
Institutions and support programmes for entrepreneurship: A two countries comparison

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1 Problem statement and research objectives

1.1 Problem Statement

Since the research by Birch (1979) that brought to light the importance of new firms and SMEs in job creation during the period 1969–1976¹, public administrations of all political ideologies and levels began to establish assistance measures for the creation of new enterprises.

The subject of assistance to business start-ups has also attracted the interest of researchers (Cooper 1982, Vesper 1982, Birley 1986, Westhead 1990, Cromie 1991, Hawkins 1993, White, Reynolds 1996) who have assumed that the use of support mechanisms can have positive effects both on the number of firms created and on the improved survival rate of these firms. It must nevertheless be mentioned that this area of study still remains underdeveloped.

Therefore this study also assumes that assistance policy to business creation has a positive impact on employment generation (Storey 1982, 1988, 1994, Birley 1987, Kirchoff, Phillips 1988, 1992, White, Reynolds 1996), on economic growth (Kent 1982, Sexton 1986, Dubini 1989, Storey 1994, Wennekers, Thurik 1999), and on innovation (Drucker 1984, 1985, Pavitt, Robson, Townsend 1987, Acs, Audretsch 1988) (figure 1).

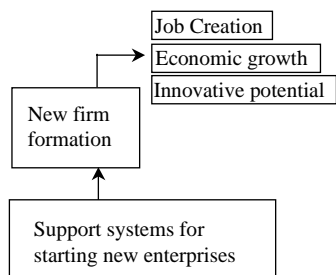


Figure 1: Support systems for starting new firms and its positive repercussion on job creation, economic growth, and innovation

Many authors (Hagen 1968, Wilken 1979, Bruno, Tyebjee 1982, Shapero, Sokol 1982, Gnyawali, Fogel 1994) have proposed that economic development, and therefore creation of new enterprises depends not only on tangible factors (economic) as infrastructure and investment, but also on intangible (socio-cultural) ones. Examples of these intangible factors can be found in the underlying institutional infrastructure, such as

¹ Within this research which was carried-out in the United States, Birch demonstrated that between 1969 and 1976 two thirds of new jobs were created by firms of less than 20 employees.

the prevailing values, social capital, systems of incentives, and the efficiency and effectiveness of public administrations.

Institutional theory seems to have drawn the attention to the institutional or contextual – cultural, social, political and economic – factors as determinants of entrepreneurship. In this sense, institutional theory will be used as theoretical framework of this research due to its adequacy in the study of the formal institutional factors that affect new firm creation in both countries, Catalonia and Puerto Rico.

1.2 Research objectives

The main purpose of this study is to compare the formal institutional context affecting entrepreneurship in two countries Catalonia and Puerto Rico. This research focuses both on the supply side (institutions and support programmes) and on the demand side (entrepreneurs).

The specific objectives are the following:

1. To identify and describe the most relevant institutions and support programmes available to new firms in two countries.
2. To compare the levels of awareness and utilisation of the programmes by Catalan and Puertorican entrepreneurs and their evaluation of these programmes.
3. To analyse the possible gap between the supply and demand of support in order to determine how support for new firms can, and should, be improved in Catalonia and in Puerto Rico.

2 Theoretical framework: The institutional theory

Institutional theory has been the theoretical framework adopted for this research, and more concretely the work entitled “Institutions, Institutional Change and Economic Performance” by Douglass North (1990).

Institutional theory develops a very wide concept of ‘institution’. North (1990, p.3) proposes that “institutions are the rules of the game in a society, or more formally, institutions are the constraints that shape human interaction”. Institutions include any form of constraint that human beings devise to shape human interaction. Institutions can be either formal – such as political rules, economic rules and contracts – or informal – such as codes of conduct, attitudes, values, norms of behaviour, and conventions, or rather the culture of a determined society. North attempts to explain how institutions and institutional context affect economic and social development. The main function of institutions in a society is to reduce uncertainty by establishing a stable structure to human interaction.

Institutional theory has been selected as theoretical framework for this research mainly due to the adequacy of North’s propositions concerning formal institutions to the analysis of the formal institutional context to entrepreneurship in both countries Catalonia and Puerto Rico. According to Veciana institutional theory “currently supplies the most consistent and appropriate conceptual framework to probe the influence of the environmental factors on entrepreneurship” (Veciana 1999, p.25). A good example of this is given in the Sixth Report of the *European Observatory for SMEs* (2000),

that include a section where North's formal and informal institutions were presented as factors conditioning growth and economic development in the distinct European Regions and Countries².

In this research we refer to formal institutions as public policies, institutions offering assistance and available support measures to new enterprise creation in Catalonia.

On the other hand, Veciana (1999, p.26) pointed out that "there are few empirical studies that have used the framework of institutional theory, and only isolated factors have been studied". Anyhow, it should be mentioned that there are presently several doctoral theses being carried out as part of the "European Doctoral Programme in Entrepreneurship and Small Business Management"³ using the institutional theory as theoretical framework.

3 Literature review: Formal institutional factors that affect entrepreneurship

In this literature review the most relevant studies, which describe and analyse the formal institutional context of support measures towards business creation were selected. The selection was limited to those studies that considered the following formal institutional factors:

- a) Governmental measures, both in the generalised field of norms and legislation that regulate the business creation environment, and the more specific field of fiscal incentives and administrative formalities in the creation of a new firm
- b) Non-economic services and assistance programmes for new entrepreneurs in the process of creating a business (information, counselling, training, etc.)
- c) Economic aids and support programmes in the start-up of a new enterprise (loans, subsidies, finance, guarantees, etc.).

Greater attention will be given to the literature treating the support measures (economic and non-economic) and less to aspects related to the legal framework, point (a), affecting new enterprise creation.

Table 1 summarizes the main theoretical studies. The main objectives of these studies and the distinct formal institutional factors analysed are also indicated in this table.

2 It is worth mentioning that many studies are being carried-out in the context of the institutional theory framework, of which the following stand-out: "Attitudes towards entrepreneurship: a two countries comparison" (Veciana, Aponte, Urbano) and "University student's attitudes towards entrepreneurship: a two countries comparison" (Veciana, Aponte, Urbano), papers presented in the RENT XIII (London, November 1999) and in the Entrepreneurship Summit 2000: At the Caribbean (Puerto Rico, January 2000), respectively.

3 The "European Doctoral Programme in Entrepreneurship and Small Business Management" (EDP) is an international doctoral programme specialised in Entrepreneurship and organised by the Universitat Autònoma de Barcelona (Spain) and by Växjö University (Sweden) (<http://selene.uab.es/edp>).

<i>Author / Year</i>	<i>Research objectives</i>	<i>Formal Institutional Factors</i>
Bruno, A. V., Tyebjee, T. T. 1982	Environmental factors that affect business creation	Global support measures
Cooper, C. C., Gimeno, F. J. 1992	General factors that affect business creation	Global support measures
Gartner, W. B. 1985	Environmental factors that affect business creation	Global support measures
Gibb, A., Manu, G. 1990	SMEs support services in third world countries	Design of SMEs support services
Gibb, A. A. 1993	Design of policies and support measures for business creation	Design of business creation support services
Gnyawali, D. R., Fogel, D. S. 1994	Environmental factors that condition business creation	Global support measures
Malecki, E. J. 1997	Environmental factors that affect business creation	Global support measures
Monsted, M. 1993	Business creation support networks	Business creation support network
Salas, V. 1990	Financial instruments of new enterprises	Start-up finance
Shapero, A., Sokol, L. 1982	Socio-economic factors that affect business creation	Global support measures
Smith, F. W. 1994	Venture capital	Venture Capital
Storey, D. 1994	SMEs policies and support mechanisms	Governmental policy management and SMEs support mechanisms
Van de Ven, A. H. 1993	Support infrastructure for technological business creation	Infrastructural design of support for technological business creation
Veciana, J. M. 1988	General factors that affect business creation	Global support measures

Table 1: Selected theoretical studies treating formal institutional factors

As shown in Table 1 most of the selected studies present a revision of the formal factors that influence business creation. The works by Veciana (1988) and by Cooper and Gimeno (1992) present the general factors that can affect the creation of an enterprise. Authors such as Gartner (1985) and Gnyawali & Fogel (1994) make a more in-depth study of environmental factors conditioning start-ups, and come to recommend possible lines of action for governmental policy towards business creation. Other studies have centred on the analysis of the improved administration of institutions supporting new enterprises (Gibb 1993). There are also works that develop specific support measures: business creation support networks (Monsted 1993), financial instrument for new businesses (Salas 1990), venture capital (Smith 1994), and entrepreneurial training (Vesper 1982).

Table 2 summarizes the most relevant empirical research on support measure for business creation. This table includes the objectives of each study, its units of analysis, and the methodology used.

<i>Author / year</i>	<i>Research objectives</i>	<i>Unit of analysis</i>	<i>Methodology used (number of surveys sent / received)</i>	<i>Formal institutional factors analysed</i>	<i>Region, country (collective)</i>
Anna, A. L., Chandler, G. N., Jansen, E., Mero, N. P. 1999	Factors that condition business creation for women entrepreneurs	Women entrepreneurs	Postal surveys (609 / 143)	Global support measure for business creation	Illinois / Utah, USA
Birley, S. 1985	Formal / informal business creation networks	Entrepreneurs	Surveys (703 / 160)	Formal networks	St. Joseph County, Indiana
Birley, S., Cromie, S., Westhead, P. 1994	Factors that condition business creation	Business owners	Surveys (250 / 62)	Governmental policies and global support measures	UK and Northern Ireland
Chrisman, J. J., Hoy, F., Robinson, R. B. 1987	Impact of the SBDC (Small Business Develop- ment Centre) upon business creation	Enterprises that have contacted support institutions	Postal surveys (474 / 55; 557 / 80)	Business creation support by SBDC	Georgia and South Carolina
Cooper, A. C. 1985	Role of business incubator in business creation	Business incubators	Secondary sources	Business incubators	USA
Cromie, S., Birley, S. 1994	Efficiency of business creation support institutions	Representatives of institutions	Interviews (64)	Business creation support institutions	Northern Ireland
Good, W. 1996	Business creation support programmes	Enterprises formed within the last 5 years	Postal surveys (4000 / 1130)	Global support measures for business creation	Manitoba, Western Canada
Haskins, G., Gibb, A. 1987	European institutional framework of entre- preneurship	Types of business creation support	Secondary sources	Supply of business creation support measures	Europe
Hawkins, D. I. 1993	Business creation programmes and institutions	Business creation programmes	Secondary sources	Global support measures for business creation	Japan
Johannisson, B. 1988	Business creation support institutions	Business creation support institutions	Secondary sources	Business creation support institutions	Sweden
Klofsten, M., Mikaelson, A. 1996	Level of use of business creation assistance	Entrepreneurs	Postal surveys (99 / 62)	Global support measures for business creation	Linköping, Sweden
Klofsten, M., Schärberg, C. 1998	Supply / demand for SME assistance	SME support institu- tions	Postal surveys (30 / 20)	SME support institutions	Ostergötland, Sweden
Knight, R.M. 1996	Business creation support programmes	Entrepreneurs	Surveys (1379)	Global support measures for business creation	Ontario, Canada
Kourilsky, M. L., Walstad, W. B. 1998	Importance of schooling in business creation	Entrepreneurs with secondary education	Surveys (1000)	Entrepreneurial training	USA
Lerner, M., Haber, S. 2000	Factors conditioning business creation in the tourism industry	Firms from the tourism industry	In-depth interviews (53)	Global support measures for business creation	Israel
Martinez, A., Urbina, O. 1998	Entrepreneurial characteristics, business creation process, and support measures	High technology firms	Surveys (50)	Global support measures for business creation	Aragon, Spain
McMullan, W. E., Gillin, L. M. 1998	Training programmes for business creation	Future entrepreneurs in high-tech firms	Case studies	Entrepreneurial training	Swinburne, Australia
Monroe, S. R., Allen, K. R., Price, C. 1995	Training programmes for business creation	Students of training programmes	Surveys (telephone- postal) (126)	Entrepreneurial training	USA
Sarder, J. H., Ghosh, D., Rosa, P. 1997	Influence of assistance upon business results	Entrepreneurs	Semi-structured interviews (161)	SME support measures	Bangladesh
Vesper 1982	Types of training for business creation	Student of training programmes	Secondary sources / Surveys (66)	Entrepreneurial training	USA
Vesper, K. H., Gartner, W. B. 1997	Characteristic of business creation programmes	Business school directors	Surveys (311)	Entrepreneurial training	USA / Canada
Young, M., Wyman, S. Brenner 1999	Supply / demand ade- quacy of business cre- ation support measures	Entrepreneurs	Postal survey (1000 / 570)	Global support measures for business creation	Texas, USA

Table 2: Selected empirical studies on the formal institutional factors

It can be observed in table 2 that an important part of the selected empirical studies make a general description of the formal institutional factors, analysing the economic as well as the non-economic support measures. There is also vast representativeness, both as regards the geographical distribution and the groups of entrepreneurs that were the object of study. Most of the empirical studies have utilised surveys as data collection tools.

4 Research Methodology

The combination of methodologies called triangulation is used in this study. We combine both quantitative and qualitative methods, as well as primary and secondary data.

For the study of the supply of support programmes, different sources of secondary data were used, such as information pamphlets, institutions' internal statistics and documents, web-sites, press releases as well as specialised journal articles. Also, in the case of Catalonia personal interviews were carried out with responsible agents of the business creation department in the most important institutions.⁴

As for the analysis of the demand for assistance, 60 and 50 structured personal interviews were carried out with current entrepreneurs⁵ from Catalonia and Puerto Rico, respectively. Also, 307 structured telephonic surveys were carried out with nascent entrepreneurs who contacted CIDEM (Centro de Innovación y Desarrollo Empresarial – Centre for Innovation and Business Development) between the years 1997 and 1999, in search of information regarding enterprise creation (see table 3).

The information obtained was analysed using the statistical software package SPSS version 9.0. Univariable analyses (frequencies and percentages) were used as statistical techniques.⁶ As for the opened questions, the information was transcribed to a text file from the word-processing software Word Office-Version 2000, and then grouped by information categories.

4 We are grateful for the collaboration of all the institutions that participated in this study. Specially for the part of research in Catalonia we thank the following individuals: Lluís Rodríguez (Diputación de Barcelona), Joan Martí (CIDEM), Xavier Agulló (Servei Autoempresa), Pep Marquès (Barcelona Activa), Montserrat Borràs (Ayuntamiento de Terrassa), Ricard García (Ayuntamiento de Castellar del Vallès) and Jaume Amill (Aleph). Related to the institutions in Puerto Rico we thank the collaboration of Eduardo Ramos (Small Business Administration).

5 In this research current entrepreneurs are individuals that created their enterprise in the last five years (1994–1998) and nascent entrepreneurs are defined as individuals that are in the process of creating a new firm.

6 We thank the collaboration of our colleagues Prof. Eduardo Jiménez, Prof. Teresa Obis, Prof. Àlex Rialp and Prof. Josep Rialp from the Department of Business Economics of the Universidad Autònoma de Barcelona and Prof. Wilfredo Camacho from University of Puerto Rico, who assisted in the design and statistical analysis of the empirical research. We also thank Begoña Berenguer and Josep Maria Coll for the assistance in the field work in Catalonia and Hilda Nango in Puerto Rico.

	Telephonic survey to Catalan nascent entrepreneurs	Personal interview to Catalan current entrepreneurs	Personal interview to puer-torican current entrepreneurs
Population	Nascent entrepreneurs who contacted CIDEM between the 1997 and 1999 to ask for information regarding business creation.	Firms from the directory "Catalunya 20 000. Principals Empreses Catalanes" (1999 edition, Duns & Bradstreet in collaboration with CIDEM, 20 000 firms) formed between 1994-1998.	Firms from the directory "Business Register-Puerto Rico" (1999 edition, 8 000 firms) between 1994-1998.
Sample unit	Nascent entrepreneurs	Current entrepreneurs	Current entrepreneurs
Geographical setting	Catalonia	Catalonia	Puerto Rico
Census of population	2 452 nascent entrepreneurs	1 352 current entrepreneurs	762 current entrepreneurs
Design of sample	Proportionally stratified random sample. The stratification variable is the number of contacts with the CIDEM per annum.	Proportionally stratified random sample. The stratification variable is the geographic location of the firm (by Catalan county)	Proportionally stratified random sample. The stratification variable is the geographic location of the firm (by Puertorican county)
Sample size	346 nascent entrepreneurs	60 current entrepreneurs	50 current entrepreneurs
Confidence level	Z=95 %, K=1.96, p=q=50 %	Z=95 %, K=1.96, p=q=50 %	Z=95 %, K=1.96, p=q=50 %
Sample error	+/-5.22 %	+/-12.36 %	+/-13.8 %
Date of field work	June to November, 2000	June to November, 2000	June to September, 2000
Information gathering method	Telephonic surveys using a structured questionnaire	Personal interviews using a structured questionnaire	Personal interviews using a structured questionnaire

Table 3: Technical details about the empirical research

5 Results and discussion

5.1 Supply side of support services: The formal institutional context for entrepreneurship in Catalonia and Puerto Rico

The formal institutional context for business creation in both countries Catalonia and Puerto Rico is characterised by its scope. This scope refers both to the high number of institutions involved in start-up assistance and the variety of services and support programmes offered by these institutions. Figures 2 and 3 present the distinctive levels of the institutions offering assistance for business creation in the two countries.

According to the figure 2, the European Union acts as an umbrella that distributes public funds to the Spanish Central Administration and to the Regional and Local Administrations of Catalonia. Funds from European Union also reach several other non-administrative institutions. Finally, nascent entrepreneurs receive start-up assistance, which in the majority of cases comes from the Regional and Local Administrations of Catalonia.

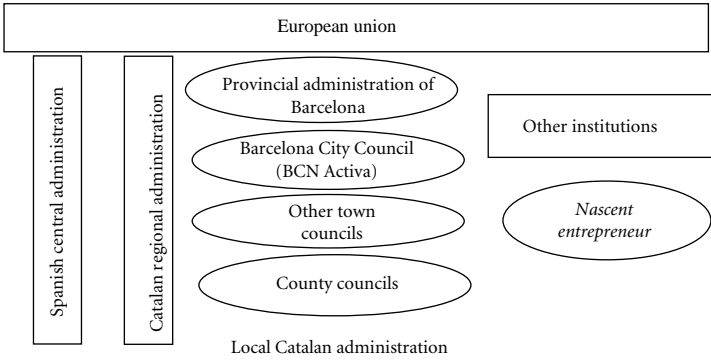


Figure 2: Global institutional context to entrepreneurship in Catalonia

On the other hand, the public support institutions operating in Puerto Rico are classified as Federal⁷, State, and Municipal (see figure 3). The Federal and State institutions have regional offices that assure the availability of the support services for the nascent entrepreneurs of the different municipalities. All three levels of institutions sometimes work together as part of collaboration agreements that in some cases also include private entities.

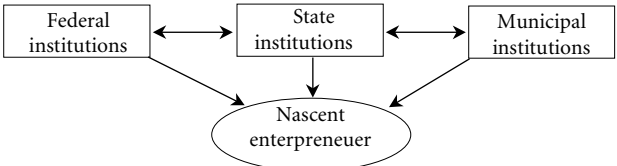


Figure 3: Global institutional context for business creation in Puerto Rico

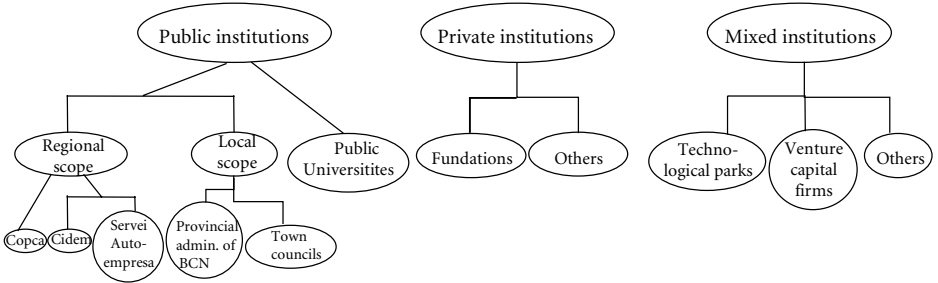
5.1.1 Types of institutions offering support to business start-ups

In this research the institutions that promote and finance assistance measures for new enterprises will be distinguished from those institutions that administrate and offer these services.

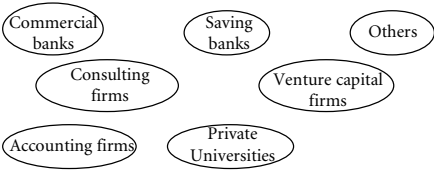
While the formal institutional context in Catalonia is divided into three segments, the Puertorican context is only divided into two. This results from the integration of private institutions with the group of other socio-economic agents also offering business creation assistance (see figures 4 and 5).

⁷ Federal refers to the U.S. Agencies offering services in Puerto Rico.

(a) Institutions offering services that are totally or partially promoted and financed by public administrations



(b) Private institutions that offer services which are not financed by public administration

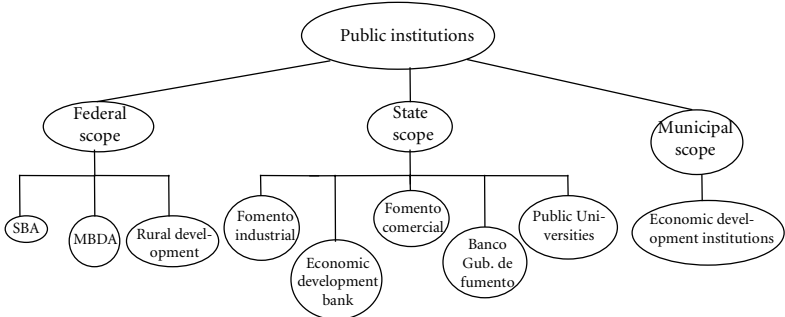


(c) Other socio-economic agents that offer services that are partially financed by public administrations



Figure 4: Formal institutional context to entrepreneurship in Catalonia

(a) Institutions offering services that are totally or partially promoted and financed by public administrations



(b) Private institutions offering services which are not financed by public administrations

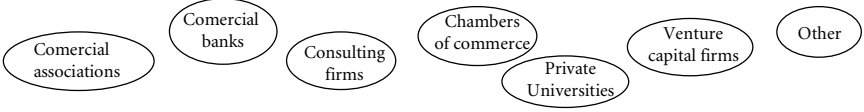


Figure 5: Formal institutional context for business creation in Puerto Rico

5.1.2 Types of support measures to business creation

Regarding the specific support measures offered by the above mentioned institutions, two types of programmes will be considered: economic programmes – “hard measures” (financial loans, subsidies and venture capital) and non-economic programmes – “soft measures” (information-orientation, consulting-counselling, training and incubators’ support) (see figure 6).

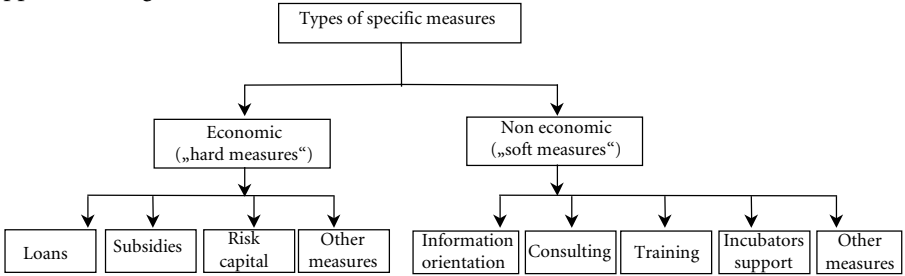


Figure 6: Types of specific support measures to business creation

Although they will not be treated explicitly in this paper, it is worth indicating the existence of general support measures to business creation. These refer basically to governmental norms and regulations that affect business creation that aim at the improving the environment for new firms.

5.2 Demand side of support services

Hereunder the main results of the comparison regarding to the levels of awareness, utilisation and evaluation for support programmes of the Catalan and Puertorican samples of entrepreneurs are presented.

Figure 7 reflects the percentage of entrepreneurs from the samples who are aware of some support programmes for business creation, as well as the percentage of entrepreneurs who have used a programme.

It can be observed that the percentage of Puertorican current entrepreneurs who are aware of at least one assistance programme (90%) is much higher than the one of the samples of Catalan entrepreneurs (60.7% for current entrepreneurs and 74.3% for nascent ones). Nevertheless, the percentage of Catalan nascent entrepreneurs who have made use of the programmes (59.6%) surpasses both the percentage of Catalan and Puertorican current entrepreneurs (20% and 32% respectively).

These results contrast with those of the ENSR survey carried out for the Sixth Report of the *European Observatory for SMEs* (1999) on the knowledge and use made of the support programmes by new entrepreneurs. According to this report only 20% of the entrepreneurs from European Union countries knew of the existence of at least one support programme. Even fewer of these entrepreneurs had actually made use of this assistance (10%).

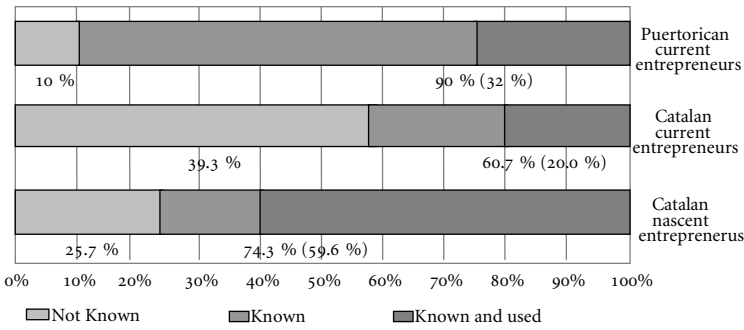


Figure 7: Comparison of the awareness and utilisation of support programmes by the samples of Catalan and Puertorican entrepreneurs

Figures 8 and 9 show the evaluation and importance attributed to business creation assistance by both samples of entrepreneurs. In these graphs the support programmes were divided into economic and non-economic ones.

According to figure 8 more than 50% of the samples of both countries evaluate the non-economic programmes positively. However the Puertorican entrepreneurs show a greater level of dissatisfaction with these type of programmes (42.6% as compared with 26.3% and 24% for the Catalan samples).

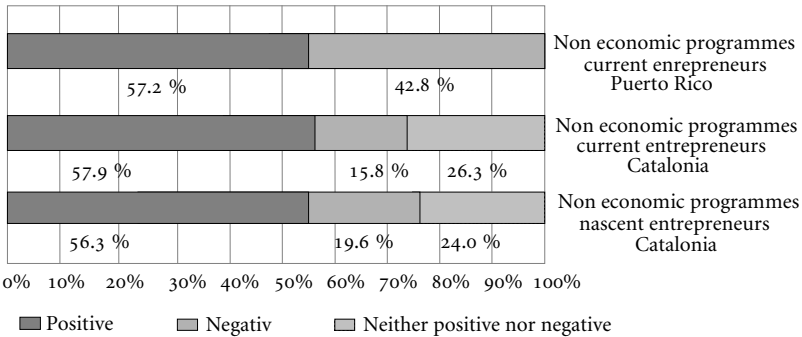


Figure 8: Comparison of the evaluation of the non-economic used programmes, according to the samples of Puertorican and Catalan entrepreneurs

Figure 9 reflects full satisfaction of the Puertorican entrepreneurs with the economic support programmes used. On the other hand, the evaluation for these programmes by the Catalan entrepreneurs is much lower (50% for current entrepreneurs and 20.6% for nascent ones).

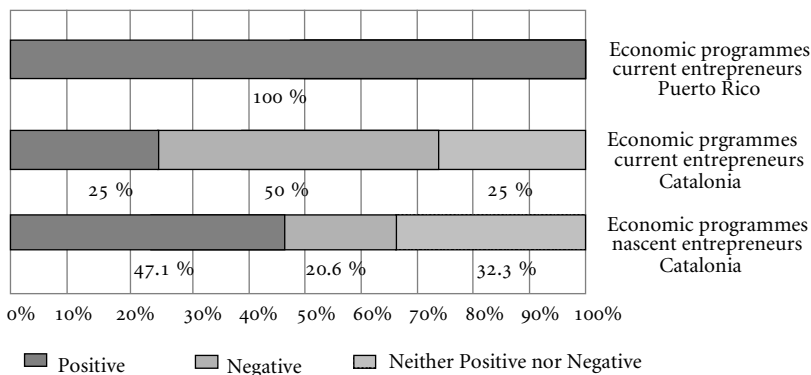


Figure 9: Comparison of the evaluation of the economic used programmes, according to the samples of Puertorican and Catalan entrepreneurs

The above graphs also show that while the Catalan entrepreneurs tend to value more the non-economic measures, the sample of Puertorican entrepreneurs attach far greater value to the economic programmes.

With regard to the overall opinion of the existing support measures, figure 10 reflects that Catalan samples of entrepreneurs share a negative appraisal (58.4% of the current entrepreneurs and 49.3% of the nascent ones feel this way) while the opinions of the Puertorican entrepreneurs are much more positive (81.2%).

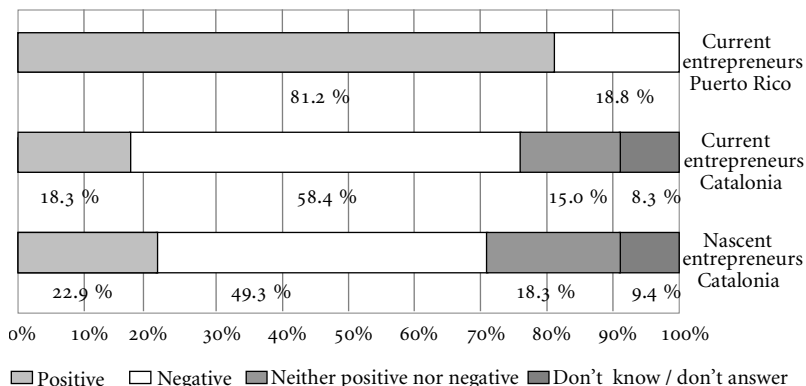


Figure 10: Comparison of the overall opinion of the existing support measures according to the samples of Puertorican and Catalan entrepreneurs

The entrepreneurs from the Catalan samples justify their overall negative evaluation of the existing support programmes by highlighting the insufficiencies and the lack of knowledge of these programmes. The entrepreneurs from the Puertorican sample that have negatively rated the existing support measures (18.8%) refer to their lack of knowledge about the existing measures. Also, they blame the ineffective promotion of the measure that consequently lead to their low levels of utilisation.

6 Conclusions

The main conclusions of the research are as follows:

1. There is an over-diversification of institutions as well as services and programmes offering support to business creation in both Catalonia and Puerto Rico. This diversification and the lack of co-ordination between them leads to the duplication and overlap of the supply of business creation support programmes.
2. The sample of current entrepreneurs from Puerto Rico have the best knowledge of the support programmes offered (90%). On the other hand, the sample of nascent Catalan entrepreneurs made greatest use of these measures (59.6%).
3. According to both Catalan samples of entrepreneurs, non-economic support programmes are more valued than economic ones, but the Puertorican sample values higher the economic assistance programmes.
4. While the Puertorican sample of entrepreneurs holds a globally positive opinion of the existing support measures, a high proportion of the entrepreneurs from the Catalan samples have an opposite view. Catalan entrepreneurs feel that the existing measures do not satisfy well their needs and that these measures are insufficiently known.
5. Consequently, it can be deduced that the services supplied by institutions do not fit the demand for assistance on the part of new entrepreneurs. The public institutions offering support measures in Catalonia are too dependent upon the political cycle, leading to policies, programmes and services that place more emphasis on political interests rather than efficiency and effectiveness.
6. As for the Puertorican case, the institutions are slowed down by the heavy bureaucratic structure involved. Another observed problem stems from the attitude of the staff of many support institutions; their attitude and behaviour often restrain this process creating a demotivation, instead of being a stimulus and motivation factor for the new entrepreneurs.

References

The bibliography of this paper can be found on the Internet:

http://www.igw.unisg.ch/rencontres/veciana_references_2002.html