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## Entrepreneurial behavior: Impact of motivation factors on decision to create a new venture

Virginia Barba-Sánchez\*, Carlos Atienza-Sahuquillo

Business Administration Department, Castilla-La Mancha University, Edificio Infante Don Juan Manuel, Pº de los Estudiantes s/n, 02006 Albacete, Spain

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### ABSTRACT

Newly created enterprises increase the dynamism of economies and generate employment. Thus, they are the object of growing research interest. Forming a new company represents a decision based on both personal and subjective motives, as well as on the environment. But regardless of the origin, a founder's motivation represents a commitment to a project or business idea, and thus dictates the future success of the enterprise. This article investigates the motivational profiles of entrepreneurs, and why they choose to create new industrial enterprises. To detail this profile, we present the results of an empirical study of 101 entrepreneurs who have founded companies. The results offer significant conclusions for both academics and practitioners. Firstly, making money or being one's own boss does not appear to be sufficient reasons to create a new venture. Secondly, the motivation content of entrepreneurs influences their decision to start a business. From these conclusions, some relevant guidelines are suggested.

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## Comportamiento emprendedor: impacto de los factores motivacionales en la decisión de crear una nueva empresa

### RESUMEN

Debido a que la creación de empresas incrementa el dinamismo de las economías y genera empleo, está siendo objeto de un interés investigador creciente. La formación de una nueva empresa representa una decisión basada tanto en motivos personales y subjetivos como en factores del entorno. Pero, independientemente del origen, la motivación del fundador supone un compromiso con un proyecto o idea de negocio y, por lo tanto, determina el éxito futuro de la empresa. En este sentido, este artículo investiga los perfiles motivacionales de los empresarios y por qué estos optan por crear nuevas empresas industriales. Así, se presentan los resultados de un estudio empírico realizado sobre 101 emprendedores, que ofrecen conclusiones significativas tanto para los académicos como para los profesionales, entre las que destacan dos: *ganar dinero* o *ser su propio jefe* no parecen ser razones suficientes para crear una nueva empresa; y el contenido de la motivación de los emprendedores influye significativamente en su decisión de iniciar un negocio. A partir de estas conclusiones, se sugieren algunas recomendaciones.

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### 1. Introduction

The active participation of newly created enterprises in dynamic economies has attracted significant academic interest (Acs and Mueller, 2008); however, these studies rarely involve economic theory (Lazear, 2005). Most empirical work instead centers on the theory of the enterprise, including the process and issues of free

enterprise (e.g., Cooper and Dunkelberg, 1986; Veciana, 1999). This article instead adopts the perspective of entrepreneurs to investigate their motivational profile and the behavioral reasons that might lead them to create a new industrial enterprise.

Whereas there are different motivation theories which attempt to explain the employee's behaviour in general, few academics have applied these theories to the study of the entrepreneur (Canabal and O'Donnell, 2009). The review of the literature proves that having an entrepreneurial psychological profile makes a strong difference (see Barba-Sánchez and Martínez-Ruiz, 2009). Although the referred

\*Corresponding author.

E-mail: Virginia.Barba@uclm.es (V. Barba-Sánchez).

studies can not be directly compared to each other since they differ in the variables considered, all of them suggest the following as entrepreneurs' features (e.g. Stewart et al., 1999; Delmar and Davidsson, 2000; Douglas and Shepherd, 2002; Davidsson and Honig, 2003; Parker, 2004; Reynolds et al., 2004; Shepherd and DeTienne, 2005; Kolvereid and Isaksen, 2007): independence desire, higher tendency to risk, higher need for achievement, locus of internal control, and higher preference for innovation. Yet, the question remains unanswered as to whether certain individual characteristics, traits and abilities among nascent entrepreneurs tend to have a key influence on the decision to become self-employed.

In this empirical paper, we draw on a number of previous theoretical studies to provide an analysis of such primary determinants and their corresponding effects, in an effort to map traits and characteristics of greatest relevance to start-up decision-making in the context of the entrepreneurial personality. The start-up decision is thus seen as the product of motives and intentions that vary according to individual entrepreneurial traits and abilities.

The paper complements recent works by combining different individual factors which form attitudes towards self-employment in an entrepreneurial decision model. We conclude that different entrepreneurial motives follow different intensities of these factors. From the empirical research, seven main entrepreneurial motives can be established. We integrate these seven major drivers of entrepreneurship into the decision model by assigning determinants to motives and use this framework to explain the orientation and type of entrepreneur established.

The remainder of the paper is structured as followed. The second part presents the theoretical framework for understanding the entrepreneurial behavior and the motives for creating a business. The third section presents the sample and the research methodology. After results are reported (section 4), the main conclusions, and recommendations are outlined in section 5. The final section offers limitations and future research.

## 2. Conceptual Framework

Rational models long served to describe and predict human behavior, but they suffered from a lack of information (Busenitz and Lau 1995). The vast number of alternative behaviors is too many to consider individually, such that researchers cannot reasonably predict satisfaction related to the consequences of particular behaviors. Furthermore, people usually cannot resolve their related complications quickly or easily, which implies that real decisions are not given an absolute objective rationality, but segments of rationality. Within each segment, behavior seems to follow a rational order, but in the space between the segments there exists a lot of inconsistency that does not respond to an idealized decision-making scheme (Lee et al., 2011).

The limitations in the information available and human rationality prompted Simon (1976) to propose motivation as a means to supplement explanations of human behavior: A person accepts a priori set of assumptions that simplify subsequent behavioral choices. These assumptions are based on the motivation or inclination to act in a certain way. Accordingly, Birch (2009) distinguishes *intention* or the commitment to act into two components: structural or *plan* and dynamic or *motivational*.

This model reflects the *dynamic theory of action* proposed by Atkinson and Birch (1978), in which a person's life is a continuous stream of behaviors, characterized by changes from one activity to another. The action preferred in a multiple choice situation is that for which the motivation is more positive. The intensity and persistence of the response then is a function of the intensity of the motivation to perform that action, compared with the force of the motivation to perform other actions.

In turn, the motivational system of a particular person should have a decisive influence on his or her behavior, though it is not the only determinant. According to Naffziger, Hornsby, and Kuratko (1994), the performance of individuals is influenced by its intrinsic nature and at the same time, it is a reflection of their internal stimuli, i.e., their needs, attitudes and values. A person's intrinsic nature depends on his or her perceptions and subjective view of the world, potential or innate abilities, and personality. Variables such as effort, ability, previous experience, age, education, family history, and environment thus influence behavior, such as the choice to become an entrepreneur.

The decision to start a business, according to Plehn-Dujowich (2010), consists of two levels: rational and motivational. The rational level focuses on objective reasons to adopt the task, including the environmental conditions that reinforce or penalize certain behaviors (Skinner 1987). The motivational level instead refers to subjective reasons that reflect the decision maker's expectations.

Any analysis of entrepreneurial behavior must consider the reasons for this decision. They are a necessary, if not sufficient, element to explain the entrepreneurial process (García-Villaverde, Saez-Martínez and Barba-Sánchez, 1999). Although prior literature does not discuss the influence of psychological dimensions on decisions, several authors agree that three distinctive needs or motives mark entrepreneurs (e.g. Brockhaus and Horwitz 1986; Herron and Robinson 1993): for achievement, for competition, and for independence. We also consider other factors, such as a weak need for affiliation, the need for power, a tolerance for ambiguity, preferences for innovation, a willingness to take risks, and proactiveness or persistence.

Starting with McClelland (1961), the *need for achievement* has been associated with entrepreneurial behavior. This need prompts a strong desire to do things well, or better than others, including those with authority. People with a high need for achievement likely make plans in advance. They also enjoy taking personal responsibility and prefer quick, specific feedback about their actions. Empirical studies recognize the need for achievement in the form of the entrepreneurial intentions of a given population, as well as in retrospective studies of the attitudes and characteristics of existing entrepreneurs. Regardless of the approach, many studies thus highlight the importance of a need for achievement as a characteristic of entrepreneurs and an influence on business success.

Regarding the *need for competition*, White (1959) has proposed the notion of *competence* or an ability to deal effectively with the surrounding environment. It pertains to a person's desire to understand the physical and social environment and thereby learn how to obtain desired outcomes from it. Most literature also notes the importance of an *internal locus of control*, which implies that the person believes his or her actions, rather than random elements, luck, or chance, lead to outcomes. Therefore, the need for competition is consistent with a high achievement orientation, because an internal locus of control causes the entrepreneur to believe his or her actions will influence the results.

Existing research on this psychological attribute offers two uses: (1) as a differentiating factor for entrepreneurs or (2) as critical to the success of a business. In the first stream, some authors distinguish entrepreneurs from the rest of the population, but rarely do they discriminate between different types of entrepreneurs, who all instead seem characterized by a need for competition. However, entrepreneurs may reflect different typologies, depending on the extent of their need for competition.

Finally, the *need for independence* is a psychological trait that many empirical studies offer as characteristic of entrepreneurs or a driver that enhances entrepreneurship.

Based upon the foregoing theory, the aim of the paper is to provide a deeper understanding of the main motivational factors for entrepreneurs in order to identified the entrepreneurial profiles and

analyse the relationship between motivation and ability to engage in entrepreneurial behavior. Formally, we hypothesize that: there are certain motivational reasons of the entrepreneur, such as the need for achievement, self-realization, independence, affiliation, competence, and power, will have more influence on the decision to start a business, than do other reasons, such as making money or being one's own boss.

### 3. Research Method

Following prior research, we focus on the reasons people express for why they start a business and the influence of those reasons on their entrepreneurial behavior. This empirical study is based on data collected using the survey methods reported in this section. The methodology we used to conduct this study is reported in the following three sections: data collection, measurement and data analysis.

#### 3.1. Data Collection

A lack of secondary information about the entrepreneurial motivations of entrepreneurs prompted us to conduct a fieldwork survey among Spanish businesspeople who had established manufacturing companies in last year. We collected the data for this study via questionnaire surveys. The design of the postal survey reflected our review of major international studies. After developing the self-report questionnaire internally, two stages of pre-tests were conducted via in-person interviews with founders of a convenience sample of twenty firms, not included in the final sample. These pre-tests provided valuable information used to adjust the instrument before the survey was mailed in three waves to a population of 2,848 new ventures (Table 1). A survey was forwarded by mail to all contacts. A follow-up survey was subsequently mailed to non-respondents. Overall, 117 questionnaires received from founders, but only 101 were correctly completed, which indicated a confidence level of 95% and a sampling error of 7.8%.

The data suggest that Spanish entrepreneurs are mainly men (only 9% of the respondents were women), whose average age is 40 years but who started working in the business world at 29 years of age. Furthermore, 54% have a family; before they started their own business, they mainly worked for others and accumulated nearly 10 years of experience, usually in the same sector. Their education level is average (secondary), though 13% did not finish their compulsory education (i.e., primary school).

Regarding the characteristics of the companies they created, most respondents chose limited liability companies, though they retained most decision power and reserved rights to more than 50% of the capital. These companies also mainly represented micro businesses, because their average number of workers was only 6.505.

#### 3.2. Measurement

This research aims to identify the main reasons entrepreneurs start their own businesses. To test the framework, a survey instrument was developed and administered to founders of new ventures.

**Table 1**  
Survey characteristics.

Target population:	New manufacturing ventures (<1 year)
Population size:	2848 new ventures
Geographical survey:	Castilla-La Mancha Region (Spain)
Sample size:	101 questionnaires
Sampling unit:	Enterprise
Sampling error (confidence level):	7.8% (95%)
Respondents:	Founders of new ventures

Source: own development.

Therefore, we began by reviewing contributions from various authors (e.g. Scheinberg and Macmillan, 1988; Birley and Westhead, 1994; Crant, 1996; Robichaud et al., 2001; Shane et al., 2003; Lee et al., 2011) and utilizing *Amabile's Work Preference Inventory* (WPI) to examine the motivational dimension of entrepreneurial intentionality (Amabile et al., 1994). Finally, the survey instrument contained 23 quantitative items (Table 2) that likely define an entrepreneur's motivation (all measured on five-point Likert scales).

#### 3.3. Data Analysis

Following Robichaud et al. (2001), we used confirmatory principal components factor analysis to reduce the number of variables and facilitate our interpretation of the results. After we identified the main motivational factors for entrepreneurs, we attempted to analyze the influence of these factors on entrepreneurs' entrepreneurial behaviors. Therefore, in line with Dubini (1988), Westhead and Wright (1997) and Stewart et al. (1999), we used the motivational factors we previously identified to establish a typology of entrepreneurs, according to a cluster analysis. Finally, we conducted an analysis of variance (ANOVA), with the decision to create the company again as the dependent variable and cluster membership as the independent variable.

### 4. Analysis and Results

#### 4.1. Motivational factors

Using the information provided by the company founders in our sample, we examined the latent dimensions that are summarized in the information contained in the 23 items related to the reasons to create a company, using factor analysis, and thus determined which motivational factors were most influential. However, before doing so, we tested the appropriateness of the correlation matrix for the factor analysis, using several methods that revealed the adequacy of the data, namely, the determinant of the correlation matrix (0.0000517), the KMO index (0.824), and the Bartlett test of sphericity ( $\chi^2 = 893.220$ ;  $p = 0.000$ ) (see Bartlett, 1950).

**Table 2**  
Motivational Scale of Entrepreneurial Intentionality and Mean Score for Motivation of Entrepreneurs.

Code	Items	Mean <sup>a</sup> (Standard Deviation)
MOT8L	To create my own job	4.15 (1.23)
MOT18L	To develop an idea	4.02 (1.20)
MOT10L	To do things my way	3.93 (1.22)
MOT23L	Personal growth	3.80 (1.31)
MOT4L	To exploit a business opportunity	3.66 (1.26)
MOT1L	To have an interesting job	3.58 (1.23)
MOT15L	Personal self-realization	3.54 (1.49)
MOT20L	To be my own boss	3.54 (1.36)
MOT13L	A desire to be independent	3.50 (1.43)
MOT19L	To cover my personal needs	3.43 (1.25)
MOT7L	To have economic security	3.36 (1.32)
MOT17L	To overcome a challenge	3.36 (1.49)
MOT16L	To have financial autonomy	3.35 (1.25)
MOT9L	To gain more flexibility in my personal life	3.26 (1.44)
MOT2L	Warm work relations	3.24 (1.26)
MOT21L	To fulfill a dream	3.12 (1.46)
MOT3L	To contribute to the welfare of the community	2.97 (1.24)
MOT22L	To earn a lot of money	2.75 (1.28)
MOT11L	Social status and prestige	2.36 (1.24)
MOT12L	Family tradition	2.36 (1.54)
MOT5L	To follow the example of someone admired	2.20 (1.41)
MOT14L	To be accepted socially	2.06 (1.14)
MOT6L	Work frustration	1.70 (1.17)

<sup>a</sup>5 = extremely important, 4 = very important, 3 = mildly important, 2 = not very important, 1 = unimportant

Source: adapted from Work Preference Inventory (WPI) (Amabile et al., 1994: 956).

From the factor analysis, we obtained seven factors with eigenvalues greater than or equal to the value from all 23 items. These seven factors, extracted through principal components methods, together explained 67.4% of the total variance. In addition, the commonalities between the variables and factors were high, with values greater than 0.51, which indicated that they explained a high percentage of the variability.

To interpret the factors more easily, we also performed a Varimax rotation and obtained a new matrix with a linear combination that explained the same amount of variance, though the factors focused more on saturated variables. Table 3 displays this rotated factor matrix. On the basis of its factor scores, we also could establish an interpretation of the factors resulting from the analysis.

The **first factor** (FACT1) was strongly saturated with the specific variables *overcome a challenge* (MOT17) and *personal growth* (MOT23), with values greater than 0.7. Both variables directly related to the need for achievement, that is, people's desire to test their ability to meet challenges and perform daily activities better (McClelland, 1961). Furthermore, the variables *fulfill a dream* (MOT21) and *develop an idea* (MOT18) indicated high loadings (0.69352 and 0.66396, respectively) on this factor, which indicated the need for success, in that both pose potential challenges.

Moreover and with high saturation (0.67915), we found that the variable *personal self-realization* (MOT15) linked clearly to the need for self-improvement. Understanding this variable as a desire to mature psychologically, developmentally, and personally, it can apparently coincide with some aspects such as the need for achievement (Ahmed, 1985). Although a person's ultimate goal or total satisfaction can be achieved without wanting to prove anything to anyone (not even the self), the need for success demands improvement, such that satisfaction may only induce a greater need to test one's own ability. According to these findings, and to avoid assimilating concepts, we denote this factor need for success and self-realization.

The second factor includes two variables related to a primary human motivation to survive: *cover my personal needs* (MOT19) and *financial autonomy* (MOT16), both with loadings greater than 0.7. In addition, we find high values for the variables *economic security* (MOT7, 0.68376) and *earn a lot of money* (MOT22, 0.64299), so this factor also includes indicates a classical motivation of money as

synonymous with fiscal strength. Finally, the variable *be my own boss* (MOT20), with a saturation of 0.67416, suggests an innate need for independence among entrepreneurs (Veciana, 1989). We name this overall factor economic needs and professional autonomy.

The **third factor** entails the variables *create my own job* (MOT8) and *more flexibility in my personal life* (MOT9), both with very high saturation (0.81226 and 0.77069, respectively). Therefore, this factor indicates a prioritization of the person's personal life over his or her career. In this context, this factor also means self-employment as a career (Gabrielsson and Politis, 2011). The variable *earn a lot of money* (MOT22) also appears, but here it takes a negative sign and smaller value (-0.41345); that is, there is little attraction of the economic dimension of the entrepreneurship phenomenon. Therefore, we refer to this factor as need for personal autonomy.

The **fourth factor** has the highest saturation for *warm work relations* (MOT2), which relates to the need for affiliation, understood as a desire to establish, maintain, or renew friendships with others. Moreover, *contribute to the welfare of the community* (MOT3) achieves a high value (0.66614), which may entail a need for institutional power or a desire to influence others by serving others and exercise power for the benefits of others or society. Finally, *do things my way* (MOT10, 0.65985) is a third variable associated with this factor, which implies that independence of action grants the possession and exercise of some power. We denote this factor need for affiliation and institutional power.

The **fifth factor** instead focuses on *continue a family tradition* (MOT12, 0.84424) and *follow the example of someone admired* (MOT5, 0.61868)—in many cases a father figure. Less weight accrues to the variable *desire to be independent* (MOT13, 0.43423), which initially may seem contradictory with the previous variables. However, it should be understood as a desire for labor emancipation, achieved by being oneself, doing what is correct, and expressing what the person has lived and known since childhood. In this regard, we call this factor need for continuity.

The **sixth factor** involves the highest values for the variables *accepted socially* (MOT14, 0.66164), *job frustration* (MOT6, 0.65847), and *social status and prestige* (MOT11, 0.59379). These notions relate to social needs, beyond a desire to belong to a group and be accepted by it, that involve the need to feel important, or ego need (Atkinson and Birch, 1978). Furthermore, Jenssen and Kolvereid (1992) recognize frustration at work as one of the main triggers for making the decision to start a business. In our case, the influence relates to the desire to gain respect and social admiration. Therefore, the entrepreneur hopes to create a successful company that will grow and provide an influence on the immediate environment (García-Villaverde and Valencia de Lara, 2009). We call it social needs and personal power.

Finally, the **seventh factor** shows the highest saturation for *exploiting a business opportunity* (MOT4, 0.80405) and *interesting job* (MOT1, 0.57274). These variables reflect the notion of competition, understood as an autonomous need for environmental stimulation on the part of the individual, based on an aversion to routine situations and in-depth knowledge, tests of capacity and skills, and an ability to cope with problems and new situations (Ray, 1986; Williams and McGuire, 2010). Thus, we call this factor need for competition.

#### 4.2. Identification of Entrepreneurs

To establish a typology of entrepreneurs in the study region in terms of their motives for starting a business, we establish a cluster analysis. Using the motivational factors identified in the previous section, we adopt a hierarchical method to establish the optimal number of clusters. The best solution, in which the clusters are maximally different from one another (minimum distance between two groups = 2.1555) but contain elements with minimal differences

**Table 3**  
Principal Component Factor Analysis (Varimax Rotation). Factor Loadings (Sorted) for Motivation Variables.

ITEMS	FACT 1	FACT 2	FACT 3	FACT 4	FACT 5	FACT 6	FACT 7
MOT1							.57274
MOT2				.72579			
MOT3			.66614				
MOT4							.80405
MOT5					.61868		
MOT6						.65847	
MOT7		.68376					
MOT8			.81226				
MOT9			.77069				
MOT10				.65985			
MOT11						.59379	
MOT12					.84424		
MOT13					.43423		
MOT14						.66164	
MOT15	.67915						
MOT16		.74892					
MOT17	.86926						
MOT18	.66396						
MOT19		.77801					
MOT20		.67416					
MOT21	.69352						
MOT22		.64299	-.41345				
MOT23	.71902						

Notes: Set values are less than or equal to -0.41 and greater than or equal to 0.41. Source: own development.

(maximum distance from a businessperson to the center of a specified cluster = 0.944), features five clusters. Therefore, we analyze the characteristics of each cluster in motivational terms by undertaking a K-means cluster analysis. The results for each variable (motivational factors obtained through factor analysis) appear in Table 4.

The interpretation of the various clusters reflects the values adopted for each factor, according to the centroids of the different clusters. Therefore, the more positive the value, the more important is the motivational factor for the businesses that constitute that cluster; the more negative the value, the less important it is. Thus, we can describe the different groups.

Cluster 1, with 19 businesspeople, is characterized by *economic needs* and *professional autonomy* as the main motivations, with the highest centroid ranking in the second factor. Furthermore, *need for achievement* and *self-realization* from the first factor and *need for competition* from the seventh factor are negative. Therefore, the members of this cluster have low self-confidence, do not enjoy risk-taking or challenges, and are immature from a psychological point of view. They likely do not intend to create a company, make the most of a business opportunity, or have an interesting job that allows them to develop as individuals; they just want a job that allows them to survive. Therefore, we call this group as self-employed entrepreneurs.

Cluster 2, consisting of 12 businesspeople, shows a maximum value for the centroid of the sixth factor, that is, *social needs* and *personal power*, which indicates a desire for personal enhancement from a work, originating from a feeling of frustration or dissatisfaction with society. This cluster also scores high on the first factor, *need for achievement* and *self-realization*, with a target of being and doing things better to demonstrate the person's worth to a wider society. In addition, it reveals a negative value for the third factor, *need for personal autonomy*. Instead, these businesspeople need others' opinions to reassert themselves as a person. We call this group as ambitious entrepreneurs.

**Table 4**  
Cluster Analysis Results.

Factor	Cluster 1 n=19	Cluster 2 n=12	Cluster 3 n=7	Cluster 4 n=36	Cluster 5 n=27	F Prob
1	-.3615	.5132	1.1510	.2598	-.6090	.000
2	.4240	-.1836	-.8131	.3033	-.3991	.002
3	.0891	-.8525	-.9817	.1543	.3708	.000
4	-.0297	.3030	-.1933	-.3450	.3836	.046
5	.1574	-.3981	1.2313	-.0900	-.1365	.006
6	.1584	1.3841	-.6978	-.2981	-.1592	.000
7	-.4629	.3881	.7171	-.4693	.5757	.000

Notes: Factor 1 = need for achievement and self-realization; 2 = financial need and professional autonomy; 3 = need for personal autonomy; 4 = need for affiliation and institutional power; 5 = need for continuity; 6 = social needs and personal power; and 7 = need for competition.

Source: own development.

**Table 5**  
Analyses of Variance.

Cluster	Decision to Create the Business Again	
	Mean	σ
Self-employed entrepreneurs	1.2632	.4524
Ambitious entrepreneurs	4.7500	.4523
Self-realized family entrepreneurs	4.7143	.7559
Challenge entrepreneurs	4.2286	.8075
Competent and altruistic entrepreneurs	4.7037	.5417

Notes: Statistic F = 101.0466; p-value associated with F = 0.0000. There were significant differences, according to the Scheffé method between the following pairs of clusters: 1 and 2, 1 and 3, 1 and 4, 1 and 5. The mean takes values from 1 to 5 points.

Source: own development.

Cluster 3 is the smallest, with only 8 entrepreneurs. Its most remarkable aspect is the familial tradition of entrepreneurship for these members. The highest centroid value is for the fifth factor, *need for continuity*. In addition, *need for achievement* and *self-realization* and *need for competition* exhibit high values; these people are motivated by challenges and situations that test their skills and abilities to control the environment. However, we find significantly negative values associated with the second (*economic needs* and *professional autonomy*), third (*need for personal autonomy*), and sixth (*personal and social needs* and *personal power*) factors. Money, independence, and self-enhancement thus do not drive these founders. Instead, we refer to them as self-realized family businesses.

Cluster 4, in contrast, is the largest, with 35 entrepreneurs. It is characterized by its eclectic position; these entrepreneurs cite both intrinsic and extrinsic reasons for their decision to start a business. This intermediate position involves positive values for both the first and second factors (*need for achievement* and *self-realization*; *economic needs* and *professional autonomy*). Yet it reveals negative values for *need for competition*, such that these entrepreneurs have little interest in taking advantage of opportunities or controlling the environment. Their low *need for affiliation* and *institutional power* suggests they have little desire to establish personal relationships at work, and minimal *social needs* and *personal power* signal their lack of personal ambition. In summary, the members of this group intend, through the creation of a company, to prove themselves capable and measure business success in terms of the amount of money they earn. Thus, we call them challenge entrepreneurs.

Finally, Cluster 5 includes 27 businesspeople and exhibits a maximum value at the centroid in the seventh factor, *need for competition*. They want to know and control their environment, take advantage of the opportunities it offers, and reduce their routine situation. In addition, this cluster exhibits high values on the third factor, *need for personal autonomy*, and fourth factor, *need for affiliation* and *institutional power*, indicating their independent and altruistic natures. We also find significant negative values for the first and second factors, that is, *need for achievement* and *self-realization* and *economic needs* and *professional autonomy*. These entrepreneurs do not seek personal gain, whether in monetary terms or as personal satisfaction, but rather hope to contribute to the welfare of the community by creating a company that provides jobs and wealth. Therefore, we call this group as altruistic and competent entrepreneurs.

To test the validity of our cluster analysis, we also performed a discriminant analysis. It classified 82% of the entrepreneurs correctly, that is, in the same way as our cluster analysis, including 47.4% of entrepreneurs in Cluster 1, 100% in Cluster 2, 100% in Cluster 3, 91.4% in Cluster 4, and 81.5% in Cluster 5. We thus validate the cluster analysis results. Finally, we analyzed the Spearman's rank correlation coefficient, which revealed a value of 0.7081 and an associated significance level of 0.0000. This result indicates that the clusters generated do not simply reflect statistical inputs.

### 4.3. Impact of Motivational Factors on Entrepreneurial Behavior

As the final step in our analysis, we reviewed the influence of these various motivational factors, from the point of view of prior theories about the decision to start a business. Accordingly, in an analysis of variance (one factor), we considered the potential decision to create the company again (dependent variable) and membership in a cluster (independent variable) to determine if there are any significant differences between the means for each group.

The results of this analysis in Table 5 reveal that the grouping pertaining to the decision to create the company differs significantly from the other group (i.e., significant differences according to Scheffé's method). Only the group of self-employed entrepreneurs

would not be willing to create their company again, whereas the other entrepreneurs indicated high responsiveness to this idea, with averages exceeding 4.

Thus, certain reasons have more influence on entrepreneurial behavior, such as the need for achievement, self-realization, independence, affiliation, competence, and power, than do other reasons, such as making money or being one's own boss, which traditionally have been regarded as widespread but actually are not sufficient to ensure entrepreneurship. The process of starting a business usually involves a series of obstacles that go beyond strict self-employment (Gatewood, Shaver and Gartner, 1995; Kreiser, Marino and Weaver, 2002).

## 5. Conclusions and Implications

This research obtains interesting findings and makes important contributions both for the management of small and medium-sized companies and for the decision-making policies of public administrative bodies. As the findings have evidenced, the motivation that encourages entrepreneurs to start up new business, their commitment with the idea of the new firm or the efforts they are willing to perform in order to start up the new business, along with their flair for the process, are key in the start up of the new ventures. In this regard, the results we have obtained reflect our efforts to address two objectives. First, with the methodology we used, we can identify the main reasons entrepreneurs to start their own businesses. Second, we analyze the influence of each reason on the entrepreneurial behaviors of entrepreneurs.

Regarding the first objective, the motivational factors we have identified are similar to those that emerge from traditional classifications, such as those published by Maslow (1943), McClelland (1961), Herzberg (1966) or Alderfer (1969). The classification by the latter author reveals the greatest degree of coincidence, which suggests certain logic: McClelland's theory is based on empirical studies of entrepreneurs. Therefore, we suggest that there may be motivational differences between entrepreneurs and the rest of the population (see also, e.g., Sexton and Bowman 1985; Begley and Boyd 1987; Carland and Carland 1991). Thus, our identified motivational factors largely coincide with those proposed in prior literature, though in our study, two needs traditionally associated with entrepreneurs appear less significant: independence and power. In the first case, we distinguish among personal autonomy, independence, professional autonomy; in the second, we recommend a distinction between personal and institutional power, as proposed by McClelland.

Moreover, we corroborate the influence of certain reasons, such as the need for achievement, self-realization, independence, affiliation, competence, and power, on entrepreneurial behavior. However, making money or being one's own boss does not appear sufficient motivations. In this context, Lee et al. (2011) questions the appropriateness of traditional approaches based on purely monetary incentives, such as the widely adopted programs that aim to stimulate economic development or business in depressed areas. Those responsible for these programs suggest that the environment should be changed; specifically, they advocate expanding the opportunities to make money, in the hope that this increased opportunity will invoke a strong response by potential entrepreneurs, who can benefit from the opportunities. However, like most assumptions, it applies only if certain conditions are met, including those that McClelland (1961) highlights for individuals, such as a minimum level of the need for achievement.

Therefore, the motivation content of entrepreneurs influences their decision to start a business. We cannot deny that financial support through grants or loans is necessary to support the process of establishing a company; a lack of initial capital is one of the main obstacles noted by entrepreneurs. However, in most cases, financial

support is insufficient, if it is not accompanied by adequate support for and training that encourages other motivations, beyond self-employment. Within this context, education plays a role of great importance in the development of entrepreneurial spirit among individuals (Burke, FitzRoy and Nolan, 2002). Recent efforts made by certain universities and academic institutions, which include courses on business start-up are not enough. What is necessary, though, is the inclusion of this issue as an important subject from the lowest levels of education.

Keeping this premises in mind, the new ventures are created not only by those who can do it –this is, by the people that are able to do it–, but also those who have the required motivation to do that. Hence, the different bodies and entities interested in supporting new types of firms –public entities, savings institutions, finance companies, etc.– should take into account this fact and consequently, should incorporate the pertinent mechanisms to measure the commitment of potential entrepreneurs with their new ideas. Especially with the goal of reducing the high rate of failure among these collective of firms and profiting the use of funds and helps oriented to finance the start-ups processes.

## 6. Limitations and Future Research

A limitation of the study is that entrepreneurs' perceptions may not reflect the 'true' reasons why the entrepreneurs start their own businesses. Results from our interviews with entrepreneurs from Spain and elsewhere suggest that this does not invalidate our research, for they are indeed likely to reflect reality. A second limitation is that our samples only include start-up entrepreneurs. Other people that intend to be entrepreneurs may have different views. A third limitation is our use of only descriptive statistic. Since our results are more descriptive than conclusive, the motivational factors and entrepreneurial profiles identified above should serve as a basic for further theoretical development and multivariate empirical research that may produce more convincing or conclusive results.

So, our findings prove the convenience of incorporating new explicative variables, which may include aspects regarding professional background or environmental characteristics. Besides, other measures can be established to address the impact of the entrepreneurs' reasons leading to start-up and performance of the company, such as the satisfaction with the new venture, the sales increment, the benefit increment or the company survival. Future research can also extend this study by tracking successful and unsuccessful entrepreneurs over a period of time and examining the validity of our findings. In addition, this research can extend to people that intend to be entrepreneurs.

In either case, this research provides a rationale for the inclusion of factors that determine the creation of a firm in order to define adequate support economic policies oriented to the development of values like entrepreneurial initiative, ability to assume risk, creativity or innovation.

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