right or wrong. The men give themselves higher

scores than the women (who had significantly low man scores) for initiative, creativity, self-confidence and optimism.

5. Conclusions

Although in recent years women have been absorbed into the labour market on a massive scale, with numerous women occupying managerial positions, and despite the fact that women attending university outnumber men, we find that differences exist in terms of perceptions of entrepreneurship. Analysis of a sample of a university population comprising young people pursuing extremely varied qualifications provided an idea about their intentions towards entrepreneurial activity, and their probable professional future. The study confirmed that over the next few years women (at least those who attend university) are less likely than men to create businesses.

These findings agreed with those of carried out at a number of universities in Spain and elsewhere. Currently, only one in every five women at university contemplates the possibility of starting a business. University students evaluate differently their possession of various attributes of great importance to entrepreneurship: men consider themselves to have a higher degree of initiative, creativity, self-confidence, optimism and tolerance of potential failure, while women see themselves as harder-working, more self-disciplined, prepared to devote more time to obtaining results and with a greater fear of risk.

Society may not have fully succeeded in endowing to women with the self-confidence required to motivate themselves sufficiently towards entrepreneurship and overcome the constraints (largely psychological) that to some extent their professional scope.

It would also be instructive to carry out a longitudinal analysis to see whether the stated intentions towards entrepreneurial activity analysed here are borne out in the next few years by actions, that is to say whether business initiatives are actually started or not.

Many associations and groups organise support projects for women, to facilitate their entry into the business world: analyses of needs and of the problems of reconciling working and domestic life, the organisation of specific training events for professional and businesswomen, get-togethers and social networking for businesswomen etc. At EU level, the European Network to Promote Women's Entrepreneurship (WES) has been operating since June 2000 and has 17 members drawn from the EU, Iceland and Norway. However, it is important not to lose sight of the fact that all these efforts aimed at gender equality in the workplace have to be supplemented by the hard work and effort of women who wish to start out on the path of business creation.

Programmes and public policies aimed at assisting female entrepreneurship similarly have to take into account the profile and motivations of the women who want to create their own businesses in order to adapt to their needs. Instead of considering women as a single homogeneous group, it would be more useful to analyse their particular characteristics by segments differentiated by age, educational attainment, marriage status and domestic situation.

References

- Ajzen, I. (1991), "The Theory of Plannes Behavior", *Organizational Behavior and Human Decision Processes*, Vol. 50. pp. 179-211.
- Aponte. M. (2002), *Factores condicionantes de la creación de empresas en Puerto Rico: un enfoque institucional*, Universidad Autónoma de Barcelona, Barcelona.
- Belso Martínez, J.A. (2003), "Discriminación de género y fomento de nuevas empresas: Conclusiones a partir de un análisis multivariante sobre las pymes valencianas de reciente creación", *Revista del Ministerio de Trabajo y Asuntos Sociales*, Vol. 41, pp.15-38.

- Boden, R. J. and Nucci, A. R. (2000), "On the survival prospects of man's and women's new businesses ventures", *Journal of Business Venturing*, Vol. 15, n. 4, pp. 347-362.
- Botham, R. (2005), *Young People and Enterprise in London*. Report for the London Development Agency. http://www.lda.gov.uk/upload/rtf/Young_People_and_Enterprise_in_London_Final_Report.rtf
- Botham, R. and Mason, C. (2007), *Good Practice in Enterprise Development in UK Higher Education*, National Council for Graduate Entrepreneurship Research Report.
- Brockhaus, R.H. and Horwitz, P.S. (1986), "The Psychology of the Entrepreneur", in Sexton, D.L. and Smilor, W. [ed.]: *The Art and Science of Entrepreneurship*, Cambridge, MA: Ballinger Publishing Co., pp. 25-49.
- Brush, C. (1990), "Women and enterprise creation: barriers and opportunities". in Gould, S. & Parzen, J. (eds). *Enterprising Women: Local Initiatives for Job Creation*. OCDE. Paris.
- Carter, S. (2000), "Gender and Enterprise", in: Carter, S. and Jones-Evans, D. (eds.), *Enterprise and Small Business Principles, Practice and Policy*, Harlow: Prentice Hall/Pearson Education Ltd.
- Carter, S.; Anderson S. and Shaw, E. (2001), *Women's business ownership: a review of the academic, popular and Internet literature*. Department of Marketing, University of Strathclyde. www.berr.gov.uk
- CEDEFOP (1991), *Documento. Creación de empresas: políticas de apoyo y papel de la formación. Informes nacionales de Francia, Italia, España y Gran Bretaña. Informe de síntesis*, Oficina de Publicaciones Oficiales de las Comunidades Europeas, Berlín.
- Davidson, M.J. and Burke, R.J. (2004), "Women in management worldwide: facts, figures and analysis – an overview", in: Davidson, M.J., Burke, R.J. (Eds), *Women in Management Worldwide: Facts, Figures and Analysis*, Ashgate Publishing Limited, London, pp. 1-15.
- Delmar, F. y Davidsson, P. (2000), "Where do they come from? Prevalence and characteristics of nascent entrepreneurs". *Entrepreneurship and Regional Development*, Vol. 12, pp. 1-23.
- Díaz Casero, J. C.; Hernández Mogollón, R. and Raposo, M. (2007), "Estudiantes universitarios y creación de empresas. Un análisis comparativo entre España y Portugal", in Ayala Calvo (coord.): *Conocimiento, innovación y emprendedores: Camino al futuro*, pp. 1338-1352.
- Díaz Casero, J. C.; Sánchez Escobedo, M. C. and Postigo Jiménez, M. V. (2007b): "Mujer y creación de empresas en Extremadura: un análisis comparativo", in Ayala Calvo, J. C. (coord): *Conocimiento, innovación y emprendedores, camino al futuro*.
- Díaz García, C. and Jiménez Moreno, J. (2003), "Influencia del género en la actividad empresarial: Diferencias de resultados y factores de éxito". *XVII Congreso Nacional de la Asociación Científica de Economía y Dirección de Empresas*, ACEDE, Sevilla.
- Enríalgo, M.; Fernández, E. and Vázquez, C. (1999), "Las características del propietario/directivo de la PYME como factor determinante de su comportamiento emprendedor". *Boletín de Estudios Económicos*; Vol. 54, No. 168, pp. 405-424.
- ESIC (2006), "III Estudio sobre Vocación Emprendedora en Andalucía, 2006", *Andalucía Económica*, nº 181, October, pp: 14-28.
- Eurobarometer (2007): http://ec.europa.eu/public_opinion/flash/fl_192_en.pdf
- Fageson, E. (1993), "Personal value systems of men and women entrepreneurs managers", *Journal of Business Venturing*, Vol. 8; pp. 409-430.
- García Lillo, F. and Marco Lajara, B. (1999), "La creación de nuevas empresas como motor generador de riqueza y bienestar económico: factores de éxito y fracaso". *IX Congreso Nacional de ACEDE*, Burgos.
- Genesca Garrigosa, E. and Veciana Verges, J.M. (1984), "Actitudes hacia la creación de empresas", *Información Comercial Española*, n. 611, pp 147-155.
- Glas, M. and Petrin, T. (1998), "Entrepreneurship: new challenge for slovene women", in *Frontiers of Entrepreneurship Research*. Babson Park. Wellesley (Mass).
- Global Entrepreneurship Monitor (2008), *Informe ejecutivo Global Entrepreneurship Monitor-GEM España 2008*, Instituto de Empresa-Banesto, Madrid.

- Gonzalez Morales, M. O. (2001), "Actitudes y motivaciones hacia el trabajo y la creación de empresas según género", *Boletín Económico ICE*, n. 2709, pp. 21-29
- Green P., Gatewood, E. and Brush, C. (2003). *Women Entrepreneurs: Moving front and Center: An overview of research and theory*. United States Association for Small Business and Entrepreneurship. www.usasbe.org.
- Greene, F. J. and Saridakis, G. (2007), *Understanding the Factors influencing Graduate Entrepreneurship*, National Council for Graduate Entrepreneurship Research Reports, University of Warwick.
- Hannon, P. D. (2004), *Making the journey from student to entrepreneur : a review of the existing research into graduate entrepreneurship*, National Council for Graduate Entrepreneurship Research Reports.
- Hernández, E.M. (1995), "Les caractéristiques du travail du créateur d'entreprise", *Direction et Gestion des Entreprises*, Vol. 154, juillet-août, pp. 13-20.
- Hernangomez Barahona, J., Martín Cruz, N., Rodríguez Escudero, A.I. and Saboia, F. (2005), "¿El emprendedor nace o se hace? Un análisis de los determinantes del espíritu emprendedor", *XVI Spanish-Portuguese meeting of scientific management*. Sevilla, pp. 33-44.
- Hisrich, R. D. (1990), "Entrepreneurship/Intrapreneurship", *The American Psychologist*, Vol. 45, n. 1, pp. 209-222.
- Holmquist, C. (1995), Den kvinnliga företagaren: Kvinna och/eller företagare? (The female entrepreneur woman and/or entrepreneur?), in NUTEK B:3 Pengarna och livet. Perspetiv på kvinnors företagande (Stockholm: Närings-och teknikvecklingsverket), pp. 89-112.
- Hup, A. and Richardson, P. (1997), "Business ownership as an economic option for middleincome educated urban women in Bangladesh", in *Frontiers of Entrepreneurship. Research*. Babson Park. Wellesley (Mass).
- Jenssen, S. and Kolvereid, L. (1992), "The entrepreneurs' reasons leading to start-up as determinants of survival and failure among norwegian new ventures", in *International Perspectives on Entrepreneurship Research*. Birley, S. And MacMillan, I. (eds.). Elsevier Science Publishers B.V. Londres.
- Kham, A.M. (1986), "Entrepreneur Characteristics and the Prediction of New Venture Success", *OMEGA International Journal of Management Science*, Vol. 14, No. 5, pp. 365-37
- Kolvereid, L. (1997), "Prediction of employment status choice intentions", *Entrepreneurship Theory and Practice*, Vol. 21, n. 1, pp. 47-57.
- Krueger, N. and Brazeal, D. (1994), "Entrepreneurial Potencial and Potencial Entrepreneurs". *Entrepreneurship Theory and Practice*, Vol. 18, No. 3, pp. 91-104.
- Kruegel, N. and Casrud, A. (1993), "Entrepreneurial intentions: applying the theory of planned behaviour", *Entrepreneurship and Regional Development*, Vol. 5, pp. 315-330.
- MacMillan, I.C.; Siegel, R.; and Subba Narashima, P.N. (1985), "Criteria Used by Venture Capitalist to Evaluate New Venture Proposals", *Journal of Business Venturing*, Vol. 1, No.1, pp. 119-128.
- Mathews, H. and Moser, S. (1995), "Family background and gender: implications for interest in small firm ownership", *Entrepreneurship and Regional Development*, vol. 7, n. 4, pp. 365-377.
- McDougall, P.P.; Robinson, R.B.; and Denisi, A.S. (1992), "Modeling New Venture Performance: An Analysis of New Venture Strategy, Industry Structure, and Venture Origin". *Journal of Business Venturing*, Vol. 7, pp. 267-289.
- Mitra, R. (1999), "The growth pattern of women run enterprises: an empirical study in India", in *Frontiers of Entrepreneurship Research*. Babson Park. Wellesley (Mass).
- Naffziger, D.W.; Hornsby, J.S.; and Kuratko, D.F. (1994), "A Proposed Research Model of Entrepreneurial Motivation", *Entrepreneurship Theory and Practice*, Spring, pp.29-42.
- NESTA (2008), *Developing Entrepreneurial Graduates: putting entrepreneurship at the centre of higher education*, NESTA, London.

- OECD (1997), "Women Entrepreneurs in SMEs: A Major Force in Innovation and Job Creation", *Synthesis of the OECD Conference*, www1.oecd.org.
- Orhan, M. and Scott, D. (2001), "Why women enter into entrepreneurship: an explanatory model", *Women in Management Review*, Vol. 16, n. 5, pp. 232-47.
- Pizarro Pacheco, I. (2008), El reto de emprender en femenino, www.gipuzkoaemprededora.net/boletines/es/isabel_pizarro_intervencion.pdf
- Rubio López, E.A., Cordon Pozo, E. and Agote Martín, A.L. (1999), "Actitudes hacia la creación de empresas: un modelo explicativo", *Revista Europea de Dirección y Economía de la Empresa*, Vol. 8, n. 3, pp. 37-51.
- Sandberg, W.R. and Hofer, C.W. (1986), "The Effects of Strategy and Industry Structure on New Venture Performance", in Ronstadt, R.C.; Hornaday, J.A.; Peterson, R. and Vesper, K.H. [ed.]: *Frontiers of Entrepreneurship Research*, pp. 244-266. Wellesley, MA: Center for Entrepreneurial Studies, Babson College.
- Sandberg, W.R. and Hofer, C.W. (1987): "Improving New Venture Performance: The Role of Strategy, Industry Structure, and the Entrepreneur", *Journal of Business Venturing*, Vol. 2, No. 1, pp. 5-28.
- Sarri, K. and Trihopoulou, A. (2005), "Female entrepreneur's personal characteristics and motivation: a review of the Greek situation", *Women in Management Review*, Vol. 20, n. 1-2, pp. 24-37.
- Scherer, R. F.; Adams, J. S.; Carley, S. S. and Wiebe, S. A. (1989), "Role model performance effects on development of entrepreneurial career preference", *Entrepreneurship Theory and Practice*, Spring, pp. 53-71.
- Shaw, E.; Carter, S.; and Brierton, J. (2001), *Unequal entrepreneurs: Why female enterprise is an uphill business*, The Industrial Society, London.
- Shay, J., and Terjensen, S. (2005), "Entrepreneurial aspirations and intentions of business students: A gendered perspective". *Paper presented at the Babson Entrepreneurship Conference*, Boston, MA.
- Stuart, R.W. and Abetti, P.A. (1987), "Start-up Ventures: Towards the Predictions of Initial Success", *Journal of Business Venturing*, Vol. 2, pp. 215-230.
- Stuart, R.W. and Abetti, P.A. (1988), "Field Study on Technical Ventures- Part III", in Kirchhoff, B.; Long, W.; McMullan W.E.; Vesper, K.H. y Wetzel, W., Jr. [ed.]: *Frontiers of Entrepreneurship Research*, pp. 177-194. Wellesley, MA: Center for Entrepreneurial Studies, Babson College.
- Turner, C. (1993), "Women's business in Europe: ECC initiatives", in: Allen, S. and Truman, C. (eds). *Women in Business: Perspectives on women entrepreneurs*. Routledge. London.
- Veciana, J. M. (1999), "Creación de empresas como programa de investigación científica". *Revista Europea de Dirección y Economía de la Empresa*, vol.8, nº.3, pp. 11-36.
- Veciana, J. M.; Aponte, M. and Urbano, D. (2005), "University student's attitudes towards entrepreneurship: a two countries comparison", *International Entrepreneurship and Management Journal*, Vol. 1, pp. 165-182.
- Veciana, J.M. and Urbano, D. (2004), "Actitudes de los estudiantes universitarios hacia la creación de empresas: un estudio empírico comparativo entre Catalunya y Puerto Rico", *El emprendedor innovador y la creación de empresas de I+D+I*, Universidad de Valencia, pp. 35-58.
- Wilson, F., Marlino, D., and Kickul, J. (2004). "Our entrepreneurial future: Examining the diverse attitudes and motivations of teens across gender and ethnic identity", *Journal of Developmental Entrepreneurship*, Vol. 9, pp. 177-197.