



CHALLENGES FACING WOMEN ENTREPRENEURS IN ECONOMIES IN RECESSION. THE SPANISH CASE

Fernando Crecente Romero, University of Alcalá, Spain¹;
Teresa del Val Núñez, University of Alcalá, Spain;
Zoi Mella, University of Alcalá, Spain

Abstract. During periods of economic recession public institutions focus their actions on accelerating the transition from a managed economy to an entrepreneurial economy. In the latter case, it is extremely useful to analyze the entrepreneurs characteristics and the results achieved by their companies, in order to have adequate aid policies tied to the creation of companies according to their real needs.

This knowledge is currently needed even more, given the growing participation of women as entrepreneurs and the development of new economic, social and regional policies that tend to promote female entrepreneurial activity.

The analysis, focusing on gender, is part of the result of a survey conducted in 2009, with two hundred fifty-one (251) answers from a sample of female Spanish entrepreneurs and three hundred fifty-seven (357) answers from a representative sample of the entire Spanish business community.

On the other hand, statistical techniques used in the analysis of the questionnaires search for evidence of female entrepreneurial activity tied to a business strategy based on market opportunities or the development of product policies / innovative processes generated by competitive advantages. In particular, we emphasize the technological effort and the existence of cooperation agreements in the field of innovation with companies and other agents. We take into consideration variables such as demographic, sectorial, psychological, environmental, organizational and the influence of public policies.

The characteristics of female entrepreneurs, that are deduced from the analysis, recommends a major effort and action balanced by public institutions in order to involve the entrepreneurial women in innovative activities that reinforce the global competitive environment (policies of stimulation of I+D+i, of technological cooperation, product design, reinforcement of sectorial and territorial clusters etc.) and favour the establishment of entrepreneurial women, creative and Schumpeterian, indispensable to the progress of the entrepreneurial fabric and the national economy.

Key words: *woman; entrepreneurial factors, innovation; public aids*

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¹ Corresponding author – e-mail address: mteresa.val@uah.es, telephone: +349 18854200



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Introduction

Women's influence in the development of the economy represents an important phenomenon among the social changes developed during the 20th Century, and their professionalism and leadership in certain economic and business areas is an accepted fact in the last decades. Bonano (2000) considers that one of the main strengths that will drive the general economy during the 21st Century will be the emergence of women in economic and entrepreneurial activity, something that politicians will not be able to ignore. Furthermore, the change in model from a management economy to an entrepreneurial economy as well as the progressive incorporation of women into these areas has meant the development of new economic policies – including those of a regional character – that try to stimulate female entrepreneurial activity, so it is important to both study and compare the characteristics of women entrepreneurs and the results their companies have to offer.

This paper considers a series of behavioural variables associated with entrepreneurial activity and is structured into two sections that search for specific aspects of entrepreneurs, specifically women entrepreneurs. The first studies the factors that allow the collection of the components that determine the Spanish women's entrepreneurial activity as well as groups or clusters of women entrepreneurs depending on the mentioned factors. The second analyses and looks for evidence of creative entrepreneurial activity, that is to say, that which has committed to business strategies based on sectors, innovative or dynamic market opportunities that generate emerging products. Both are interesting regarding the environment of regional and economic policies, particularly those referring to the promotion of two complementary entrepreneurial and economic areas: on the one hand, stimulating entrepreneurial activity with supporting policies that would reduce the barriers of entry and exit of companies into markets, and also, supporting policies for a competitive environment so that potential entrepreneurs could choose with greater probability competitive and innovative entrepreneurial projects, those situated closer to the "entrepreneur schumpeteriano environment".

Regarding institutional norms and their influence on the promotion of entrepreneurial activity by women, the second OCDE Conference of Ministers (2004) responsible for small and medium companies established a series of policy recommendations in order to incentivize entrepreneurial women. Among those, we can mention the following: a) increase the participation of women in the labour force, help support measures for the caring of children and equal treatment in the work place; b) include women entrepreneurs in the area of small and medium company policies; c) promote the development of entrepreneurial women networks; d) create public offices which promote and give voice to women entrepreneurs and e) evaluate periodically the impact of these policies on the success obtained in female entrepreneurial initiatives. Keeping in mind that the main investigation point as well as the policies and programs developed in recent years, normally do not take into account the specific aspects of women, these recommendations are developed to overcome market errors derived from gender discrimination which makes harder the possibility of women becoming entrepreneurs the same as men.

Sources of information and data bases

To know the personal characteristics and management strategies of Spanish business men and business women a study has been carried out using their direct input by means of specific questionnaires. To that purpose, in the investigation, two questionnaires have been designed: the first one focuses on a group of female entrepreneurs and the second one refers to a representative group of business people from the Spanish business network – according to the Directorio Central de Empresas (Central Directory of Firms) its distribution is based on size and sectors – Both questionnaires, count on common questions and questions designed according to the entrepreneur's idiosyncrasies. The field work, done by sending



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questions via postal mail and then following up on each case, has been carried out by the specialized questionnaire company (*Dephimatica*).

The universal sample made up of the total number of companies contained in the SABI data base in its version of February 28th, 2009, consisted of 678,860 units with complete registers available. Of the universal sample of companies in SABI, a random sample has been chosen stratified into size and sectors (with special attention given to a certain percentage based on a company's age and location) at a significant level ninety-five (95%), obtaining a random size of 16,250 companies. Following the two above mentioned criteria from that sample, the companies managed by women total 3,124.

Regarding the questionnaires sent to the group of business women, the goal is to obtain three hundred (300) valid questionnaires representing the opinion of the group of entrepreneurial women, so in order to obtain that number of responses a sample of nine hundred (900) companies were chosen to whom questionnaire were sent. From this questionnaire that was sent to the entrepreneurial women, we received two hundred fifty-one (251) completed questionnaires. Regarding the questionnaires sent to representative business group from the Spanish business network the goal was the same, that is, to obtain another three hundred (300) questionnaires representing the opinion of the entire business group. Three hundred fifty-seven (357) completed questionnaires were received.

Methodology

The analyses uses psychological, demographical, sectoral, environmental, organizational and is also influenced by public policy demographics. Through the use of descriptive and multivariable techniques the trends of the answers are analysed, in addition to making comparisons between the different groups being considered, comparisons are also made according entrepreneurs' gender.

This way, the descriptive analysis is developed in three sequences: the first one offers the profile and characterization of the entrepreneurs both male and female; the second one, a multivariable study of the main components that permit obtaining a group of factors explicative of the entrepreneur activity. For the factorial analysis questions and answers have been used that contain an evaluation by the employer through the procedure of 'Likert scales' or similar (very important, not important, etc.). With these results evaluative and other characterization regarding the businessmen or of the company, there has been created a set of forty (40) variables of which a study has been conducted of factors that characterize the entrepreneurial spirit and its relationship to the performance of the company. These factors, through cluster analysis, will provide the basis for determining homogeneous groups of businessmen according to their most determinate factors. And finally, the third stage explores the competitive creative capacity of business owners, especially the female entrepreneurs, using cross-tabulations of the results of the questions related to growth policies, product development, number of degree graduates in the company, R & D & I policy and choice of strategic business decisions. The use of the chi-square test determines whether there exist significant differences between the groups considered. Equally this statistical technique will be applied to learn the motives as to why the business men / business women decided to establish a business in a given place, time and specific sector.

Valuation of the determining variables of entrepreneurship: The case of female entrepreneurs

To find out what the main motives are that would cause a person to make the decision to become an entrepreneur, was included in the questionnaire as a series of questions concerning motivational variables, key to the survival of the business project and evaluation of public policies. Furthermore, variables as to the



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characteristics of the entrepreneur and his company, were previously transformed into Likert scale. All these variables show the different dimensions that define the multidisciplinary concept of a business owner (demographic dimension, psychological, organizational and strategic, economic environmental-sector, institutional policies, etc.). A total of forty (40) variables have been selected and grouped into five thematic sections: motivational factors for survival, valuation of public policies aimed at creating companies, the demographic profile of the business owner and characteristics of the company and its environment. As suggested by the works of Lafuente and Salas (1989), Lumpkin and Dess (1996), Baum, Locke and Smith (2001) and Grundry and Welsch (2001), the combination of the individual variables of the business owner and the environment enables a multilevel analysis that is able to explain both the components and the degree of importance of entrepreneurial activity. Table 2 shows, on the one hand, the valuation of the variables for the business women sample and the sample of entrepreneurs from the Spanish business group structure.

The results confirm that the enterprises are positively conditioned by motivational variables and survival factors and to a lesser extent, by the stimulation of public policies for the creation of businesses. Business owners looking to improve their quality of life through obtaining higher revenues to compensate for their effort and dedication. Specifically, the most valued variables are: autonomy, achieving self-realization, to be the leader of your own business, obtaining a sufficient level of income to make money in line with the effort reached values greater than 4 out of 5. At the other extreme, the variables least variable are the availability of leisure time and obtaining social recognition, with a value below 3 out of 5.

Among the variables that influence the survival of the company, having a good product is the only variable that gets the highest rating, with a note greater than four (4) on average. This is followed by the existence of a good corporate culture. On the contrary, in reality, the availability of financial resources is increasingly important to both initiate and to consolidate a business. Meanwhile, technological effort, is considered as “something important” to support the consolidation of the company. In relation to the valuation of public policies in Spain, it stands out that business owners underestimate public policy for the creation of businesses in relation to the other factors of business survival. None of the evaluations are above three (3) points out of five (5), whereas a lower valuation is given relative to taxation.

Table 1

Determinant Factors of entrepreneurship: The case of business women

Description of the variable	Measuring scale	Year 2009 – Total Entrepreneurs		Year 2009 – Women	
		Average	Standard Deviation	Average	Standard Deviation
<i>Motivational variables</i>					
Autonomy	Likert Scale (1 – “not important” to 5 – “very important”)	4.37	0.97	4.37	0.96
Having free time		2.61	1.52	2.68	1.49
Pick work location		3.38	1.44	3.54	1.48
Prioritize family life		3.45	1.33	3.68	1.38
Attain self-realization		4.16	1.09	4.16	1.14
Work at my own pace		3.89	1.27	4.10	1.17
Contribute to society		3.58	1.28	3.76	1.29
Be the boss of your own		4.18	1.03	4.17	1.05
Accept a challenge		3.93	1.22	3.97	1.21
Show off personal abilities		3.27	1.36	3.70	1.33
Achieve social recognition		2.91	1.31	3.35	1.35
Reach a sufficient income level		4.00	0.99	4.19	0.97
Earn a high salary		3.41	1.16	3.66	1.17
Be paid according to effort		4.05	1.07	4.27	1.04



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Description of the variable	Measuring scale	Year 2009 – Total Entrepreneurs		Year 2009 – Women	
		Average	Standard Deviation	Average	Standard Deviation
Survival Factors					
Have adequate product/service	Likert Scale (1 – “not important” to 5 – “very important”)	4.46	0.84	2.95	1.46
Availability of financial resources		3.35	1.38	3.56	1.17
Good market expectations		3.46	1.2	3.78	1.46
Good company culture		3.89	1.29	3.56	1.30
Technological effort achieved		3.38	1.32	1.46	1.21
Valuation of public policies					
Social Security benefits promote the creation of companies	Likert Scale (1 – “not important” to 5 – “very important”)	2.80	1.56	2.55	1.22
National government policies in relation to the creation of companies		2.41	0.98	2.22	0.95
The policies CCAA creation of companies		2.56	0.97	2.32	0.95
The red tape in the creation of companies		2.91	1.04	2.43	1.00
Tax regulation in the creation of companies		2.37	0.99	2.25	0.98
Rules are predictable and consistent		2.53	0.86	2.43	0.87
Government policies: Education		2.60	1.006	2.45	1.02
Policies of physical infrastructure		2.69	0.887	2.59	0.90
Policies regarding infrastructure and technologies		2.75	0.895	2.65	0.90
Characteristics of the business person					
Age	Scale 4 posic.	2.27	0.99	2.14	0.98
Professional experience	Scale 4 posic.	3.12	0.883	2.83	0.96
Level of decision making	Yes = 1; No = 0	0.61	0.49	0.71	0.46
Existence of another business owner family	Yes = 1; No = 0	0.64	0.49	0.63	0.48
Family experience related to activity	Yes = 1; No = 0	0.44	0.47	0.60	0.49
Previous company experience related to activity	Yes = 1; No = 0	0.50	0.5	0.30	0.46
University studies	Yes = 1; No = 0	0.39	0.48	0.21	0.41
Characteristics of the company/environment					
Age of company	Scale 4 posic.	1.33	0.52	3.52	0.63
Percentage of stock of principal shareholder	Scale 3 posic.	2.75	0.66	2.73	0.68
Size (based on number of employees)	Scale 4 posic.	1.29	0.59	1.29	0.55
Concentration of sales (3 main clients)	Scale 4 posic.	1.92	1.02	1.36	0.78
Activity sector	Scale 3 posic.	2.58	0.68	2.85	0.45

Source: Self developed based on questionnaire

By its part, the block associated with the business owner profile reveals the following characteristics: the Crisis and necessity have converted entrepreneurship into a feasible alternative for people under thirty-eight (38) years of age (25.07% of the cases); a lot of prior business experience in the management of other companies and concentration of all strategic decisions (financial, production, human resources, etc.) in the entrepreneur/owner-for sixty-one (61) percent of business. Family tradition is a significant factor in starting a new activity, given that sixty-four (64) percent count with having another business owner in the family, although the development of activities occurs in sectors different from other relatives (only forty (40) percent in the same sector as the family). Regarding educational levels, only forty (40%) of respondents have a college education.



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Finally, with respect to the group of variable characteristics of the company, in more than seventy-five (75%) of cases the promoting business owner counts on more than one hundred (100%) on social capital given to his micro company dedicated to the service sector. On the other hand, the surveyed companies have an average of sixteen (16) years, and even though they operate in seven business sectors according to the NACE 2009 to double digits, for the study they have been grouped into three core basic business activity sectors.

Below are the main differences found in the group of business women regarding the general group of business owners. Thus, women choose to start a business to reaffirm themselves in society, displaying their personal skills and seek social recognition (mean of 3.35 compared to 2.91 for total business owners). Regarding personal motivations that have influenced the decision to become a business owner, the group of women give a higher valuation to obtaining income, as well as the possibilities that setting up a company allow in prioritizing work and family life. These situation results are consistent given the greater number of dependents and the number of daily hours devoted to home care that supports the group of women over other entrepreneurs. In assessing survival factors also appreciated are different behaviours, in particular, women entrepreneurs consider unimportant technological effort in product or process innovations (mean of 1.46 versus 3.38 for the rest of business owners) and product or service have a right to market (mean of 4.46 to 2.95 compared for the rest). Of the other survival factors, the business women considered very important the provision of financial resources. Moreover, the business women underestimate all public policies aimed at the creation of companies, especially those relating to the red tape and bureaucracy during fundamental moments of society.

Finally, the main difference between the characteristics of business women from the rest of the business owners surveyed is less professional experience. Only thirty (30) percent of the business women businesses are related to their previous activity. By contrast, the family experience related to current activity is another factor determining the incorporation. Regarding the type of company stresses that well established businesses in the market, for over 16 years, with a strong presence in the non-commercial services sector, explains the low dependence on its three main customers.

Underlying factors of entrepreneurship in Spanish women

The high number of determinant variables of entrepreneurial spirit predicts its reduction through factor analysis, with the purpose of obtaining a set of core components of entrepreneurial activity, particularly because of gender of the business owner. To achieve this objective we have developed two analysing factors: one for all entrepreneurs and the second analysis specifically focuses on the group of women business owners. The significance of Bartlett's test, and the result of the correlation matrix -0.000 – is indicative of the existence of linear relationships between the variables, verifying the suitability of the factorial analysis applied. Only as a result are the results of the factor analysis of women's group presented. The analysis allows for the extraction of 11 factors, containing 58.59% of the variance variables for the sample of women.

The first factor is made up of all the variables associated with the valuation of public policies (economic services, fiscal and administrative) to support the creation of a company. Items with higher saturation level are those relating to national and regional policies to encourage entrepreneurship and to a lesser extent the administrative and tax incidence in the creation of the company. This factor reflects 12.3% of the total variance. This factor has been called "contribution of public support".

The second factor includes the following items: contribution to society, accepting a challenge, exhibit personal abilities, obtain social recognition and self-realization. This factor reflects 6.63% of the total variance. This factor represents the psychological dimension of the business owner, which is why it has been called "need for personal and social achievements".



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The third and fourth factors that better explain the entrepreneurial activity is “autonomy” and “obtaining income”. The degree of explanation of the variance is 5.4%. The factor “obtaining income” is composed of the variables to achieve a sufficient level of income, high profits and to make money in line with the exerted effort. The current economic situation highlighted as in times of economic growth and stability of the environment, obtaining income may encourage a person with an entrepreneurial spirit to go from being a potential business owner to being a business manager, replacing their current remuneration cash (wages, unemployment benefits, etc.) for the benefits the activity reports. However, in times of recession monetary motivation is less valued against the security of their compensation as an employee for someone else. For its part, the factor that includes the variables: working for yourself, being the boss of your own business, autonomy and choosing the location of the job (female sample) or self-realization (sample track), has been called “autonomy”. Therefore, the items with higher saturation are those relating to monetary incentives and less motivation associated with self-directing.

The fifth and sixth factors are associated with the variables related to the company’s survival and improved quality. The factor designated as “survival” (4.6% of the total variance) collects the five variables concerning the requirements that all companies must meet to ensure their survival (ordered by high levels of saturation): good market expectations, availability of financial resources, having a good corporate culture and having a product / service to meet the needs of your demand. With regard to personal welfare improvement involving the creation of a company, it has been defined as a factor called “quality of life” that tends to have free time, prioritize family life and the business relationship established with the previous activity. In analysing the explanatory weight of these components it can be confirmed as for women creating a company that just lets you enhance the reconciliation of personal and family life, as this factor only accounts for 4.6%.

Between the seventh and eleventh factor are the following: the seventh factor designated as “family tradition” (3.28%) is composed of the variables: existence of another business owner in the family and the family experience related to the activity. Both are positively correlated with the factor. The eighth factor is the factor designated as “sector-market breadth” (3.31%) composed of variables and sector concentration of sales (three main customers). The ninth factor is designated “accumulated experience” (4.28%) for the three variables which, in this order, include: the age of the entrepreneur, the age of the company and the percentage of shares held by the principal shareholder. Therefore, the factors associated with previous experiences (whether personal, work or family) are the ones that least explanation present. The tenth factor, explaining 3.82% of the variance is positively correlated with university studies, firm size and concentration level of decision making. This positive relationship may indicate that business women that finish their university studies utilized mainly micro companies as the legal form and assume most of the decisions, and as the businesses grow in size, they begin to decentralize decision-making. This factor has been designated “business size”. Meanwhile, the eleventh factor (3.31%) includes some of the variables associated with professional experience and technological effort realized. As you gain experience in managing a business and its main activity the latest technology gets incorporated hence the name that this factor receives is “technological learning”.

Groups of business women and characteristics of each group of business women

With the eleven factors identified a Cluster analysis was performed. The process of generation groups by the Howard-Harris algorithm is presented in Figure 1. This methodology creates homogeneous groups of individuals based on higher variance factors. The first division was made based on factor 9, accumulated experiences, yielding two groups (96 and 141 individuals respectively). In the second stage factor 8, sector-market breadth, is responsible for creating division, obtaining in this case three groups (83, 93 and 61). In the third stage factor 10, company size, provides four groups (69, 47, 57 and 64).



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Finally, in the fourth stage, through factor 7, family tradition, the five groups are obtained. The validation of this grouping has been done through discriminant analysis. Below are the characteristic features of the five groups formed.

The first group consists of forty-nine (49) entrepreneurs. This group is defined positively by the satisfaction of the need for achievement and social recognition that running their own business brings them. They also have the greatest family tradition in the sector in which they carry out the activity. On the other hand, they consider important public policies in the creation of companies and the factors associated with the survival of the company. The low value of the later two factors could be explained by the way they entered the business through an inheritance or a family donation. For these reasons, they have been designated as “family business owners”.

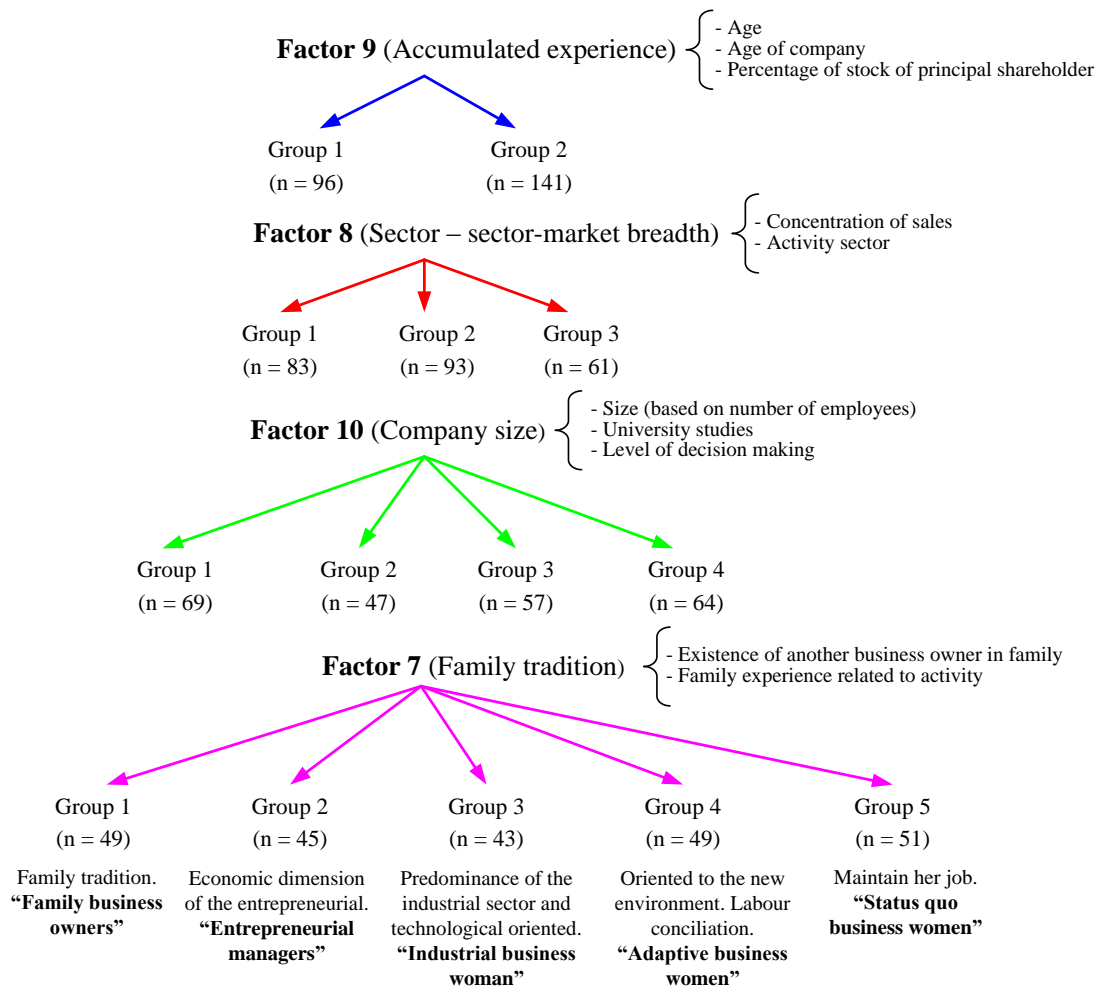


Fig. 1. Creation of groups for the sample of the women business

The second group, consisting of forty-five (45) business women are characterized by the high value they attach to public policies and the creation of businesses, obtaining income according to the effort



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exerted and the high regard of the determining factors for the survival of the company. On the other hand, the least value autonomy involved the management of a company. In addition, the ample professional experience they demonstrate and the low emphasis placed on the ability to reconcile work and family describe a type of business women fully committed to your business. Therefore, the strong economic dimension of the entrepreneurial concept present in this group of business women cause them to be designated as “entrepreneurial managers”.

The third group of forty-five (45) business women is characterized by the lack of valuation of the factor associated with the sector and market breadth. This situation indicates that it is dealing with business women dedicated to non-commercial activities. Of the remaining explanatory factors of entrepreneurial activity, even though it does not represent an extreme value, highlighted by the low attention to obtaining income and high personal experience gained in other business activities like the importance given to technological factor as a means to ensure survival of the company. This group has been designated as “industrial business women”.

The forty-nine (49) entrepreneurs that make up the fourth group, those with less professional experience, primarily value autonomy and the ease to reconcile family and professional life which comes from running their own company. This assessment is consistent with the high value they attach to the technological experience given that new technologies allow the performance of basic business activities from their own homes. For this reason, it has been designated “adaptive entrepreneurs”, the high adaptability to working hours and high strategic opportunities are offered by information technology and communication.

The fifth and final group, consisting of fifty-one (51) business women, is characterized as being the oldest in age and being the oldest companies. They stand out as being the least that value technological effort, and the least needing to showcase their achievements and in obtaining income. These defining features seem to describe a type of business women who has carried out the same activity for a long period of time and has managed to establish herself in the market. For this reason they have been designated “status quo business women”.

Women and creativity variables

Three of the questions, considered in the questionnaire, refer to the motive that the business owner used to decide to start his business activity in a particular industry, at that time and in a certain location. Table 2 presents in an unavailable manner the distribution form of the responses.

Table 2

Choice of business based on location, time and sector by gender (percentages)

Motives	Localization		Time		Sector	
	Follow up	Women	Follow up	Women	Follow up	Women
Family business	40.10	42.09	39.64	39.47	-	-
Strategic opportunity	29.78	33.62	29.85	33.07	28.12	27.45
Available resources	25.21	24.29	23.38	19.20	-	-
Experience/ knowledge	-	-	-	-	53.08	53.53
Special sector zone	-	-	-	-	13.88	9.24
Other reasons	4.91	0.00	7.13	8.27	4.92	9.78
Total	100.00	100.00	100.00	100.00	100.00	100.00



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The choice of a specific location is based on reasons of proximity to the personal home or the family, although women in the sample of this factor are situated two percentage points above the follow-up sample. This decision is reproduced when the temporary choice is considered, where 39.5% of the responses focused on personal issues, for example, a succession or inheritance of the company. Meanwhile the choice of sector appears determined by previous experience and knowledge previously acquired in a similar business or family business, as more than half of the responses focus on this possibility. Second, for the three categories of factors the answers relate to the motives of strategic opportunity, sector or market. Specifically, almost three out of every ten answers are found in these motives. Thirty-three (33) percent of the collective responses of the women show they chose the location of their business and the specific time by having spotted some type of opportunity such as the absence of companies engaged in this activity in the area. Nevertheless, the choice regarding activity sector by detecting an opportunity in the sector there only exists differences by gender. Third, the motives are different. If the location is a consideration, then one of four responses manifests the choosing of the location for being an area with wide availability of resources, both economic, human and material. The percentage of responses is slightly lower if you consider the available resources at the time, and especially the sample of women that seem to demonstrate a reduced availability of resources to establish the company. Finally, the business owners stated that the decision to create the company does not belong to any of the previous reasons.

Finally we analyse the relationships existing between the groups of business owners determined under the performed cluster analysis and various indicators associated with greater dynamism and creativity of entrepreneurial behaviour (product development, R & D, qualification of personnel, growth strategies, etc.). That is, we try to identify within the cluster characteristics of the same according to the indicators used, explain what group shows more dynamism, creativity and is forward-looking. In table 3 we present the relationship of indicators of entrepreneurial creativity with the identified cluster.

The results obtained, in the first place, present the average values of each variable, with respect to the total number of individuals, and second presents the situation that creates the distinct groups based on the average provided by the individuals composing each. Thus, if the group average is above / below the mean value of the global sample it is inserted positive / negative sign. However, if the sign + / - is accompanied by an asterisk (+ * or - *) this indicates the presence of more distant values above / below the mean. Finally, the statistical significance is shown (by using the chi-square). At a significance level of ten (10) percent the variables are found: choice of the business for strategic opportunity in time, strategic opportunity in the sector and the number of graduates. By contrast, there do not exist significant differences between the groups considered for variables related to the type of product / service offered, strategic choice, by geographical location, conducting R & D, technology cooperation agreements and the type of strategies growth to be developed in the future.

Table 3

Creativity and innovation characteristics of business women

Groups formed	Global sample: Values	Group 1	Group 2	Group 3	Group 4	Group 5	Significance
Variables		Family	Creative	Employed	Adaptive	Status Quo	
Number of individuals	237	45	49	43	49	51	
Type of product in the line up							
New in the international market	4.64%	-	+	=	+*	-*	0.427
New in the national market	9.70%	+	-	+	-	+*	
Known in the national market	8.86%	=	-	-	+	+*	
Standard or already know in the market	76.79%	=	-*	=	-	-*	



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Groups formed	Global sample: Values	Group 1	Group 2	Group 3	Group 4	Group 5	Significance
Variables		Family	Creative	Employed	Adaptive	Status Quo	
Business picked for strategic reasons							
Strategic location opportunity	50.21%	+	+	-*	+*	-	0.276
Strategic time opportunity	64.40%	-	-	+*	-*	+	0.008
Strategic sector opportunity	48.80%	-	-*	+*	-	-	0.011
Companies with cooperation agreements of R+D+I developments and innovation with other institutions							
Agreements	8.86%	=	-	+	+*	-*	0.862
Companies that perform activities specific to R+D+I (internally through external contract or both)							
R+D+I	17.29%	-	-	+*	-*	+	0.135
Growth Strategies in the future (of the companies that perform these activities)							
Internal growth	59.25%	+	+	+*	-	-*	0.367
Acquisition/ merger of other companies	7.40%	-	-*	-	+*	=	0.592
Establish cooperative alliances	24.69%	+*	-	+	-*	+*	0.453
Subcontracting of activities	23.45%	+	-*	-	-*	+*	0.633
Strategies with clients/provides	40.74%	+	-		-		0.131
Number of degree graduates							
Less than 5	96.62%	-	+	-			0.04
Greater than 5	3.38%	+	-	+	-*	+*	

Therefore, the analysis shows that group II, (forty-nine (49) business women, is fundamentally explained by the factor, market sector and amplitude (concentration of sales and business sector) is the one showing the highest concentration of values of the indicators associated with innovative and creative activity. This group of business women stands out significantly for being the ones to a large extent that have formed their company for having found strategic opportunity at the time and in a given industry, as well as for being a group of business women more committed to the development of R & D + I either internally or subcontracted to other companies or institutions.

Conclusions

The research, compared to other business types, presents the entrepreneurial women as being more dynamic and creative characterized by the valuation of policies to create companies, obtaining income based on effort and the consideration of survival factors. Professional experience and little emphasis on the ability to reconcile family life and work describe a typology of business women committed to their business. Furthermore, the current economic crisis has exercised its influence in determining the factors argued by business women. Moreover, the comparison of the factors obtained from the overall general sample of entrepreneurs regarding the sample of women just shows differences, except for a change in the



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ordering of the factors and the minor importance that the group of business women concede to the technological factor.

Thus, according to the gender of the business owner it can be said that women are less dynamic in the creation of companies even though those who repeat as business owners have opened on average two companies, similar to the overall sample. Gender differences are significant when considering the commitment of business owners to the development of investment in R + D + I. Only two out of ten women have developed these activities in their company compared to thirty-eight (38) percent of business owners in the representative sample of the Spanish business network. This trend is reproduced if one considers the number of degree graduates and engineers in the company, especially in the case of those not having any degree graduates (sixty-two, 62%, of women).

With respect to the clusters formed the results are significant. Depending on the determinant factors of entrepreneurial activity the following five groups are deduced: family business owner, managers, industrialists, adaptors and status quo. Of these, the industrial business owners and the adaptors are those that show a greater commitment to the development of policies and agreements of cooperation in R & D, as well as in the training of qualified personnel, as the best way to ensure the survival of the company in time of current economic recession, like the present. Regionally, there is needed improvement in business women policies to promote entrepreneurship and stimulus to R & D in Central and South NUT, with the purpose that business women in these regions are brought up to the same levels as other regions in the use of strategic opportunities in location, timing or sector.

Therefore, the characteristics of women entrepreneurs described need a major effort and balanced action on the part of public institutions to involve business women in innovative activities that strengthen the overall global competitive environment (stimulus policies R + D + I, technological cooperation, product design, better human capital in the university or non-university function, reinforcement of sectorial, territorial and regional clusters, among others) and support the birth and development of Schumpeterian creative women entrepreneurs, essential for progress and innovation in the business network and the national and regional economy.

Nevertheless, support programs must be highly tuned to not only serve to highlight the importance of the phenomenon of women in entrepreneurial activity but to really see new business initiatives emerge, has unfortunately happened in the United Kingdom (Carter and Shaw, 2006) and other advanced countries.

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