

Towards an empirical methodology for the measurement of the quality entrepreneur: the case of Sevillian entrepreneurs

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Abstract

Since the process of globalization increased its importance during the nineties, the entrepreneur's role in regional economic development is considered essential. These economic agents, besides their financial and entrepreneurial functions, carry out a 'booster' function that is manifested in the adoption of a series of strategic decisions (new investment projects, innovation in new products and processes, technological and marketing cooperation ...). The quality in the performance of these booster tasks, which depends basically on the psychological and sociological characteristics of entrepreneurs, is essential to increase the competitiveness of the regional economy and, through it, the employment and well-being levels.

Local development policies have been implementing since the early eighties a wide variety of measures to promote entrepreneurship, without sufficiently favourable results. Those measures have tended to address the entrepreneur's financial and managerial functions, and not the booster one, which is where the entrepreneurial spirit lies. In this sense, decision-makers –if they are to improve that entrepreneurial spirit with measures that raise the quality of the booster function- should previously have an appropriate diagnosis on the qualities of entrepreneurs in the area.

The main objective of this paper is to elaborate an empirical methodology that allows measuring the quality of the entrepreneur's booster function. That is to say, it tries to establish the stages and instruments that are critical to globally value the qualities of entrepreneurs in a given region. Among the instruments, it is essential the elaboration of an index of entrepreneurial quality starting from partial indicators of several qualities. And among the stages, it is highlighted the possibility to establish an entrepreneurial typology with respect to quality levels, and a profile of each type of entrepreneur. As an example, this methodology is applied to determine the quality level of Sevillian (southern Spain) entrepreneurs, thus showing its validity.

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1. Introduction: the entrepreneur in economic development

One of the questions raising greater interest among economists, at least since the beginning of the de-colonization process after Second World War, is the debate about the factors determining income differences among countries, and also among regions within a country. In this sense, answers have usually been looked for on the basis of so-called top-down models, for which the key for economic development is greatest factor mobility, basically capital and labour. According to these models, backward regions would solve their economic problems, on the one hand by receiving capital surpluses from more advanced regions, and on the other hand by facilitating the transfer of their manpower surplus towards those more developed regions, where they may be needed.

Nevertheless, practice has demonstrated that income differences among regions within a country and among countries themselves have not varied significantly. An obvious example is the Spanish case. In spite of a better present situation in the most backward regions (Communities) -as Andalusia or Extremadura-, these have not changed appreciably their relative position with respect to the most developed Communities. Although the policy of transfers to families and to productive sectors has prevented a greater backwardness of the poorer regions within an ever increasing competitive context, their results have been insufficient.

In this sense, within regional development economics, alternative models to explain economic disparities began to be elaborated from the eighties. These are the so-called endogenous development models. According to these, the basic problems of lagged economies reside in the under-utilisation of their endogenous resources, among which dynamic entrepreneurs represent an outstanding role. For this reason, among economic policy measures, the promotion of productive activities through the support to local entrepreneurs is much recommended, with the basic objective of promoting an entrepreneurial culture (Cappellin, 1991).

Based on this importance that has just been attributed to the entrepreneur in economic development, researchers try to explain the behaviours of entrepreneurs and whether they are effectively promoting economic development in their regions. It is precisely within this line of research where the present paper is inserted, having the following objectives:

- Firstly, to elaborate an explanatory model of the factors which define the quality of entrepreneurs in a certain region, understanding as entrepreneurial quality not management quality, but that of the behaviours that entrepreneurs show when trying to energize their enterprises.
- Secondly, to elaborate -based on that theoretical model- an empirical methodology for the measurement of entrepreneurial quality, establishing a series of basic stages among which the elaboration of an index of entrepreneurial quality is highlighted.
- And thirdly, to apply this methodology to measure the quality of entrepreneurs in the province of Seville (Spain), as an example.

2. An explanatory model for the quality entrepreneur

Although the entrepreneur's role in economic development is not given enough importance until the endogenous development approach began to be considered, some outstanding contributions already existed before regarding their functions, as Schumpeter's (1944) or Knight's (1948). But it has probably been other social sciences which has studied the entrepreneur's role more deeply before endogenous development models arose. In this sense, Weber's (1969) sociological contribution, Sombart's (1993) historical one, or McClelland's (1961) psychological one, may be highlighted.

All these theories, though highly valuable, have been developed without considering each other. Therefore, a wide variety of notions coexists about the functions the entrepreneur carries out to promote entrepreneurial success and, through it, economic development (Hebert and Link, 1989). In this sense, several efforts have been carried out recently to reach a synthesis. Thus, Guzmán (1994) summarizes the different entrepreneurial functions pointed out by economists and other social scientists in three

different ones: capitalist or financial function, carried out by the entrepreneur when supplying capital to the enterprise; the managerial function, consisting on direction, organization, negotiation, or controlling the operations of the venture; and the booster function, which implies the adoption of a series of essential initiatives not only to initiate the enterprise, but also to help it survive to market forces and achieve expansion.

Contrary to the managerial and financial functions, the booster one has a markedly dynamic character and it is very difficult to formalize. This way, its result does not depend on the application of certain technical knowledge about management, however complex they may be (this corresponds to the managerial function), but on the qualities -both psychological and sociological- of the entrepreneur. who should decide the basic initiatives to assume in the business as, for example: to undertake a new innovative project; to look for new profit opportunities in the market; or to stay alert about possible demand changes. It is necessary, nevertheless, to distinguish among the two great sub-functions that, in our opinion, the booster function presents:

- The “promoter sub-function” materializes when the entrepreneur creates a new enterprise. Nevertheless, it also has a clear projection on those “potential entrepreneurs” that have not still created a venture but present a high propensity to do it.
- The “energizer sub-function” materializes along the life or existence of the enterprise, promoting their development or, at least, keeping it alive. This sub-function is, then, projected directly on the work of “active entrepreneurs”.

Both sides of the booster function configure what has been called “entrepreneurial culture” of a society, that is, the set of values, beliefs and attitudes towards the entrepreneurial activity of the population (Gibb, 1993), which may directly influence the push towards economic development of any region. In this sense, the new regional development policy based on endogenous development models, addresses some instruments to improve the entrepreneurial culture, facilitating the work of local entrepreneurs (Vázquez Barquero, 1993).

On the other hand, with respect to the energizer sub-function, that entrepreneurial culture would show through the existence of entrepreneurs with certain

qualities, both psychological and sociological, i.e., through a certain “entrepreneurial quality”. This quality should not be confused in any case with management quality (which refers to activities of the managerial function), but rather it refers to the initiatives and behaviours of entrepreneurs to energize their business. Therefore, to be able to define more precisely what is meant by “quality entrepreneur”, a model is required to explain which are the essential features determining their behaviour, and which are the factors that influence them. We would, then, have a theoretical reference framework to allow qualitative analysis of the entrepreneurs in any region.

In this sense, based on the literature about the entrepreneurial function, a model has been elaborated to gather the characteristics that would define a quality entrepreneur or “good entrepreneur”, and the environmental factors that influence these characteristics (Santos, 1998; Guzmán and Santos, 2001). Among those characteristics or qualities the following ones are underlined (Figure 1):

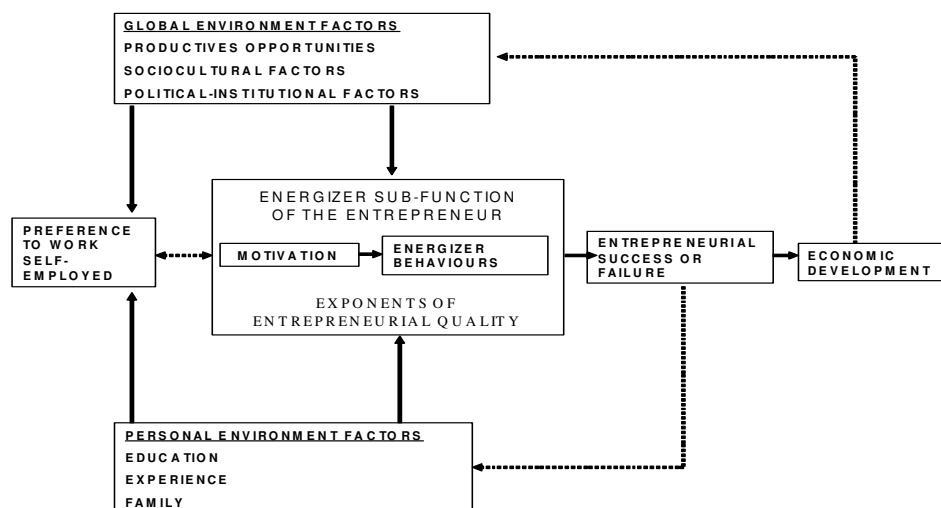
- Preference to work as self-employed, as an entrepreneur who prefers salaried work, all else being equal, cannot be considered of quality.
- Intrinsic entrepreneurial motivation, in which the activity is developed by the interest and pleasure of carrying it out, as for example inclination or need for personal development.
- Developing a series of energizer behaviours, basically derived from ambition, innovation, cooperation, or initiative -which includes planning capacity-.

These entrepreneurial qualities, in our model, will be influenced by environmental factors, which can be divided into, on the one hand, factors of the entrepreneur's personal environment (basically the family, education and professional experience) and, on the other hand, factors of the entrepreneur's global environment (among which would be productive availability, sociocultural and political-institutional factors). Thus, while personal environment factors provide abilities and attitudes, global environment factors provide opportunities and information.

Obviously, among the different elements of the model important interrelations exist (Figure 1), with the following ones standing out:

- Preference to work as self-employed is considered as a necessary condition, but not sufficient, to be a quality entrepreneur (Guzmán, 1995).
- Entrepreneurial motivation (the set of factors that surround or influence the emission of a given behaviour in a concrete situation, according to Vélaz-Rivas, 1996) exercises a direct influence on booster / energizer behaviours. An intrinsic motivation will contribute to a greater extent to adoption of appropriate energizer behaviours.
- The type of energizer behaviours will influence decisively on entrepreneurial success or failure and, in turn, this will determine a higher or lower level of economic development in the area where entrepreneurs operate.
- Environmental factors will affect -directly or indirectly- the necessary condition, the motivation and the energizer behaviours. In turn, feedback processes exist as, on one hand, the incidence of the development level on the factors of the entrepreneur's global environment and, on the other hand, the incidence of the level of entrepreneurial success on the factors of the personal environment.

Figure 1
Model of configuration of the Entrepreneurial Quality



Source: Santos, 1998.

3. Measurement of the entrepreneurial quality

Once the theoretical model of entrepreneurial quality has been outlined, the following objective is to develop an empirical methodology to identify the quality

entrepreneur. This is important because, so far, the qualitative analyses carried out about the entrepreneur, especially in Spain, are scarce and follow very different orientations. Some of them seem to be centred on the figure of the large entrepreneur (Veciana, 1989), some others on industrial entrepreneurs (Sanchis et al., 1989), others focus only on micro-entrepreneurs (Díez de Castro, 1995) and, still others confuse entrepreneur and manager (Genesca and Veciana, 1984). On the other hand, those studies are not homogeneous regarding the entrepreneurial behaviour variables analyzed either.

In this sense, we now propose a specific methodology centred on the measurement of the four types of energizer behaviours indicated, hoping that its discussion with other researchers in this field will allow reaching some agreement.

3.1.- Definition of entrepreneurial quality indicators.

A first stage in this empirical methodology is defining a series of indicators for the entrepreneur's different energizer behaviours. These behaviours are derived from the previously indicated qualities:

a) Ambition. The behaviours derived from this quality mainly pursue to increase the venture size. In fact, in the entrepreneurial environment, ambition is just the restlessness to reach higher levels of growth, not only of profits, but also, in many instances, in the complementary fields of market power, social status, etc. (Guzmán, 1995). In this sense, entrepreneurs possessing this quality show a non conformist behaviour, trying to avoid passivity that may cause environmental events to lead the enterprise towards crisis. We propose two different indicators to measure behaviours derived from ambition:

- The interest for self-financing the enterprise. It is basic to avoid decapitalization and to provide enough financial resources to afford likely future investments needed -either for growth or maintenance of the competitive position-. Self-financing may be measured through retained profits.
- Expansion of the enterprise productive capacity. This is what more clearly implies business growth. We may consider as expansion: investments in new facilities, acquisition of new machinery or the increase in the number of employees.

b) Innovation. The innovation capacity has reached even greater relevance in the last decades, mainly due to the enormous complexity of the economic environment in which enterprises act, and so the possibilities of any enterprise to grow or even subsist in the market are very directly related to the entrepreneur's innovation and creativity levels. Behaviours derived from innovation not only refer to technological innovations, but also to creation of new products or services -independently of their technological innovativeness-, and to the search for new supply sources and new markets (Schumpeter, 1944). In this sense, the following indicators are suggested:

- As for technological innovation, having developed in-house research and development (R+D) projects, or the acquisition of new technology for the enterprise.
- The creation of new products or services for customers.
- The geographical area where greatest share of production is sold (local, provincial, regional, national or international).
- The geographical area where greatest share of supplies are bought.

c) Collaboration. Behaviours derived from the spirit of collaboration have also acquired, in the current competitive and globalized environment, an exceptional importance for entrepreneurial success. In fact, there are some very dynamic areas, as the "Third Italy", where a dense contact network among small local enterprises developed spontaneously, giving the region great flexibility (Costa Campi, 1992). Collaboration is manifested by a favourable disposition to membership to certain entrepreneurial support institutions, to establish agreements with other entrepreneurs and to develop common projects. Among possible indicators we define the following ones:

- Membership to a Mutual Guarantee Scheme (MGS) whose main objective is offering guarantees to its member-entrepreneurs so that they can access bank financing without need to offer personal securities. Therefore, membership to these schemes implies a process of active collaboration, contrary to membership to Chambers of Commerce -normally compulsory-.
- Establishment of formal collaboration agreements with other entrepreneurs within the same or linked activity. Formal agreements imply a firm commitment to collaboration and, therefore, are not sporadic.

- Use of a personal contact network, or cooperation network, which is highly informal but provides information, technical advice, abilities, financial and physical resources (Sweeney, 1988). Networks lead to alliances that may be conscious, but in many cases take place as a consequence of the competitive process, without a deliberate will from the entrepreneurs (Brown and Butler, 1993). Szarka (1990) classifies them in exchange networks (made up of clients and suppliers), communication networks (advisors, enterprises of the same sector, bank officers, etc) and social networks (friends, relatives and acquaintances). It may be thought that those entrepreneurs maintaining a high number of contacts within the communication network have a greater entrepreneurial quality, because contacts take place with specialized stakeholders.

d) Initiative. Among the indicators of initiative, planning capacity or the interest for employees training may be pointed out.

- Planning capacity implies possessing a long term view and avoiding excessive improvisation, which leads to greater probabilities of entrepreneurial success and, therefore, a higher entrepreneurial quality. A yearly written plan for the different areas of the business, or a well-defined strategy in the medium or long term, are appropriate indicators.
- The interest in training of employees is also an energizer behaviour of great relevance, as they are the main asset of the enterprise. A good indicator may be the organization of training courses, or facilitating that employees attend them.

3.2.- Methodology for obtaining and treating the information.

An essential problem to be solved when analyzing the presence of energizer behaviours is the absence of databases of entrepreneurs and, therefore, of information about those behaviours. This problem is largely related with the almost nonexistent tradition -at least in Spain- in carrying out studies about entrepreneurs' qualitative aspects, either from the theoretical or the empirical viewpoints. Therefore, to solve this problem, field studies using personal interviews to a representative sample of local entrepreneurs are needed. The methodology for collection and treatment of the information should include definition of the target population, elaboration of the

questionnaire, selection of sample size, stratification of the sample, carrying out survey groundwork, and statistical treatment.

a) Definition of target population. It will be composed of owners or co-owners of enterprises, located in the geographical area studied and with at least an employee, who carry out the effective management of the business. Several questions may be inferred from this definition. In the first place, the object of analysis should be a real person, i.e., the man-entrepreneur. Secondly, this person should possess -at least- a relevant share in the capital to allow him/her to be considered the owner. Thirdly, the enterprise should be located and develop its activity in the studied area, neglecting those that are simple branches or plants of foreign companies. Fourthly, self-employed without employees should be excluded, as a minimum level of consistency and dimension of the productive unit is needed. Lastly, the entrepreneur will be involved in the management and control of the business, and not simply obtaining a rent in the form of profit. Therefore, the object of study should be the true autochthonous man-entrepreneur, excluding foreign entrepreneurs.

b) Elaboration of the questionnaire. It is necessary to keep in mind some basic considerations. In the first place, entrepreneurs have scarce time for anything different than their own work. For this reason, the questionnaire should be inspired by simplicity and clarity, both of the questions and of the possible answers. In this sense, closed answers, although probably imply loss of valuable information, speed up responses, help to better define and specify those answers, and allow interviewees to confront the questionnaire in a more relaxed way -as they know roughly the time they will dedicate to completion-. In the second place, to pick up as much information as possible about the aspects defining and determining the entrepreneur's quality, questions should concern the indicators pointed out in the model of quality.

c) Selection of sample size. Since there are no databases available, as it has already been pointed out, the size of the target population is ignored. Therefore, selection of sample size and stratification according to different variables is difficult. In some of the studies carried out, certain databases of enterprises have been taken as representative of the population. These are, for example, those of the Social Security system, or other public bodies. However, they suffer of a series of deficiencies. Firstly,

the number of enterprises does not correspond to the number of entrepreneurs, because many entrepreneurs own more than one enterprise, and because some firms are only subsidiaries of national or international enterprises, and the entrepreneur as defined here, does not exist in them. Secondly, many of the enterprises simply no longer exist or have changed its name, because the databases are not completely up-to-date.

d) Distribution of the sample size. Stratification is needed, at least, along the following variables: activity sector; size of the enterprise; area where it is located inside the studied region; sex and age of the entrepreneur. Obviously, as more strata are included, sample size needs to increase so that the sample is representative of each stratum.

e) Survey groundwork and basic statistical treatment. A new difficulty arises here: the mistrust of entrepreneurs about revealing any type of information, much greater when questions relate economic-financial aspects. This mistrust can only be overcome by means of personal interviews, usually agreed by telephone and, sometimes, given the difficulty in contacting the entrepreneur, visiting the premises without any previous notice. The analysis of those basically qualitative data should be based on contingency tables showing the relative frequencies among each pair of variables.

3.3.- Elaboration of an index of entrepreneurial quality.

Once the information obtained through the questionnaire has been tabulated, an index of entrepreneurial quality may be built, applying the model developed in the second section. Thus, we will obtain a relative indicator to classify the target population in different groups of entrepreneurs according to their greater or lower quality level. It is important, therefore, to consider these results as a reference of the entrepreneurs' relative position within the group, and not as a measure of their absolute level of quality.

It has already been indicated that the entrepreneurial quality is determined by two types of variables: motivation and energizer behaviours. However, those variables correspond with two very different qualitative orders, because motivation is not directly observable, but rather it reflects the interviewee's opinions or feelings. Meanwhile,

behaviours refer to concrete actions carried out. Summing up both types of variables could cause an important problem of aggregation and consistency of the index. In this sense, to guarantee greater homogeneity and consistency, only those answers relative to energizer behaviours will be taken into account. In any case, if the index is valid, it should present a highly significant relationship with entrepreneurial motivation.

On the other hand, the behaviours derived from the four above-mentioned characteristics may be many and very varied, and the inclusion of one of them, and not other, as representative of each category could be to a certain extent arbitrary. At the same time, it is obvious that entrepreneurs may make their decisions for different reasons -their own initiative or forced by the circumstances-. Therefore, in the elaboration of the index we have tried to use -as far as possible- more than one variable to represent each one of the behaviours.

The concrete form of representing the entrepreneurial quality will consist on the definition of four dichotomical variables to measure whether the entrepreneur carries out the behaviours included in each one of the four categories. These are:

- *Ambition index.* To define this variable we have used the answers to two of the questions: whether entrepreneurs have enlarged their enterprise in the last three years; and whether they have thought about enlarging it in the following year. It is considered that ambitious entrepreneurs would respond affirmatively to the two questions (if so, the ambition index will take the value 1, taking the value 0 in any other instance).
- *Innovation index.* Innovative activity can be quite wide, so diverse possibilities must be considered. Concretely, we have included three variables: to have developed some R+D project within the enterprise in the last three years; the launching of new products or services (in this case, not only having introduced them in the last three years, but also planning to continue doing so in the following year); and carrying out export activities. If anyone of those three behaviours is performed, we will consider the entrepreneur to be innovative (value 1). If not, the index will take the value 0.
- *Collaboration index.* The collaboration capacity of entrepreneurs is, probably, the quality more difficult to measure, so two types of behaviour have been

included. The first of them, more obvious, consists on having established some kind of formal agreement with other enterprises of the same activity. However, the use of more diverse cooperation networks than the mere relationships with clients and suppliers entrepreneur is also considered. Specifically, we will also consider the use of “communication networks” as an usual mean of information for the enterprise. The index will take value 1 if the entrepreneur performs any of the two conditions, and 0 if none of them is performed.

- *Initiative index.* The behaviours derived from the initiative capacity can also be, in principle, very diverse. However, we have considered that an entrepreneur possesses initiative only when carrying out two of them (planning and employee training), with a value of 1, and 0 in any other case.

Obviously, the consideration of an entrepreneur as ambitious, innovative, collaborator, or with initiative, is something relative, and it will depend on the specific way in which we have defined these indexes. Since different behaviours are derived from each attribute, the possible forms of defining the partial indexes are very numerous. At the same time, definition may be more or less demanding (requiring the carrying out of a behaviour among three possible, or two, or even the three). Therefore, it must be clear that the quality index, as well as each one of the partial indexes, is not an objective and universal indicator of quality, but rather it allows the classification of the population studied according to the different manifested levels of quality.

Table 1
Definition of the Entrepreneurial Quality Index

Sum of the partial indexes	0	1	2	3	4
Quality Index	0		1		2

Source: self-elaboration

Thus, we can define the entrepreneurial Quality Index as the sum of the four partial indexes that we have just identified. The interpretation is straightforward: an entrepreneur carrying out the four types of energizer behaviours will present the highest level of quality; on the other side, if none of the behaviours is performed, the entrepreneur will present the minimum level of quality. Finally, to make the Quality Index (QI) more operative, we have grouped it in three categories (Table 1). This way

the analysis is much clearer, allowing the consideration of entrepreneurs in only three categories (that could be labelled as low, medium and high quality).

According to the model of entrepreneurial quality defined, the entrepreneur's motivation needs to be taken into consideration as well. In this sense, although that variable has not been included in the construction of the index, it has to be tested. High quality entrepreneurs, if the index is correctly built, should present a significantly greater intrinsic motivation than those of medium and low quality. If that is not so, some deficiency should exist in the construction of the index, or in the survey design and implementation.

In the same way, the theoretical model establishes a previous necessary condition to be able to speak of quality entrepreneurs, the preference to work self-employed. A high quality should not be expected from those individuals that, all else equal, would prefer a salaried work. Therefore, a narrow relationship should also exist between the preference for working self-employed and the level of entrepreneurial quality shown through the index.

The following phase of the study consists on analyzing the differences among the groups of high, medium and low quality. In the first place, a certain consistency should be expected among the answers given by the interviewees to the different questions. In this way, although only certain behaviours have been selected for construction of the Quality Index, those presenting a higher level will also show, probably, other energizer behaviours. Therefore, their enterprises should be larger, with a more developed management system, and operating in wider markets (with regard to both their clients and their suppliers), for example.

Lastly, seeking possible implications for entrepreneurial promotion policy and economic development, it is especially important to analyze which are the variables that affect that quality level. According to the model adopted, the variables from the entrepreneur's personal environment would have a very important effect: education, experience, and the family. The possible explanatory variables within this local environment would be the following: level of studies, specific business studies, having

previous experience in the sector, years of experience, having a parent entrepreneur, or having received family help for the development of the enterprise, among others.

The global environment, on the other hand, would have a limited explanatory power, as it exerts its effect on the whole of the entrepreneurial population. In any event, their influence would show in the average quality level of the sample. Where the factors of that global environment are more favourable, the group of entrepreneurs of high quality will be proportionally greater, while if the global environment is unfavourable, the average quality of entrepreneurs will be lower. If the study were carried out for two different populations, the variables of the global environment should help explain the different quality level among them.

4. The quality of the Sevillian entrepreneur

In this section, in order to demonstrate the operability and validity of both the theoretical model elaborated and the designed empirical methodology, we will carry out an application to a concrete entrepreneurial reality: the entrepreneurs of the province of Seville. Inside Andalusia the interest for regional economic development has notably grown in the last few years, due to their lower development level relative to the rest of Spain. In this sense, we understand it is essential to deepen our knowledge about the characteristics of entrepreneurs in the region. This application seeks to contribute to that knowledge.

In the first place, regarding methodological considerations, it is necessary to point out that the questionnaire was designed to pick up information on the indicators of energizer behaviours. As for the sample, it comprised 278 entrepreneurs, and the Social Security system database of Andalusian enterprises was used as the target population (supplied by Professor Díez de Castro et al., 1995, in their study of the Andalusian enterprise). In this sense, the sample size was not very different to those used in similar studies carried out in Spain (Sanchis et al., 1989; Guzmán, 1995, Toribio, 1998). The groundwork was carried out in the year 1997.

When building the index, the first step consists on the construction of the four partial indexes, according to the indications laid down in the previous section. Summing

up those four partial indexes and grouping them into three categories leads us to the Quality Index, with the results shown in Table 2.

The first thing to highlight is the low average quality level of the Sevillian entrepreneurs which, on the other hand, it is consistent with the relatively low level of economic development in Andalusia. As can be seen, the distribution of the sum of partial indexes presents a bell-like shape, with 1 being the most frequent value. So, the most common thing is that Sevillian entrepreneurs only carry out one of the energizer behaviours, followed by those who carry out none of them. Obviously, the results depend on how restrictive the definition of the partial indexes has been. However, in this case, these indexes have been loosely defined. Therefore, it can be reasonably affirmed that Sevillian entrepreneurs present a low quality level.

Table 2
Quality Index of Sevillian entrepreneurs

Sum of the partial indexes	0	1	2	3	4	Total
Number of observations	65	86	55	42	30	278
Quality Index	0		1		2	Total
Number of observations	151		97		30	278

Source: Self-elaboration

In what refers to the consistency of this indicator with the theoretical model, the Quality Index fulfils the demands. Indeed, its relationship with the preference to work self-employed and with intrinsic motivation is highly significant in both instances (p -value < 0.001), as can be seen in Table 3.

On the other hand, as it was foreseen, a significant relationship exists ($p < 0.05$) between the Quality Index and a series of other entrepreneurial behaviours: having computerized business management, assisting to trade fairs, having hired a professional manager, having a wider network of clients and suppliers (beyond the province), or even having practicing students at the enterprise. Thus, the Quality Index may be considered quite solid, in the sense that higher quality entrepreneurs not only carry out the energizer behaviours used to build it, but also another wide range of them.

When examining the results, in the first place, it stands out that Sevillian high quality entrepreneurs have statistically significantly greater enterprises (Figure 2, $p <$

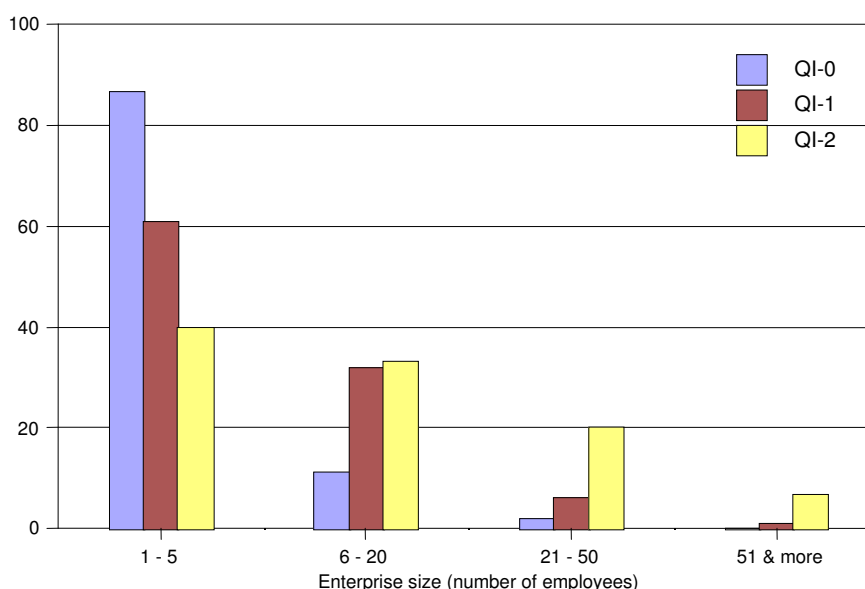
0.01). Besides, within the group of small enterprises (from 1 to 20 employees) a significant difference also exists: low quality entrepreneurs almost exclusively own micro-enterprises of up to five employees, while those of high quality own to a much greater extent small enterprises between 6 and 20 employees. Consistent with the adopted model of quality, this relationship shows that enterprise size is a consequence of the entrepreneur's quality level. Therefore, the fact that Sevillian enterprises are smaller than the Spanish average should be interpreted as indicative of a relative low level of entrepreneurial quality in that province.

Table 3
Consistency of the Quality Index of Sevillian entrepreneurs

Quality Index	Working Preference			Type of Motivation		
	Self-employed	Salaried	Total	Intrinsic	Extrinsic	Total
0	94	57	151	64	87	151
1	74	23	97	52	45	97
2	26	4	30	20	10	30
Totals	194	84	278	136	142	278
Significance levels	T test for the equality of the means ANOVA		0,000 0,000	T test for the equality of the means ANOVA		0,001 0,001

Source: Self-elaboration

Figure 2
Distribution of enterprises by size and quality level of the entrepreneur (%)

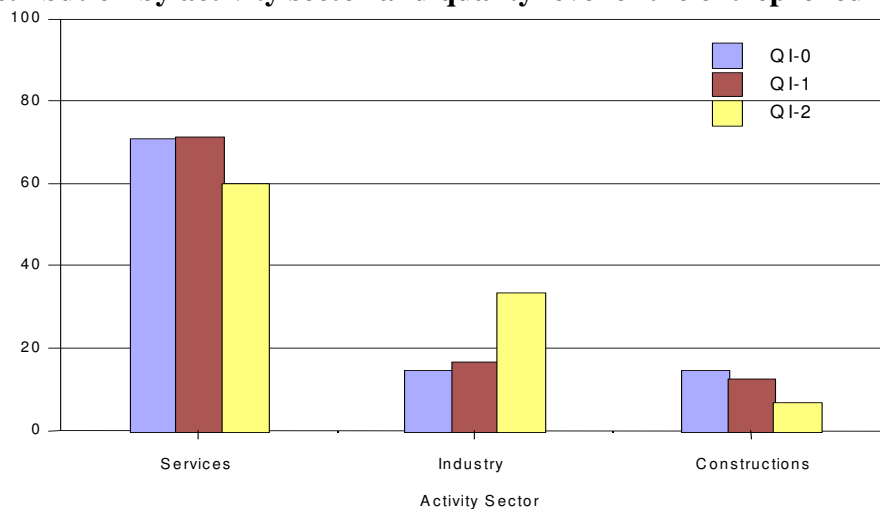


Source: Self-elaboration

In relation to the activity sector, Figure 3 shows the greater presence of industrial entrepreneurs in the higher quality group, with smaller presence in services and construction. This could be due to an inclination of low quality entrepreneurs to

avoid industrial activities (as these tend to be more complex) concentrating on others that are simpler. However, the modern professional or technological service activities also imply a high degree of complexity, so the distinction is not so simple. Maybe for this reason, sector differences are not significant on an aggregate level. In any event, it is interesting to point out that the differences among low and medium quality entrepreneurs are very small, and only those of high quality show a differential behaviour.

Figure 3
Distribution by activity sector and quality level of the entrepreneur (%)



Source: Self-elaboration

There are other significant relationships, as the established between legal form and quality level: higher quality entrepreneurs opt to a much greater extent for public limited companies, while those of lower quality prefer not to use limited companies. However, this relationship is probably derived from that between quality and enterprise size, since this last feature obviously conditions the legal form.

In what refers to the possible explanatory variables, a detailed statistical validation of the whole model cannot be done here, due to time and space constraints. However, the existence of significant relationship in this study among possible causal variables and the Quality Index may be highlighted. In this brief analysis, we will only refer to the variables of the so-called “personal environment of the entrepreneur”.

Education. The model predicts a positive relationship with the quality level. In our study, we have found that this relationship exists, and that it is significant ($p <$

0.05). Almost half of high quality entrepreneurs have university studies (46.7%), while in those of medium and low quality only 25.8% and 12.6%, respectively, have them. In contrast, the entrepreneurs with primary education are only 23% of the high quality group, 34% of the medium quality group, and 47% of the low quality one. Finally, high school is much less frequent in high quality entrepreneurs, but there are not relevant differences with respect to vocational training.

Experience. In this group of variables dissimilar results are obtained. On the one hand, previous knowledge of the sector is significantly related ($p < 0.05$) to the quality level, although it is a complex relationship. Higher quality entrepreneurs knew the sector to a greater extent (86.7%), while among the other two groups -although the difference is not large-, medium quality entrepreneurs knew the sector less than those of low quality (74.2% and 78.1%). A possible explanation would be that the lack of knowledge is not decisive in the inferior levels of quality, but it is for the superior level. So, high quality entrepreneurs show higher knowledge of the sector. On the other hand, the number of years of experience does not seem to have any influence on quality however measured (years as entrepreneur, age of the entrepreneur, or age of the enterprise). In this sense, experience may have a relationship with start-ups (entrepreneurial emergence) more than with the entrepreneur's quality.

Family. The influence of the family on the entrepreneur's quality is extremely difficult to measure, because it normally takes place through very subtle qualitative mechanisms. The lack of relationships in this study between the quality level and the variables related with the family would be due to not having being sufficiently able to capture those qualitative aspects. Thus, having parents entrepreneurs does not show any relationship to quality, although other studies indicate the opposite (Scherer et al., 1991). Equally, having received financing or personal contacts from the family is not significant either. On the other hand, there is a significant inverse relationship among manpower help and quality level: those who did not receive help in the form of employment from members of their family present a higher quality.

Regarding the global environment, it has been already mentioned the little differential effect that it may exercise in this instance, since that environment must necessarily be very similar in the whole province of Seville. At the most, one could

expect the metropolitan area to present some more favourable conditions than the rest of the territory, due to its greater market size, higher offer of professional services, better infrastructures -especially communication ones-, and so on. Thus, the fact that a very significant relationship exists between geographical area and quality level could serve as an indirect confirmation for the importance of the global environment, since it shows how higher quality entrepreneurs tend to concentrate on that metropolitan area.

Finally, in relation to entrepreneurial development policy that is being implemented, it is highly relevant that no significant relationship exists between quality level and applying for subsidies or receiving help from Local Development Agencies. It may be concluded, therefore, that the current support policies for entrepreneurs are not contributing to raise the quality level of autochthonous Sevillian entrepreneurs (nevertheless, they may be contributing to increase the start-up rate, although this cannot be established through this study). The need to modify the current entrepreneurial support strategies to better contribute to develop a higher quality entrepreneurial fabric becomes therefore apparent.

5. Conclusions

The analysis of the role carried out by the entrepreneur in the economy is not still sufficiently developed. However, this needs to be changed, as the entrepreneur occupies a pre-eminent role in a market economy, especially nowadays with increased competition as a consequence of the globalization process.

As it may be seen in this paper, the analysis of the entrepreneur's behaviours is a complex issue. Firstly, it is necessary to keep in mind that such behaviours are not innate, because they are influenced by a whole series of personal, economic, social and cultural variables, which requires a multi-disciplinary methodology. Secondly, as there is not a clearly defined population universe of entrepreneurs, the results derived from the different analyses of the data are to be taken with caution.

Precisely to overcome this complexity, this paper seeks to contribute to the establishment of a methodological framework that stimulates future research in this area of knowledge. In this sense, the theoretical model developed allows definition of the

characteristics a quality entrepreneur should possess and the factors that influence them. Starting from it, empirical work may advance with solid bases. Predetermination of the stages to follow in the empirical methodology for the analysis of that entrepreneurial quality may be important, as it would allow to carry out similar researches in different economies and, therefore, comparing results, which is presently impossible.

Within this empirical methodology, it stands out the importance of the elaboration of an entrepreneurial quality index. This index, as it has been explained, allows obtaining a clear idea of the entrepreneurial quality level in a certain area, grouping entrepreneurs according to their quality, and establishing a profile for the quality entrepreneur. The results thus obtained will allow a good diagnosis and the elaboration by decision-makers of more appropriate measures to promote the entrepreneurial quality.

Finally, this empirical methodology has been applied to the entrepreneurs of Seville to demonstrate its validity and operability. This application shows that both the model of quality and the quality index offer good results in practice, consistent with the theory, and statistically significant. In the particular case of Sevillian entrepreneurs, it may be concluded that their quality level is quite low and, therefore, the substantial backwardness with respect to other areas in the country might be considered a logical consequence. Besides, the development policies presently applied do not seem to be contributing to the improvement of the entrepreneurial quality levels in the province.

6. References

- Ato García, M. and López García, J.J. (1996): *Análisis estadístico para datos categóricos*. Síntesis. Madrid.
- Cappellin, R (1991) "The New Gravity Centers of Regional Development in the Europe of the 90's". *XVII Reunión de Estudios Regionales*, Barcelona.
- Brown, Brad and Butler, John E. (1993) "Networks and Entrepreneurial Development. The Shadow of Borders". *Entrepreneurship and Regional Development*, vol 5. num. 2, pp. 101-116.
- Costa Campi, M^a Teresa (1992) *Los Distritos Industriales y Las Pequeñas Empresas*. Vol I. *Distritos Industriales y Cooperación Interempresarial en Italia*. Ministerio de Trabajo y Seguridad Social, Madrid.
- Diez de Castro, Emilio et al. (1995) *La Empresa en Andalucía*. Ed. Cívitas, Madrid.
- Genesca Garrigosa, E. and Veciana Vergés, J. M. (1984) "Actitudes Hacia la Creación de Empresas". *Información Comercial Española*, num. 611, pp. 147-155.

- Gibb, Alan A. (1993) "The Enterprise Culture and Education: Understanding Enterprise Education and its Links with Small Business, Entrepreneurship and Wider Educational Goals". *International Small Business Journal*, vol 3, num. 11, pp 11-34.
- Guzmán Cuevas, Joaquín (1994) "Towards a Taxonomy of Entrepreneurial Theories". *International Small Business Journal*. vol 12, num. 4, pp 77-88.
- Guzmán Cuevas, Joaquín (1995). *El Empresariado en la Provincia de Sevilla*. Diputación de Sevilla, Ed Sevilla Siglo XXI S.A, Sevilla.
- Guzmán, J and Santos, F.J. (2001) "The booster function and the entrepreneurial quality: an application to the province of Seville", *Entrepreneurship and Regional Development*, vol. 13, num. 3, pp. 211-228.
- Hagen, Everett E. (1962) *On the Theory of Social Change: How Economic Growth Begins*. Massachusetts Institute of Technology. The Dorsey Press Inc, Homewood, Illinois.
- Hebert, Robert F. and Link, Albert N. (1989) "In Search of the Meaning of Entrepreneurship". *Small Business Economics*, vol 1, pp. 39-49.
- Knight, Frank (1948) *Risk, Uncertainty and Profit*. (1ª edición .Houghton Mifflin Company. The Riverside Press Cambridge. 1921) The London School of Economic and Political Science, Houghton Street, Aldwich, London.
- McClelland, David C. (1961) *The Achieving Society*. The Free Press, London.
- Sanchis, Enric, Picó, Josep and Olmos, J.M. (1989) "La Nueva Pequeña Empresa de la Industria Valenciana". *Revista Sociología del Trabajo*, num. 5, pp 41-65.
- Santos, F. J. 1998 *La Teoría de la Función Empresarial: Una Aproximación Cualitativa al Empresario Sevilliano*. Doctoral Dissertation. Universidad de Sevilla. Sevilla
- Scherer, R.F.; Brodzinsky, J.D. and Wiebe, F.A. (1991): "Examining the relationship between personality and entrepreneurial career preference". *Entrepreneurship and Regional Development*, vol. 3, pp. 195-206.
- Schumpeter, J.A. (1944) *Teoría del Desarrollo Económico*. (1st Published in German in 1911). Fondo de Cultura Económica, México.
- Sombart, Werner (1993) *El Burgués* (1st Published in German: Der Bourgeois, 1913). Ed Alianza, Colección Alianza Universidad, Madrid.
- Szarka, J (1990) "Networking and Small Firm". *Journal of International Small Business*, vol 8, num. 2, pp. 1-15.
- Toribio Muñoz, M. Rosario (1996) *Factores Característicos del Empresario Gaditano. Políticas de Fomento*. Doctoral Dissertation, Universidad de Cádiz.
- Vázquez Barquero, Antonio (1993) *Política Económica Local*. Ed Pirámide, Madrid.
- Veciana Vergés, José María (1989) "Características del Empresario en España". *Papeles de Economía Española*, num. 39, pp. 19-36.
- Vélaz Rivas, J. Ignacio (1996) *Motivos y Motivación en la Empresa*. Ed. Diaz de Santos, Madrid.
- Weber, Max (1969) *La Ética Protestante y el Espíritu del Capitalismo*. (1st Published in German: *Protestantische Ethik 1904*) Ediciones península, Barcelona.