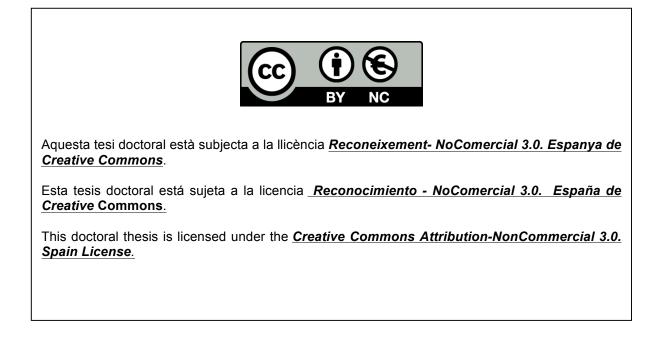


## The Role of Personal Values in the Entrepreneurial Process

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### UNIVERSITAT DE BARCELONA DOCTORAL THESIS



### THE ROLE OF PERSONAL VALUES IN THE ENTREPRENEURIAL PROCESS

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"Olvida lo que has dado, para recordar lo que has recibido" - Mariano Aguiló

Dedico este trabajo a las personas más importantes en mi vida. A mis padres, gracias a ellos soy quien soy. A mi esposa e hija, para ellas soy; para ellas busco ser mejor cada día. A mis hermanos, con ellos he crecido y de ellos he aprendido. A todos ustedes, con amor, admiración e infinito agradecimiento.

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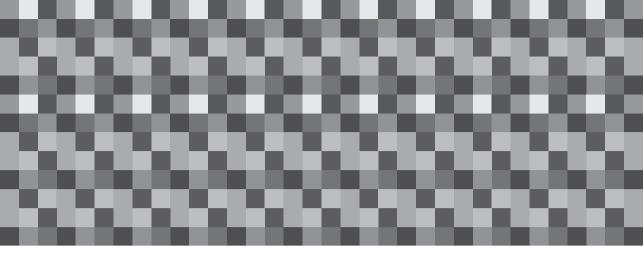
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# **Chapter 1**

Introduction

# 1.1. Introduction and statement of the problem

Entrepreneurship is a phenomenon that has continued to gain importance among researchers since the last decade. All the same, after more than 30 years of research the literature still presents difficulties for defining some terms as basic as entrepreneur and entrepreneurship (Gartner, 1988; Bygrave and Hoffer, 1991; Rosa and Bowes, 1993). Entrepreneurship cannot simply be considered as an action, instead it must be seen as a whole process involving different stages; and this process is not one of a merely economic nature but draws from the social context which shapes and forms entrepreneurial outcomes (Jack and Anderson, 2001). Thus, the process is performed by individuals, and the study of the individuals that perform these activities is as important as the study of the process itself. It would be almost impossible to understand the entrepreneurial process without taking look at the individuals who perform this activity.

In academic literature, different phenomena have been studied regarding the personal characteristics that define the entrepreneur; features such as skills, talent, and knowledge that influence the possible success or failure of new ventures (Brandstätter, 2011; Sirec and Mocnik, 2012; Ahmadkhani et al. 2013; Xie, 2014)

Values occupy a prominent place in scientific and public discourse at a number of levels (Meglino and Ravlin, 1998). They are "among the very few social psychological concepts that have been successfully employed across all social science disciplines" (Rokeach and Ball-Rokeach, 1989: 775). However, little research has been conducted in terms of the role that personal values play within the whole conception of entrepreneurship.

Liñan (2008) states that when the individual takes complex decisions involving the need to develop plans, values play a relevant role. The higher the priority given to a value, the more likely people will form action plans that can lead to its expression in behavior.

Individuals present marked behavioral differences in relation to their decisions to create and sustain entrepreneurial activity, and previous research has highlighted the importance of analyzing not only the social context of the entrepreneur but individual aspects as well; the nature of the entrepreneur is still diffuse and there is a well recognized lack of unequivocal research findings on this topic (Bouchikhi, 1993; Chell, 1985; Naffziger, 1995; Shaver and Scott, 1991). We find that the concept of entrepreneurship has been addressed from different perspectives; some authors conceive entrepreneurship as a role and set of behaviors (Gartner, 1988) or as sets of competencies related to knowledge (Bird, 1995) and at the same time, in other studies, it is mainly the cognitive aspects of complex models of the entrepreneurial decision that are analyzed (Bird, 1988; Krueger and Carsrud, 1993). According to this view, individual cognitive aspects play a key role at different stages of the entrepreneurial process. Whether entrepreneurship is aimed at deriving financial rewards and/ or some other form of value, the process remains basically the same: alertness leads to recognition and then exploitation of opportunities, followed by decisions concerning growth (Bygrave and Hofer, 1991; Venkataraman, 1997).

The role of values in decision making has been a considerable source of interest in the field of psychology (Bardi, Lee, Hofmann-Towfigh, and Soutar, 2009; Rohan, 2000; Schwartz and Boehnke, 2004) and crosscultural studies (e.g. Hofstede, 1980; Schwartz, 2004), but there has been insufficient research on how personal values, as opposed to cultural values, influence the decision making of entrepreneurs or potential entrepreneurs (Holland and Shepherd, 2013). In this sense, cultural-level theories are more appropriate for research questions examining the effect of culture on the structure of groups and societies (Bardi et al., 2008; Holland and Shepherd, 2013). However, the values that one holds influence the ways in which one defines situations, considers alternatives, and ultimately chooses a course of action (Holland and Shepherd, 2013).

Also, while current studies suggest that values affect operating practices, work is needed to better understand the linkages between values and levels of entrepreneurial activity (Morris and Schindehutte, 2005).

### **1.2. Research objectives**

In line with the background mentioned above, this work aims to explore different stages of the entrepreneurial process from the perspective of personal values as main predictors and guides of behavior. This work focuses on personal values for two main reasons: first, following the concept stated by Gartner (1988) about entrepreneurship being a role and a set of behaviors, and considering personal values as regulation agents for attitudes and thus for behavior. Second, personal values are desirable, trans-situational goals that vary in their importance as guiding principles in people's lives and behavior (Schwartz, 1992).

Thus the main objective of this research is to explore the role that personal values play as determinants of attitudes and behavior oriented to different stages of the entrepreneurial process, and learn how the influence of personal values in this process may affect the decisions that the entrepreneurs take within the organization as well as influencing the expected outcomes. To address this general objective the following specific objectives are proposed:

- Analyze the literature of personal values and specifically those researches that have studied the role of entrepreneurs' values on the entrepreneurial process.

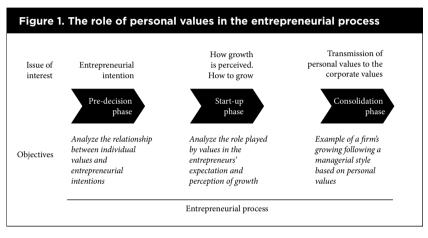
- Analyze the relationship between personal values, a positive attitude toward entrepreneurship, and entrepreneurial intentions.

- Identify how an entrepreneur's values can have a specific influence on the perception of growth and how these values have an impact on the process of growing of new ventures, specifically on the firm's way of growing.

- To show the case of a company where the entrepreneur's personal values have strongly influenced organizational culture and the process of growing.

In this sense, this work is focused on the role of personal values as

factors that predict or influence attitudes towards the intention to create a new venture, the decision making regarding the creation process, and the way the entrepreneurs conceive of their company and decide to make it grow – see Figure 1.



Source: Own Elaboration

### 1.3. Structure of the research

In Chapter 2, a review of the literature concerning theories on values is presented in order to narrow down the origin of the study; a set of definitions of values is presented to contextualize the concept and another literature review is presented to analyze the state of the art of the study of personal values related to entrepreneurship. Chapter 3 presents an empirical quantitative research study conducted among students at the University of Barcelona exploring the influence that personal values have on attitudes towards entrepreneurship and the link between them and entrepreneurial intention. Chapter 4 describes the relation that exists between personal values and the perception and expectation of growth of founders of new high-technology ventures: this chapter explores the role that personal values play in the way these founders conceive of their firms and what type of growing process their goals are aimed at. This research follows The Functional theory for analyzing entrepreneur's values. Chapter 5 presents an in-depth case study of one firm in particular of those mentioned in Chapter 4. This firm provides a clear example of how the personal values of the founder are transmitted to the organization and how these values govern the life of the company. This chapter highlights the role of personal values as the basis of the philosophy of the company and hence of the decision making and strategy designing processes. In this last case, personal values are the key factor for the subsistence and growth of the company. Finally Chapter 6 presents a general discussion and the conclusions of the research as well as the implications for theory and practice, limitations of the present study, and future lines of research.

This work is based on the following academic contributions:

### Journal Articles

- CAMPOS, A. AND HORMIGA, E. (2011). Entrepreneur's values and knowledge: How can they influence new technology-ventures' growth? International Journal of Industrial Engineering and Management, Vol. 2 (2), pp. 33-38.
- CAMPOS, A., HORMIGA, E. AND MATIZ-BULLA, F. (2012). Personal values and entrepreneurial career location: The case of high-skilled immigrants from a developing country. African Journal of Business Management, Vol. 6 (12), pp. 4543-4550.
- CAMPOS, A., HORMIGA, E. AND VALLS, J. (2012). *Influencia de los valores personales de la emprendedora en la cultura organizativa.* Economía Industrial, Vol. 383, pp. 133-141.

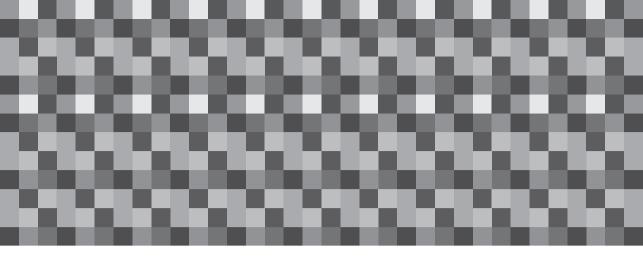
#### **Book chapters**

HORMIGA, E., CAMPOS, A. AND VALLS, J. (2011). "ADICIONA: Una Empresa con Valor" in Manual de Casos sobre Creación de Empresas en España. McGraw-Hill, Madrid.

- CAMPOS, A. AND HORMIGA, E. (2012). "State of the Art of Knowledge in Entrepreneurship: A ten-year literature review" in Entrepreneurial Process in a Changing Economy: Frontiers in European entrepreneurship research. Edward Elgar, Massachusetts, USA.
- CAMPOS A., HORMIGA, E. MORENO-LUZON, M. AND GREENE, P. (2013). "Entrepreneur's knowledge as key intangible asset for new ventures: Conceptualizations and taxonomy of indicators" in Shedding New Lights on Organizational Learning, Knowledge and Capabilities. Cambridge Scholar Publishing, Cambridge, UK.

### **Conference** papers

- CAMPOS, A. AND HORMIGA, E. (2010) State of the Art of Knowledge in Entrepreneurship: A ten-year literature review. XXIV Research in Entrepreneurship and Small Business: The entrepreneurial process in a changing economy. Maastricht, The Netherlands, 2010.
- CAMPOS A., AND HORMIGA, E. (2011). *Defining Knowledge in Entrepreneurship: Tendencies* in academic literature of last decade. XXI ACEDE: Creatividad el Futuro de la Empresa. Barcelona, España, September 2011.
- CAMPOS A. AND HORMIGA, E. (2011). *High-Skilled Immigrant Entrepreneurs' Career Development: Host or Home Country?*. xxv Research in Entrepreneurship and Small Business: Entrepreneurial business and society, Bodo, Norway, November 2011.
- CAMPOS A., HORMIGA, E. AND MORENO-LUZÓN, M. (2012) The State of the Art of Knowledge in Entrepreneurship: Last decade literature review. International Network of Business and Management Journals INBAM. Track, Small Business Economics. Valencia, Spain, March 2012.
- CAMPOS A., AND HORMIGA, E. (2012) *The Study of entrepreneurs' values and knowledge: Influence in growth expectations.* International Network of Business and Management Journals INBAM. Track, International Journal of Manpower. Valencia, Spain, March 2012.



# **Chapter 2**

**Theoretical Remarks** 

### 2.1. Conceptualization of individual values

Despite the popularity of personal values in the literature, there is a lack of consensus on the nature of values themselves. Indeed the word values is open to abuse and overuse by society and commonly people make it mean just what they want it to mean (Rohan, 2000).

Among other things, values have been considered as needs, personality types, motivations, goals, utilities, attitudes, interests or nonexistent mental entities (Meglino and Ravlin, 1998; Hitlin and Piliavin, 2004). Ling et al. (2007), for example, before analyzing the influence of CEO's values on performance, use an example to distinguish the difference between personality and values. They argue that an individual can demonstrate the personality characteristic of introversion (being somewhat withdrawn and shy in social contexts) but at the same time hold a value suggesting that being friendly and sociable is highly desirable (a value).

This is an example of how many authors have to make an effort to define very carefully what a value means so it is not confused with other concepts. In this respect, Hechter (1993) claims that the study of values contains four impediments: (a) Values are unobservable, (b) current theories give little guidance for understanding how values shape behavior, (c) behavioral explanations are unconvincing when the process that generates values is unknown, and (d) there are difficult problems with measuring values.

All of these aspects guarantee it will not be easy to develop research into personal values. A review of important remarks provided by the main authors in the field of personal values is presented next.

One of the first authors to define values was Kluckhohn (1951: 395), who argues that "a value is a conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable, which influences the selection from available modes, means, and ends of action." Some years later, Rokeach proposed a model of belief systems in which beliefs, attitudes and values are clearly differentiated (Rokeach, 1973). Thus, the value construct was restricted to that special class of enduring beliefs concerning modes of conduct and end states of existence that transcend specific objects and situations and are personally and socially preferable to an opposite mode of conduct or end state of existence. For the first time, the value domain was clearly differentiated from that of other beliefs and attitudes (Braithwaite and Law, 1985).

Specifically, Rokeach (1973: 5) defines values as "an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode or conduct or end-state of existence", Schwartz (1999: 24), likewise, defines values as "conceptions of the desirable that guide the way social actors [...] select actions and evaluate other people and events"; in this sense, values are criteria or goals ordered by importance that serve as guiding principles in life. Dolan et al. (2006: 28) argue that values "are strategic lessons, maintained and relatively stable over time [that] teach us that one way of acting is better than its opposite in order to achieve our desired outcome".

The main definitions of personal values provided in the literature are presented in Table 1.

Table 1. Main definitions of personal values in the literature

Author	Definition of personal values
Kluckhohn (1951: 395)	A conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable, which influences the selection from available modes, means, and ends of action.

Author	Definition of personal values
Lewin (1952: 41)	Values influence behavior but do not have the character of a goal (i.e., of a force field). For example, the individual does not try to "reach" the value of fairness, but fairness is "guiding " his behavior. It is probably correct to say that values determine which types of activity have a positive and which have a negative valence for an individual in a given situation. In other words, values are not force fields but they "induce " force fields. This means that values are constructs that have the same psychological dimension as power fields.
Heider (1958: 223)	We shall use the term value as meaning the property of an entity (x has values) or as meaning a class of entities (x is a value) with the connotation of being objectively positive in some way.
Rokeach (1973: 5)	An enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence.
Hambrick and Brandon (1988: 4)	Principles for ordering consequences or alternatives according to preferences.
Feather and Newton (1982:220)	Conceptions about the desirability and undesirability of means and ends.
Feather (1996: 222)	Beliefs about desirable or undesirable ways of behaving or about the desirability or otherwise of general goals.
Schwartz (1994: 21)	Desirable transsituational goals, varying in importance, that serve as guiding principles in the life of a person or other social entity.

Author	Definition of personal values
Schwartz (1994:88)	Guiding principles in people's lives for the selection of behaviors and the evaluation of individuals or events.
Schwartz (1999: 24)	Conceptions of the desirable that guide the way social actors (e.g., organizational leaders, policy-makers, individual persons) select actions, evaluate people and events, and explain their actions and evaluations.
Marini (2000: 2828)	Evaluative beliefs that synthesize affective and cognitive elements in order to orient people to the world in which they live.
Rohan (2000: 257)	The value system is a stable meaning-producing superordinate cognitive structure, which links value priorities to the cognitive structure of attitudes and beliefs.
Aalbers (2006: 11)	Prescriptive conviction about desirable behavior and goals, in particular in a longer-term perspective.
Dollan et al. (2006: 28)	Strategic lessons, maintained and relatively stable over time [that] teach us that one way of acting is better than its opposite in order to achieve our desired outcome.

Source: Own elaboration

Thus, after a review of the literature and recognizing that a review of the literature on personal values yields a large number of definitions, there are five features that are common to most of these definitions of values (Schwartz and Bilsky, 1990): values are (a) concepts or beliefs, (b) about desirable end states or behaviors, (c) that transcend specific situations, (d) guide selection or evaluation of behavior and events, and (e) are ordered by relative importance.

## 2.2. Theoretical approaches to personal values and their structure

Regarding the topic of our research, the literature on personal values reflects three general approaches (Roe and Ester, 1999). The first approach has tried to define a set of human values (Rokeach, 1973; Schwartz, 1992; Glew, 2009). Following this line, Rokeach (1973:5) defines a value system as "an enduring organization of beliefs concerning preferable modes of conduct or end-states of existence along a continuum of relative importance". Value systems composed of relative orderings of specific values, are considered to be relatively stable over time, although they are not permanent (Glew, 2009).

A second approach to the study of personal values analyzes the relationship between these and the workplace or organization. In this approach we can find, on the one hand, studies that analyze the congruence between the norms and values of an organization and the values of the persons (Chatman, 1989). And, on the other hand, researches that analyzes so-called work values. Work values refers to the preferences individuals have for behaviors and outcomes that ought to exist in work settings, not the importance individuals assign to different types of work, the work environment or working as an activity itself (Glew, 2009).

The third approach to studying values is an analysis of the similarities and differences of values between cultures (Hoftede, 1980). These studies try to identify a set of values that are shared by a group of individuals that belong to the same region or country. Efforts in this sense often emphasize patterns of values and preferences, such as shared orientations toward time, uncertainty, and goals, within national or ethnic boundaries (Glew, 2009).

The first approach will be analyzed in this theoretical chapter and the other two approaches will be addressed from the theoretical framework of the empirical work included in this thesis.

The structure of personal values refers to the conceptual organization of values on the basis of their similarities and differences. In this respect, one of the first authors who tried to classify values was Rokeach (1973). Rokeach (1973) argued that once learned, values are hierarchically ordered into a system that differentially weights individual values by their perceived importance and their function. He divided individual values into two sets: terminal and instrumental. Terminal values are existential objectives, which are end states of existence or ultimate modes of living what has been idealized as "the good life". Instrumental values are those values that represent the necessary way of acting to reach existential values. However, there is no theory that supports the value system structure as proposed, so some authors believe that the Rokeach Value Survey is essentially a list of unconnected value words (Rohan, 2000). Without a theory about the underlying value system structure, it is impossible to understand the consequences of high priorities being given to one value type, rather than to other value types (Rohan, 2000; Schwartz, 1996).

In seeking a structured order for the identification of personal values, Schwartz (1992) proposed the Theory of Basic Human Values in which values are classified in terms of the motivational goal they express. One of the key elements in this theory is the structure of dynamic relations that it explicates between value-types. Thus, actions in pursuit of any value have practical, psychological, and social consequences that may either conflict or be congruent with the pursuit of other values. He has contributed to the understanding of the structural relationship within the human value system identifying 10 value types that are organized in a circular structure: power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity, and security – see Table 2. The meaning of the ten values is presented in the following Table.

Value types and definitions	Representative Values
<b>Power</b> : Social Status and Prestige, Control or Dominance over People and Resources.	Social power: Control over others, dominance. Authority: The right to lead or command. Wealth: Material possessions, money.
Achievement: Personal Success Through Demonstrating Competence According to Social Standards.	Success: Achieving goals. Capability: Competence, effectiveness, efficiency. Ambition: Hard work, aspirations. Influence: Have an impact on people and events.
<b>Hedonism</b> : Pleasure and Sensuous Gratification for Oneself.	<i>Pleasure</i> : Gratification of desires. Enjoyment in life: Enjoyment of food, sex, leisure, and so on.
<b>Stimulation</b> : Excitement, Novelty, and Challenge in Life.	<i>Daringness:</i> Adventure-seeking, risk taking. <i>A varied life:</i> Filled with challenge, novelty, change. <i>An exciting life:</i> Stimulating experiences.
<b>Self-Direction</b> : Independent Thought and Action-Choosing, Creating, Exploring.	Creativity: Uniqueness, imagination. Freedom: Freedom of action and thought. Independence: Self-reliance, self- sufficiency. Curiosity: Interest in everything, exploration. Choose own goals: Select own purposes.

Table 2. Value Types, definitions and representative values

Value types and definitions	Representative Values
<b>Universalism</b> : Understanding, Appreciation, Tolerance, and Protection for the Welfare of all People and of Nature.	Broadminded: Tolerant of different ideas and beliefs. Wisdom: A mature understanding of life. Social justice: Correcting injustice, care for the weak. Equality: Equal opportunity for all. A world at peace: Free of war and conflict. A world of beauty: Beauty of nature and the arts. Unity with nature: Fitting into nature. Protecting the environment: Preserving nature.
<b>Benevolence</b> : Preservation and Enhancement of the Welfare of People With Whom One is in Frequent Personal Contact.	Helpful: Working for the welfare of others. Honesty: Genuineness, sincerity. Forgivingness: Willingness to pardon others. Loyalty: Faithful to my friends, group. Responsibility: Dependable, reliable.
<b>Tradition</b> : Respect, Commitment, and Acceptance of the Customs and Ideas That Traditional Culture or Religion Provide the Self with.	Humility: Modesty, self-effacement. Acceptance of my portion in life: Submission to life's circumstances. Devotion: Hold to religious faith and belief. Respect for tradition: Preservation of time-honored customs. Moderate: Avoiding extremes of feeling or action.
<b>Conformity</b> : Restraint of Actions, Inclinations, and Impulses Likely to Upset or Harm Others and Violate Social Expectations or Norms.	Politeness: Courtesy, good manners. Obedience: Dutiful, meet obligations. Self-discipline: Self-restraint, resistance to temptation. Honor parents and elders: Showing respect.

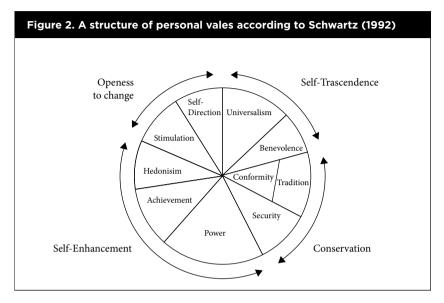
Value types and definitions	Representative Values
<b>Security</b> : Safety, Harmony, and Stability of Society, of Relationships, and of Self.	<i>Family security:</i> Safety for loved ones. <i>National security:</i> Protection of my nation from enemies. <i>Social order:</i> Stability of society. <i>Cleanliness:</i> Neatness, tidiness. <i>Reciprocation of favors:</i> Avoidance of indebtedness.

Source: Schwartz (1992, 1996)

Values were shown to be ordered in terms of their compatibilities and conflicts with each other and external criterion variables (see figure 2). For example, actions in pursuit of hedonistic values are likely to conflict with those in pursuit of traditional values and vice versa, while acting on self-direction values is likely to conflict with the maintenance of conformity values and vice versa. Yet, hedonistic values are compatible with self-direction values, and traditional values are compatible with self-transcendence values.

With respect to the more general structure, for example, values promoting the well-being of close others (benevolence) are located opposite values that promote personal enhancement and domination of others and the social and natural environment (power) (Fischer et al., 2011). This circular structure is represented in a two-dimensional space. Schwartz therefore argued that two dimensions underly the value structure (Schwartz and Boehnke, 2004).

With regard to compatibilities, for instance, power values include "social power", "authority" and "wealth"; benevolence values include "helping", "forgiving" and "loyal"; and self-direction values include "freedom", "curious" and "creativity" (Schwartz, 1992).

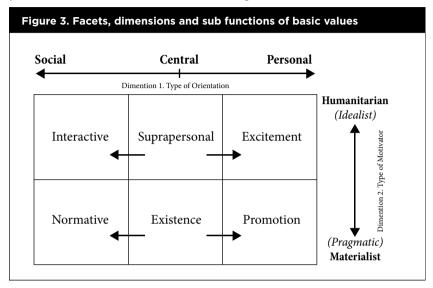


Source: Schwartz (1992: 45)

Schwartz's value theory (1992) is a contribution to understanding not only the components of the human value system but also to seeing how people differ in terms of the dynamic organization of value priorities for the 10 value types contained in his value system (Rohan, 2000) – see Figure 2.

Despite this first structure presented by Schwartz (1992), this same author argue some years later the separation between the 10 value types can be changed to make different theoretical distinctions (Schwartz and Boehnke, 2004). In that respect, Schwartz (2006) suggested more recently that two different contrasts organize the value space, namely a personal versus socially focused dimension, and a growth versus protection dimension.

Gouveia (1998, 2003) has used the Functional theory of values for developing a new structure and domain of human values. In this sense, Gouveia (1998, 2003; 2010) identified two functions of terminal values in the literature: (a) Values as a guide to human actions, and (b) Values as expressions of human needs. A combination of these two functions yields six subfunctions of values – see Figure 3.



Source: Gouveia et al. (2010: 205)

In the next paragraphs we shall explain the two functions in depth.

### Values as a guide for human actions

Humans have to survive in an environment where there is uncertainty, and it can often be hostile. Thus one of the main targets of individuals is to make personal decisions about one's personal survival (Fischer et al., 2011). In order to look for the best options for survival we find people who put an emphasis on the group or else on oneself as the principal unit of survival (Fischer et al., 2011; Gouvieia, 2003; Mueller and Wornhoff, 1990; Rokeach, 1973). People guided by social values are oriented towards society or interpersonal relationships. In contrast, people primarily guided by personal values are self-centered or intrapersonal in their focus. Thus this functional dimension refers to the type of orientation values applied to guiding human actions.

Based on this function Gouveia (2003) proposed three types of value: social, personal or central. An intermediate set of values in this functional dimension can be empirically identified that is neither completely or exclusively social nor personal (Gouveia, 2003; Gouveia, Andrade, et al., 2003; Mueller and Wornhoff, 1990; Schwartz and Sagiv, 1995). In this respect, Fischer et al. (2011) propose that this set of values is located between social and personal because it is not focused exclusively on either one of the two ends but is, rather, congruent with social and personal orientations. They argued that these values are both society-centered and self-centered.

### Values as expression of human needs

The second functional dimension is associated with the expression of needs and refers to the type of motivator that values fulfill (Fisher et al., 2011; Gouveia, 2003). On the one hand, there are the materialistic needs, which refers to those needs that have to be satisfied to ensure the survival of the individual, the immediate social group, and the species (basic biological and social needs such as food and control) (Fisher et al., 2011). On the other hand, there are needs that appear when the basic needs have been satisfied (Maslow, 1954; Wezel et al., 2003). These needs include the need for information, intellectual, and emotional stimulation, and the aspiration to gain positive self-esteem (Fisher et al., 2011; Baumeister, 2005).

Hence, the humanitarian or idealistic values are less oriented to concrete aims and have a universal orientation, empathizing with abstract principles and ideas. And materialistic values have an orientation toward specific goals, empathizing with a preoccupation for terms of survival, personal stability and security (Fisher et al., 2011).

Based on this function the values are classified as materialistic (pragmatic) or humanitarian (idealistic).

# 2.3. The role of individual values in the entrepreneurship field

The relationship between values, attitudes and behavior

Important theorists in a variety of fields have emphasized the importance of people's value priorities for understanding and predicting attitudinal and behavioral decisions (Rohan, 2000). As it was mention in the previous sub-chapter, the Functional theory of values analyzed the key function played by values as a guide to human behavior. Once developed, a system of values functions in a number of ways. It affects an individual's perceptual processes in that external stimuli are perceived in ways that are consistent with the value structure itself (Postman, Bruner and McGinnies, 1948; Williams, 1979). As mentioned earlier, values also serve a legitimizing function in that they can provide reasons to justify an individual's past behavior (Nord et al., 1988; Williams, 1979). More importantly, values directly affect behavior in that they encourage individuals to act in accordance with their values (see e.g., Rokeach, 1973; Williams, 1979). In this regard, values are one of a number of forces that affect behavior (Rokeach, 1973).

Values should, therefore, have their greatest impact in the absence of task and situational variables (e.g., incentives, limitations) that affect behavior in other ways. Also, as with other constructs that are central to an individual, values affect general modes of behavior across situations and over time (Epstein, 1979).

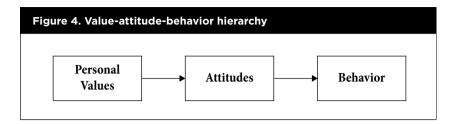
But how is this influence articulated? Personal values have long been considered important antecedents of attitudes and behaviors (Glew, 2009). However, sometimes there has been confusion between the two first concepts: values and attitudes. For this reason, it is important to determine the differences between these two concepts. Attitudes refers to favorable or unfavorable evaluations of an object, while values are focused on ideals (Eagly and Chaiken 1993). Hence attitudes are applied more to concrete social objects. Compared with attitudes, values are more central

to issues of personhood (Erickson 1995, Hitlin 2003, Smith 1991) and are more durable than attitudes (Hitlin and Piliavin, 2004).

However, it is widely believed that our attitudes are guided by what we consider important in life, that is our values (Boer and Fischer, 2013). Ajzen (1991, 2001) states that beliefs – values – would explain attitude, while attitude would explain intention. Different empirical studies from different fields have confirmed a hierarchical organization of the valueattitude-behavior chain (McCarty and Shrum, 1994; Stern et al., 1995; Karp, 1996; Lindberg and Johnson, 1997; Corraliza and Berenguer, 2000; Hauser et al., 2013).

Yet, as values are the "most abstract of social cognitions", they reflect the "most basic characteristic of adaptation" and thus serve as "prototypes from which attitude and behaviors are manufactured" (Homer and Kahley, 1988), a sequence known as the value-attitude-behavior hierarchy (Homer and Kahle, 1988; McCarty and Shrum, 1994; Shim and Eastlick, 1998; Vaske and Donnelly, 1999).

The value-attitude-behavior model – illustrated in Figure 4 – implies that "the influence should theoretically flow from abstract values to mid-range attitudes to specific behaviors" (Homer and Kahle, 1988). In this sense, many researchers have shown how this relationship applies in many different fields. For example, Jayawardhena, (2004) found that personal values (self-direction values, enjoyment values and self-achievement values) were significantly related to positive attitudes towards eshopping. Moreover, individual attitudes towards e-shopping were a direct predicator of e-shopping behavior and mediated the relationship between personal values and behavior. In a Danish school, Grunert and Juhl (1995) demonstrated that teachers' values were related to environmental attitudes, and the behavior of buying organic foods.



Source: Homer and Kahle (1988: 638)

On the other side, Olson (2000) found an empirical link between values and attitudes, mediated by what he terms goal-expressive attitudes that express an underlying motivational value structure. Other research links values to issues such as out-group prejudice (Biernat et al. 1996) or attitudes toward high achievers (Feather, 1995). The general consensus is that values hold a higher place in one's internal evaluative hierarchy than attitudes.

In the same line, Páez et al. (1991) argue that one of the main functions of attitudes is to express values. Thus, attitudes assume a function of expressing personal values when the attitude under evaluation allows the individual to express what he or she really thinks or feels. This function of attitude tries to project a certain social image.

### Focus of previous research on values in the field of entrepreneurship: Collectivism vs Individualism

In academic business research, the topic of personal values has usually been related to work. Some studies have tried to prove the relationship between personal values and, for example, the satisfaction feeling or motivation in the workplace. Following this line, recent research by Yilmaz (2011) found a relationship between personal values and employees' feelings of loneliness. This author found a relationship between the social companionship dimension and the tendency to feel lonely. This work reveals how values can influence the worker's positive or negative feelings towards the environment. Despite this, little research has been done in terms of the role played by the entrepreneurs' personal values in the whole process involved in the creation and survival of a new venture (Amit et al., 2001). In this sense, Holland and Shepherd (2013) make several important contributions to this stream of literature by exploring how an entrepreneur's personal values affect the way he or she chooses to persist in their decision to exploit an opportunity. Using the values theory of Schwartz (1992), these authors investigate individual differences in how values influence entrepreneurial persistence decisions, and they found that personal values help to explain variance in the emphasis that individuals place on different decision criteria. The authors capture entrepreneurs' real-time decisions and examine how individual and contextual differences relate to variations in decision making, finding that entrepreneurs' persistence in decision making can be attributed, in part, to differences in values held by entrepreneurs.

Moreover, Tomczyk et al., (2013) tested whether the performance of high growth firms is related to the values of the entrepreneur. These authors studied highly successful entrepreneurs and demonstrated the impact of other-caring values on firm performance.

In relation to values, one of the types of values most studied is the relationship between individualistic-collectivist values and the tendency to be an entrepreneur. Thus as mentioned before, some personal values respond to individual interests while others respond to collective interests (Ros and Grad, 1991). The latter, it is argued, "involve[s] the subordination of personal interests to the goals of the larger work group, an emphasis on sharing, cooperation, and group harmony, a concern with group welfare, and hostility toward out-group members" (Morris and Davis, 1994: 598). Thus, it is postulated that values that serve individual interests are the antithesis of those that serve the collective interest (Schwartz, 1992). Triandis et al. (2001) address the phenomenon of individualism and collectivism related to personality in various cultures. They report that people in collectivist cultures give priority to the goals set by the community and act in line with the group, while people in individualistic cultures tend to be independent and autonomous from their group – in such cultures therefore competence prevails over common wealth.

Table 3 provides a summary of the differences between individualistic and collectivist values (Moriano et al., 2001).

Point of difference Individualistic Collectivist Self content Individual differences Social categories Forms of Self-"I can do what I want" "I am not a burden on my fulfillment group" Basic unit of survival Individual Group (belief) Regulation of Personal attitudes and Norms of the in-group behavior cost-benefit analysis Personal objectives Personal > In-group In-group > Personal vs. In-group objectives Weak Difference between Strong in-group and outgroup In-group and out-Out-group more In-group more group homogeneity homogeneous homogeneous

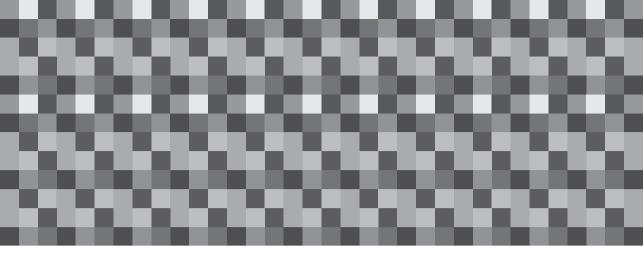
Table 3. Summary of differences between individualists andcollectivists

Source: Moriano et al. (2001: 233)

These two dimensions – individualism and collectivism – have previously been associated with entrepreneurial activities. At this point it is important to remember that people not only have their own value system but also perceptions of others' value systems, and groups (e.g., clubs, religious congregations, corporations, societies, cultures) can be described in terms of the values they endorse or promote (Rohan, 2000). So, the impact of collectivist/individualist values in entrepreneurial activity has been approached from the perspective of national/regional values, organizational values and individual values. With respect to national/regional values. Hofstede (1980: 25) refers to culture as "the collective programming of the mind which distinguishes the members of one human group from another and includes systems and values". Hayton et al. (2002: 33) argue how 'cultural values indicate the degree to which a society considers entrepreneurial behaviours, such as risk taking and independent thinking, to be desirable'. Different authors have analyzed the relationship between the four cultural indices of Hofstede (1980): (a) power distance, (b) uncertainty avoidance, (c) masculinity and (d) individualism, and the indices on entrepreneurship. In this sense, there is a certain agreement about an individualism culture stimulate entrepreneurship (Shane, 1992; Hofstede et al., 2004). This is based on the assumption that countries with this cultural profile have relatively more individuals with entrepreneurial values. However the results are not conclusive.

Regarding individualism, Shane (1992) investigates the relationship between culture and inventions, and finds that countries with high individualism are more inventive than others. However, Baum et al. (1993) argue that in a less individualistic society, organizations and institutions are not able to satisfy individual motivational needs in a common organizational environment. As a consequence, people with entrepreneurial needs are more inclined to start for themselves, as they cannot satisfy their needs within the existing structures. In this respect, Tiessen (1998) relates entrepreneurialism to the individualistic or collectivist orientation shown by national cultures. This author assumes that individualism and collectivism have to be considered as two distinct variables, rather than as one continuous variable. So he recognizes that collectivism facilitates entrepreneurship, but does not deny the critical role of individualism.

Regarding the values within the organization – organizational values – Morris et al. (1994) stress the importance of understanding the individualism/collectivism factor when analyzing the entrepreneurial behavior of firms. They examine the individualist/collectivist dimension and its impact on innovation rates in new startup businesses. Their findings indicate that both individualism and collectivism are important factors in understanding entrepreneurial behavior in the firm. Finally, with regard to individuals as a unit of analysis, different authors have identified individualism as a commonly held value among entrepreneurs (McGrath et al., 1992); and the popular view of entrepreneurs as highly independent loners, might lead one to expect that they score higher than career professionals in their individualism scores. Using Hofstede's indices, McGrath et al. (1992) compare entrepreneurs and nonentrepreneurs within eight countries, and find that entrepreneurs tend to score high individualism. However, in recent years, there has been a tendency to question this assumption and the notion of entrepreneurship as a purely individualistic practice (Drakopoulos and Karayiannis 2005).



# **Chapter 3**

# **Empirical issue I**

Personal values as predictors of attitudes towards entrepreneurship, and entrepreneurial intention

## 3.1. Introduction

Individuals present marked behavioral differences in relation to their decisions to create and sustain entrepreneurial activity, and while various explanations have been offered to account for this pattern of behavior, a growing body of literature considers intention to be one of the best predictors (Ajzen, 1991; Fishbein and Ajzen, 1975). Indeed, some studies claim that entrepreneurship is the archetype of planned behaviors (Bird, 1988; Katz and Gartner, 1988). By contrast, factors associated with specific situations, including employment status, access to information and entrepreneurial support programs, have been reported to be poor predictors of entrepreneurial activity (Krueger et al., 2000). Thus, on the basis of these claims, we should be able to explain and even predict entrepreneurial activity by analyzing factors that have a direct bearing on entrepreneurial intention.

In this regard, personal values have been shown to provide a powerful explanation of, and to have a marked influence on, human behavior (Homer and Kahle, 1988). The prevalent role played by values in all aspects of human life (Rokeach, 1973) has prompted empirical research in a number of social disciplines. Yet, despite the generally accepted importance of the role of individual values, scant empirical attention has been paid to their potential importance in the work setting. In the field of entrepreneurship, there are several important aspects concerning the entrepreneur's decision to create a company that could be better understood by exploring the role played by personal values in the process (Moriano et al., 2012; Liñan et al., 2011) and the significance of attitude as a mediator between values and intentions (Homer and Kahle, 1988).

Note that this approach is not saying that values are the only influences on attitudes, as there are several other variables that influence the extent to which particular objects or events are seen as attractive or repulsive, and these have received some attention in the literature (e.g., Eccles, 1985; Feather, 1982a). However, in the entrepreneurship field there is a lack of studies analyzing the role played by the values of current or potential entrepreneurs.

In this context, therefore, the main purpose of this paper is to enhance existing models of entrepreneurial intentions by incorporating a key motivational element that should shed light on the origin of positive attitudes toward entrepreneurialism and the intention to undertake an entrepreneurial activity. In this paper, we focus first on the role that personal values play as direct predictors of entrepreneurial intention and, second, on the role that personal values play as predictors of attitude, a key element in the prediction of entrepreneurial intention.

The sub-chapter that follows presents a review of previous studies that have focused on the relationship between personal values and entrepreneurship, and shows the theoretical source of the scales of entrepreneurial intention and attitudes toward this activity. In section 3 we explore the work conducted to date on the importance of personal values in the field of entrepreneurship and present a number of hypotheses about the influence that personal values might have on an individual's attitude to entrepreneurial intention. In section 4 we describe the methodology adopted in our research and outline the steps followed in the design of our sample and data collection. In section 5 we present the measures used and the results we obtained. Section 6 discusses these findings and section 7 presents our conclusions and identifies future lines of research.

## 3.2. Theoretical framework

Entrepreneurial attitudes and intentions

As mentioned in the previous chapter, attitude is considered the tendency to evaluate an entity with some degree of favorability or unfavorability (Eagly and Chaiken, 1998). Such evaluation is said to have both valence (or direction) and intensity, where the former is the positive or negative appraisal of the attitudinal object and the latter is the degree of this valence (Morales, 2001). Thus, for example, an attitude toward working in a team can be positive or negative, but it admits different degrees.

The Theory of Planned Behavior (Fishbein and Ajzen, 1975), henceforth TPB, has, since it was first proposed, been extended to determine the premises under which behavior can be predicted from the intention to adopt that behavior. In line with this theory, the entrepreneurial intention represents the effort that a person is prepared to make in order to undertake an entrepreneurial activity. A person's stated intention is considered as having been forged from three elements: (a) the subject's attitude toward the behavior; (b) subjective norms, such as the perception of other people's opinions of the proposed behavior; and (c) the subject's perception of behavioral control (Guerrero et al., 2008). Such an approach to intention has been adopted in various empirical studies (Audet, 2002, 2004; Kolvereid, 1996; Krueger et al., 2000; Tkachev and Kolvereid, 1999) and here, given our concern with examining the role that personal values play as predictors of attitudes (in this instance, toward entrepreneurial intention), we focus on the first, the subject's attitude.

In the field of entrepreneurship, an individual's attitude towards creating a new start-up business refers to their perception of how attractive or unattractive they view the proposition of becoming an entrepreneur is, based on the perceived advantages and disadvantages of assuming the role (Liñan and Chen, 2009; Ajzen 2001; Autio et al., 2001). In line with the TPB of Icek Ajzen (1991) and various subsequent studies (Krueger et al., 2000; Autio et al., 2001; Peterman and Kennedy, 2003; Veciana et al., 2005; Liñan and Chen, 2009) it is widely held that attitude toward entrepreneurship is a good predictor of entrepreneurial intention.

Based on this assumption, we propose the first of the hypotheses we wish to test:

H1. Attitude toward entrepreneurship is positively related to entrepreneurial intention

# *Personal values and entrepreneurial intentions: The mediating role of attitudes*

In Chapter 2, it was shown how, in seeking a structured order for the identification of personal values, Schwartz (1992) had presented the Theory of Basic Human Values classified in terms of the motivational goal they express. This classification of values establishes a structure of dynamic relations between value-types and it is one of the most used in the literature. Indeed it has been applied in more than 60 countries and in many different fields. In the management field, many of these studies have tried to prove the *value-attitude-behavior hierarchy* (Homer and Kahle, 1988; McCarty and Shrum, 1994; Shim and Eastlick, 1998; Vaske and Donnelly, 1999). These works have proved the relationship between personal values and a certain type of positive attitude toward a behavior, and the behavior itself, like e-shopping (Jayawardhena, 2004), or between environmental attitude and behavior (Gruner and Juhl, 1995; Kaiser et al., 1999).

Thus, values guide decision-making and motivate behavior that is congruent with them (e.g., Bardi and Schwartz, 2003; De Dreu and Nauta, 2009; Schwartz, 2005, 2009). Moreover, values would seem to capture an aspect of personality that is of particular importance to motivation (Roccas et al., 2002) while remaining highly stable over time (Bardi et al., 2011). In this sense, they are one of the key factors underpinning individual decision making. Thus, for example, while the pursuit of economic wealth might be a priority for some, security and stability might be more important for others – and both groups will act accordingly, performing those actions that lead to the result that is perceived as being more attractive. As Schwartz (2006) concludes, any opportunity for performing a specific activity will be more or less attractive to the individual in terms of the personal values that guide his/her life.

As mentioned before, in the entrepreneurship field, it has been extensively argued how important it is to study entrepreneurial intentions due to their capacity to predict entrepreneurial behavior (Douglas and Shepherd, 2002; Boyd and Vozikis, 1994; Bird and Jelinek, 1988). If the attitude toward entrepreneurship is a key determinant of individual intention to create a company, individual values will play a key role in the conformation of the attitude toward entrepreneurship. This can be deduced firstly from the definition itself of personal values, which refers to beliefs about the personal or social desirability of certain behaviors and modes of existence as relatively stable (Rokeach, 1973; Jager, 2000). For example, some people may attach great value to freedom of action and thought, while others value the acceptance of customs and ideas that society provides. At this point the question is how personal values can influence attitude towards entrepreneurship and entrepreneurial intentions? Are certain values related to having a positive evaluation of entrepreneurship as a professional career?

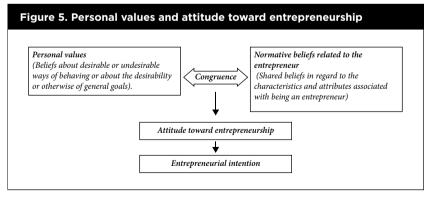
Thus attitudes are the results of the beliefs that persons have in respect of the attitudinal object (Morales, 2001). Individuals make an evaluation between what the beliefs (or stereotypes) about the object are, which beliefs are salient or important for the person, and the subjective desirability of each salient belief: that is, whether individuals think that this is desirable or not (Fishbein and Ajzen, 1975). In essence Stereotypes are schema or cognitive categories people use to process information (Avolio and Barrett, 1987; Weber and Crocker, 1983) and serve several important functions. For instance, gender stereotypes consist of shared beliefs with regard to the characteristics and attributes associated with each sex (Fiske and Taylor, 1991; Powell and Graves, 2003). In this case, stereotypes of the entrepreneur are common beliefs with regard to the characteristics and attributes associated with being an entrepreneur. For example, usually the entrepreneur is closely associated with levels of: achievement orientation, optimism, self-efficacy, internal locus of control, cognitive skills and tolerance for ambiguity above the ordinary (Shane and Venkataraman, 2000). Specifically in the following Table 4 we can see a list of different stereotypes associated with the entrepreneur based on two research projects applied in Spain (Pérez-Quintana, 2013; Moriano et al., 2001).

Table 4. Normative beliefs related to the characteristics of the en-
trepreneurs (Spain)

Pérez-Quintana (2013)	Moriano et al. (2001)
Creative	Adaptability
Innovative	Autonomy
Ambitious	High Risktaking proclivity
Self-confident	Self-confident
Ability to lead	Achievement
Optimistic	Innovative
Competitive	Internal locus of control
Active, energetic	Persistence
Hierarchical awareness	Power, influence
High Risktaking proclivity	Proactivity

Source: Pérez-Quintana (2013:108); Moriano et al. (2001: 231)

Thus specific beliefs held about activities and situations related to entrepreneurship will condition the attitude toward it. The congruence between the stereotypes (beliefs) that certain careers have will condition, and personal values will influence, the positive or negative attitudes of individuals toward this professional option, in this case, entrepreneurship – see Figure 5.



Source: Own elaboration

In this sense, the following paragraphs will analyze the relationship between the stereotypes of the entrepreneur, and the types of values that can influence the creation of a positive or negative attitude toward entrepreneurship. In order to understand this relationship the classifications of Schwartz and Boenhnke (2004) and Gouvieia et al. (2003) will be analyzed, to make a selection of those values that are most related to characteristics associated with the entrepreneur.

#### Open to change vs Conservation

In 1992, in his Structure of Values proposal, Schwartz made a distinction between values aggregated in "openness to change" and values included in "Conservation". Openness to change includes values like self-direction or stimulation while conservation includes values like security, conformity and tradition. This dimension arrays values in terms of the extent to which they motivate people to follow their own emotional and intellectual interests in unpredictable and uncertain directions (openness) versus preserving the status quo and the certainty it provides (conservation) (Schwartz and Boehnke, 2004).

If we relate this classification of values to the stereotypes associated with an entrepreneur we can see that Schumpeter (1934) saw the entrepreneur as an individual who combines existing resources in new ways to change creatively the established and often taken for granted order of things. Specifically, Schumpeter (1934:92) depicts the entrepreneur as more individualistic and egoistic than other persons since s/he relies "less than they do on tradition and connection and because his characteristic task – theoretically as well as historically – consists precisely in breaking up old and creating new". It is in Schumpeter's notion of entrepreneur-ship as an act of challenging and creatively destroying the old by giving voice to new ways of thinking and organizing that we see our analogy.

Moreover, the financial risk-taking that is often associated with entrepreneurship also adds a prescriptive edge to the stereotype that entrepreneurship is an option for individuals with a high propensity for taking risks (Thébaud, 2010; Hancock et al., 2013). Thus, risk tolerance has been one of the characteristics most often attributed to entrepreneurs (Hormiga and Bolívar-Cruz, 2013; Caliendo et al. 2009; Cramer et al. 2002; Ekelund et al. 2005; Van Praag and Cramer 2001). In fact, it is generally accepted that entrepreneurial activity is a career option that is more risky compared to paid employment (Applebaum and Katz 1986; Kihlstrom and Laffont 1979; Kanbur 1979; Sheshinski and Dreze 1976). Due to these assumptions we have made the following propositions:

*Hypothesis 2a: There is a positive and direct influence of the prevalence of personal values classified in the category "openness to change" on the individual attitude toward entrepreneurship* 

Hypothesis 2b: There is a negative and direct influence of the prevalence of personal values classified in the category "conservation" on the individual attitude toward entrepreneurship

#### Self-enhancement vs. Self transcendence

In the Structure of Values proposal by Schwartz (1992) the author distinguishes between "Self enhancement values" and "Self transcendence" values. Self enhancement includes the values Achievement and Power; and Self transcendence includes the values Universalism and Benevolence. This dimension arrays values in terms of the extent to which they motivate people to enhance their own personal interests even at the expense of others (self-enhancement) or else to transcend selfish concerns and promote the welfare of others, close and distant, and of nature (selftranscendence) (Schwartz and Boehnke, 2004).

Since the pioneering work of McClelland (1961), in which the need for achievement was associated with entrepreneurial behavior, the works that have studied this trait have been multiple. The need for achievement is characterized by the desire to succeed, to do tasks well (Hull et al., 1980), and by the encouragement, positive or negative, that arises in situations involving competition where there is a standard of excellence (Caird, 1990). The definition of the term is associated with the individual, determining this as "[ ... ] one who feels personally responsible for problem solving, establishing goals always achieved through their own efforts" (Batista Canino, 1996: 166). This characteristic has been extensively associated with the image of a successful entrepreneur (Begley and Boyd, 1987; Johnson, 1990; Herron and Robinson, 1993; Korunka et al., 2003).

The power or capacity for influence on others is another characteristic extensively associated with a successful entrepreneur and with individual entrepreneurial intention (Oosterbeek et al., 2010). Indeed, power refers to social status and prestige and control or dominance over people and resources (Bardi and Schwartz, 2003). The need for power drives an individual to find a position that allows considerable influence in decision making (Olson and Bosserman, 1984). The image of the entrepreneur is actually associated with a person that can influence others and can decide how to organize resources and assets. On this point, we proposed that:

*Hypothesis 3a: There is a positive and direct influence of the prevalence of personal values classified in the category "self-enhancement" on the individual attitude toward entrepreneurship* 

Here it is important to highlight that one of the main features of the theory of basic human values (Schwartz, 1992) is the structure proposed for relating the 10 values to each other. The closer any two values are in either direction around the circle, the more similar their underlying motivations; and the more distant any two values are from each other, the more antagonistic their underlying motivations. This means that the values behind self-enhancement are likely to conflict with those that express self-transcendence.

In the case of this categorization we can clearly observe groups of values completely oriented to what society commonly expects from an entrepreneur (openness to change); in the same way we find groups of values that include characteristics that are not related to what is expected form an entrepreneur (conservation). This can be observed in table 7 where we find characteristics such as creative or innovative.

However, in cases like that of the values included in the group selftranscendence we do not find this conflict that clearly. Hence, despite Schwartz (2004) who insists there is a clear contradiction between groups of values such as achievement and universalism, we do not find any entrepreneurial stereotype that implies a frontal conflict between the values included in the group self-transcendence.

On this point we find that in recent years a relatively new line of study has highlighted a new type of entrepreneur where personal values associated with the group self-transcendence would be closely related to the personality of the subject of study (the entrepreneur). The term "social entrepreneur" describes those individuals who establish enterprises primarily to meet social objectives rather than to generate personal financial profit (Dees, 1998; Mair and Martí, 2006; Wei-Skillern, Austin, Leonard, and Stevenson, 2007). Thus the underlying motivation for projects considered under the name of "social entrepreneurship" is to create social value, rather than just personal or shareholder wealth (e.g., Dacin et al.; Peredo and McLean, 2006; Wei-Skillern et al., 2007). This desire to expend effort based on a concern for helping or contributing to other people has been labeled "pro-social motivation" in previous research (Batson, 1987; Grant, 2007).

Recent research indicates that pro social and self-interested motivations do not necessarily involve mutually exclusive or opposing desires but, instead, are empirically independent and can even be positively related (Renko, 2013; De Dreu and Nauta, 2009). As we can observe – see Table 7 – despite the significant growth of literature related to social entrepreneurship in recent years, we believe that there are some aspects that have not been included in the entrepreneurs' stereotype, such as equal opportunity for all or working for the welfare of others, characteristics that represent values like universalism and benevolence. Based on this dichotomy we propose the following hypothesis in order to explore if there is really a relationship between self-transcendence values and a positive attitude toward entrepreneurship.

Hypothesis 3b: There is no direct influence of the prevalence of personal values classified in the category "self-transcendence" on the individual attitude toward entrepreneurship

#### Individualism vs. Collectivism

Although in a research the most common is to use a single theoretical classification to support the hypothesis, following Johannisson et al (2007) recommendations, this research uses another wider classification of values to complement the theoretical reflections on the previous hypotheses.

Thus, a classification of values that has been extensively explored and applied to topics related to entrepreneurship is the one that identifies individualism/personal and collectivism/social (Hofstede 1984, 2001; Gouvieia, 2010). One of the most prominent authors in terms of the individualism/collectivism classification of values applied to national culture is Hoftede (1994). The author states that individualism characterizes societies in which the link between individuals is low: people are expected to lead their lives themselves. In these societies there is a belief that decision-making is individual by nature, and occurs where there is a clear emotional independence from groups. Collectivism, the opposite extreme, characterizes societies in which people are members of strong and unified groups from birth. The groups continue to protect their members throughout their lifetimes in exchange for unquestioning loyalty.

At the individual level, collectivism is the orientation that "involves the subordination of personal interests to the goals of the larger work group, an emphasis on sharing, cooperation, and group harmony, a concern with group welfare, and hostility toward out-group members" (Morris and Davis, 1994: 598). Thus, it is postulated that values that serve individual interests are the antithesis of those that serve the collective interest (Schwartz, 1992). In Table 8, in the third chapter, we can see a summary of the differences between individualistic and collectivist values (Moriano et al., 2001).

If we structure the values of Schwartz (1992) into individualist and collectivist, following the categorization of Gouveia (2010), we find the following results. Power, achievement, hedonism, stimulation and self-direction are individualist. Security is central. Benevolence, universalism, tradition and conformity are collectivist.

Already in 1975, Lodge argued that individualistic cultures (such as the U.S.) tend to score high in entrepreneurship orientation since individuals in these cultures are more interested in exploring new ways of doing things and are more willing to take risks. In this respect, McGrath et al. (1992) identify individualism as a commonly held value among entrepreneurs. Moreover, Moriano et al. (2001) state that entrepreneurs are more prone to have individualistic values like, power, achievement, self-direction or stimulation, compared to employees. These individualistic values will be congruent with the belief that entrepreneurship is an individual and personal project. Based on this assumption:

Hypothesis 4a: There is a positive and direct influence of the prevalence of personal values classified in the category "individualism" on the individual attitude toward entrepreneurship

Traditionally the figure of the entrepreneur has been linked to the description of the knight errant and discoverer of new worlds; someone verging on the heroic; a patriarch with above-normal qualities who operates within a Darwinian system (Bruni, 2004). However, entrepreneurial teams are more common than academic literature has historically suggested (Lechler, 2001; Chowdhury, 2005). A change of focus in the last two decades has resulted in less attention being paid to the traits of the individual entrepreneur and more emphasis on the diversity of competencies demonstrated by entrepreneurial teams. (Watson et al., 1995; Frances and Sandberg, 2000; Lechler, 2001; Ensley et al., 2002; Higashide and Birley, 2002). This increase in interest can be attributed to growth in the number of collaborative start-up ventures. It reflects the fact that entrepreneurial activity is understood more every day as a group process and this means some collectivist values are not incongruent with beliefs about entrepreneurial activity, like loyalty or tolerance of different ideas and beliefs. This leaves the window open for testing whether collectivist values are related to a positive or negative attitude towards entrepreneurship.

Hypothesis 4b: There is no influence of the prevalence of personal values classified in the category "collectivism" on the individual attitude toward entrepreneurship

In the following Table 5, we classify the values analyzed in this study according to the different categories of values analyzed. These values are those more related to entrepreneurial belief. The first four values are those placed in the group of values most associated with the beliefs of the entrepreneur. By contrast, security is the value most contrary to the beliefs related to the entrepreneur. Finally, universalism and benevolence are those values related to the new paradigms of management such as collaborative management and are chosen in order to understand whether they are related or not to entrepreneurial attitudes.

Motivation type	Indicator description	Type of motive (Schwartz, 2004)	Type of orienta- tion (Gouvieia, 2003)
Self- direction	Independence in decision making. Establishing own goals and ways of behaving. Doing what is required to develop and make own ideas known	Openness to change	Individualism (Personal)
Power	Leadership and recog- nition from other team members.	Self- enhancement	Individualism (Personal)
Achievement (economic)	Accomplishment of economic goals and desire to improve cur- rent economic status	Self- enhancement	Individualism (Personal)
Stimulation	Inspired by challenges, satisfied by working to the limit of capabili- ties and working at all times with enthusiasm	Openness to change	Individualism (Personal)

#### Table 5. Classification of values and description

Motivation type	Indicator description	Type of motive (Schwartz, 2004)	Type of orienta- tion (Gouvieia, 2003)
Security	Undertaking daily activities in a secure atmosphere, free from any kind of threat.	Conservation	Central
Universalism	A concern for eco- nomic and political situation of the com- munity, a commitment to the common good	Self- transcendence	Collectivism (Social)
Benevolence	Maintaining good rela- tions with those one cares about, people with whom one is in frequent contact.	Self- transcendence	Collectivism (Social)

The role of personal values in the entrepreneurial process

Source: Based on Gouvieia (2003); Schwartz (1992); Ros and Grad (1991)

# 3.3. Methodology

#### Sample design and data collection

This study was conducted with primary data obtained from a self-developed questionnaire completed by students at the University of Barcelona (UB) between March and July 2011. The survey was administered to undergraduate and graduate students at the UB regardless of which program they were enrolled in and the academic year in which they were registered. A total of 1,344 questionnaires were collected; however, 126 responses had to be discarded owing to missing values. The final sample consisted of 1,218 responses, of which 65.02% were female respondents (792 cases) and 35% male (426 cases). Of all the responses included, 18.71% reported having a family member with their own business. Note also, that 11.9% of the individuals surveyed were not Spanish and the proportions of students who had had any type of work experience mounted to 64.03%. Undergraduates were predominant, with just 22.3% of the respondents being students at postgraduate level. In the final sample, 274 questionnaires (22.4%) were completed by either graduate or undergraduate students at the Faculty of Economics and Business, the rest were completed by students in fields traditionally unrelated to entrepreneurial activities, such as medicine, biology, literature, education, law, education, philosophy, art and design, engineering programs, etc. Table 6 summarizes the main characteristics of the sample.

	Total (N)	Percentage (%)
Sex (women)	792	65.02
Family business	228	18.71
Immigrant	145	11.90
Business Administration Students	271	22.24
Masters students	272	22.33
Previous work	780	64.03
Mean age (Standard Deviation)	24.8 (7.5)	

#### Table 6: Characteristics of the sample

#### Measures

Entrepreneurial intention; this variable was based on the entrepreneurial intention scale, which was primarily measured by subjective self-report of intention by students. Such measures are based on the scale of the Entrepreneurial Intention Questionnaire (EIQ) designed by Liñán and Chen (2009), adapted from Ajzen's TPB. It was provided with six points on a Likert-type scale ranging from 1 ('totally disagree') to 7 ('totally agree'). Examples of statements used to operationalize this variable are: "I am determined to create a firm" or "I have the firm intention to start a company". A total of six items were proposed.

Attitude toward entrepreneurship; a set of five 7-point Likert scale questions, ranging from 1 ('totally disagree') to 7 ('totally agree'), were asked to report the Attitude toward entrepreneurship. Other studies have already used this tool to measure it (Lee and Wong, 2003; Packham, 2010). The survey asked individuals to show their level of satisfaction in case they were entrepreneurs, or to say whether undertaking an entrepreneurship career would be attractive for them. A total of four items were proposed.

Individual values. For measuring individual values the statements are presented as scenarios and situations, written in the first person, to which the respondents are asked to answer on a seven-point Likert scale, where (1) is totally disagree and (7) is totally agree. The self-developed scales of personal values are based on the personal value types defined in Schwartz (1992) and in Ros and Grad (1991) (see Appendix I). The values selected due to their possible relationship with attitude toward entrepreneurship are: Self-direction, Power, Achievement, Stimulation, Security, Universalism and Benevolence. Beginning with each value definition, various scenarios related to their specific personal values were presented to the students. Given that a self-developed scale was used, reliability analyses were carefully computed to verify the properties of the personal values examined.

#### Considerations of the Analysis

Statistical analyses were conducted to test the reliability of the scales proposed using SPSS and EQS. We opted for a structural equation model (SEM) – using EQS – to test the feasibility of the model and the predictive power of personal values on attitudes, when attitudes act as predictors of entrepreneurial intention, and the way in which the predictive power of attitudes on entrepreneurial intention varies in this case. After testing the validity of the constructs and the reliability of the scales, a Structural Equation Model was built to test the hypotheses proposed. According to Schumacker and Lomax (2004), the advantages of using a structural equation model as opposed to regressions, are that SEM offers more flexible assumptions, mainly by (1) using confirmatory factor analysis to reduce measurement error and furnishing multiple indicators per latent variable; (2) satisfying the need to test models overall rather than coefficients individually; (3) being able to test models with multiple dependents; (4) mapping reflective and formative observed variables; (5) analyzing all paths, both measurement and structural, in one analysis; (6) being an umbrella concept for analyses such as mediation and moderation, and (7) being able to handle difficult data such as non-normal data, and incomplete data. In our case, the SEM allows us to analyze not only the relationship between personal values and the individual's attitudes toward entrepreneurship, but also at the same time the relationship between attitudes and entrepreneurial intention.

# 3.4. Measures and results

#### Reliability and validity of the scales

Before proceeding to test the hypotheses we verified the reliability of the scales designed to measure personal values, attitudes and intentions, by performing a factorial reduction and then testing the reliability of each resulting construct by running Cronbach's alpha test (SPSS version). Here, a total of 25 items were proposed in order to measure the seven values used. After performing the factorial reduction in SPSS, only 16 items were eventually taken into consideration to build the constructs in the final SEM model. Six distinct factors emerged from the factor analysis, accounting for 67.61 per cent of the total variance: Achievement, Selftranscendence, Stimulation, Power, Security and Self-direction. Items proposed for measuring universalism and benevolence were loaded on the same factor, so both values were considered as a single factor called Self-transcendence. This is the name that Schwartz (2004) gives to classify both these values. The remaining items loaded well on their hypothesized factors with only a few exceptions, which resulted in the removal of one or two items for each type of personal values. (Items removed were the same items that the reliability analysis indicated were weak, with a loading factor lower than 0.5). See Table 7 for a summary of the factor analysis with the remaining items for each variable and the loading for each component.

Items	Component 1	Component 2	Component 3	Component 4	Component 5	Component 6
ACH1	.895	0.036	.071	.086	.055	046
ACH2	.904	038	.031	.094	.029	.032
ACH3	.755	004	.065	.168	.047	.171
SELFTR1	.072	.509	.285	225	.087	039
SELFTR2	.007	.644	.136	.035	103	.105
SELFTR3	012	.863	.086	089	.084	.036
SELFTR4	003	.869	.119	-0.89	.058	.076
STIMUL1	.029	.042	.771	.112	190	.104
STIMUL2	.085	.031	.772	.154	093	.083
STIMUL3	.010	.151	.676	064	.048	.137
POW1	.181	143	.014	.842	.085	.094
POW2	.152	.004	.042	.867	.093	.028
SEC1	.008	.007	036	027	.857	.028
SEC2	.112	.019	096	.215	.788	011
SELFDIR1	.056	.102	.074	.044	015	.808
SELFDIR2	.067	.085	.168	.063	.033	.776

*Table 7. Factor analysis with individual values for final six factors with final items* 

Notes: Extraction method: principal component analysis; rotation method: promax with Kaiser normalisation. Rotation converged in six iterations The reliability of the scales, compared to that of scales used in previous studies, is sufficient to conduct the study. Here, reliability values ranged from .65 (Security) to .87 (Achievement), comparable to the coefficients reported by Schwartz et al. (2001) and Gorgievsky et al. (2011) – see Table 8.

	Current study	Gorgievsky et al. (2011) Cronbach's α	Schwartz et al. (2001) Cronbach's α
Power	0.79	0.66	0.50
Achievement	0.87	0.75	0.52
Stimulation	0.67	0.81	0.76
Self-direction	0.59	0.55	0.53
Self-transcendence (universalism-benevolence)	0.68	0.70 - 0.82	0.51 -0.67
Security	0.65	0.61	0.64

*Table 8. Comparison of reliability coefficients of personal value constructs (Cronbach's Alpha).* 

All our reliability coefficients present higher values than the scales reported in previous studies, with the exception of the coefficient of the personal value stimulation. However, this can still be considered an acceptable value if compared to the rest of the values obtained on these scales.

Then, an exploratory factor analysis is performed with the items proposed for measuring attitude toward entrepreneurship and entrepreneurial intention. After performing the factorial reduction in SPSS, two distinct factors emerged from the factor analysis, accounting for 80.276 per cent of the total variance. All items, except one, have a loading superior to 0.7 in the expected factor. Cronbach's alpha coefficients were .857 for attitude toward entrepreneurship and .938 for entrepreneurial intention.

Items	Component 1	Component 2
ATTITUD1	.346	.787
ATTITUD1	.382	.770
ATTITUD1	.314	.884
ATTITUD1	.380	.842
ENTINTEN1	.625	.438
ENTINTEN2	.727	.484
ENTINTEN3	.810	.425
ENTINTEN4	.884	.330
ENTINTEN5	.882	.307
ENTINTEN6	.874	.326

*Table 9. Factor analysis for attitude toward entrepreneurship and entrepreneurial intention* 

Notes: Extraction method: principal component analysis; rotation method: promax with Kaiser normalisation. Rotation converged in three iterations

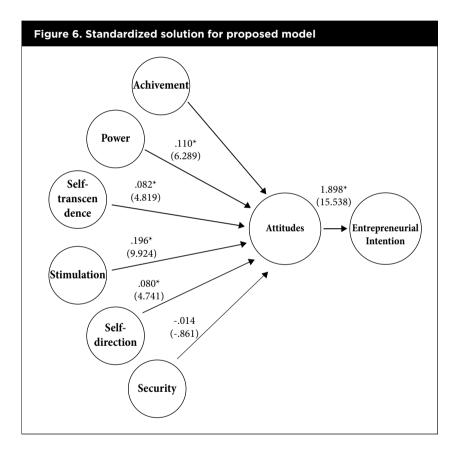
While analyzing the values, attitudes and intention scales using Cronbach's alpha and factor analysis leads to an internally consistent set of items with content and face validity, it is the extent to which the values correlate with other measures designed to measure the same thing that establishes its construct validity. An analysis of the correlations among items of the subscale and between the values and attitude and intention (Table 9) indicates the establishment of construct validity for the scales. The correlations in Table 10 show that the values subscales also correlate with each other and with entrepreneurial attitude and intention. Scale purification and item reduction, along with the results of the factor analysis, resulted in a 26 item scale with six sub-scale of values, which is content valid and reliable with construct validity. Appendix I summarizes these 26 items.

	1	2	3	4	5	6	7	8
Pearson Corr Significance N=	1 1331							
Pearson Corr Significance N=	.142(**) .000 1330	1 1335						
Pearson Corr Significance N=	.024 .377 1331	.252(**) .000 1335	1 1336					
Pearson Corr Significance N=	394(**) .000 1330	.312(**) .000 1335	034 .216 1335	1 1335				
Pearson Corr Significance N=	.327(**) .000 1331	.210(**) .000 1335	.284(**) .000 1336	.271(**) .000 1335	1 1336			
Pearson Corr Significance N=	.157(**) .000 1331	.345(**) .000 1335	.230(**) .000 1336	.246(**) .000 1335	.126(**) .000 1336	1 1344		
Pearson Corr Significance N=	442(**) .000 1328	.198(**) .000 1332	.182(**) .000 1333	.276(**) .000 1332	.144(**) .000 1333	.313(**) .000 1340	1 1340	
Pearson Corr Significance N=	.523(**) .000 1326	.162(**) .000 1329	.092(**) .001 1330	.309(**) .000 1329	.129(**) .000 1330	.272(**) .000 1336	.695(**) .000 1335	1 1336
	Significance N= Pearson Corr Significance N= Pearson Corr Significance N= Pearson Corr Significance N= Pearson Corr Significance N= Pearson Corr Significance N= Pearson Corr Significance N= Pearson Corr Significance N=	Pearson Corr Significance N=1Pearson Corr Significance N=.142(**) .000 .1330Pearson Corr Significance N=.024 .377 .331Pearson Corr Significance N=.394(**) .000 .1330Pearson Corr Significance N=.327(**) .000 .1331Pearson Corr Significance N=.327(**) .000 .1331Pearson Corr Significance N=.157(**) .000 .1331Pearson Corr Significance N=.152(**) .000 .1331Pearson Corr Significance N=.523(**) .000Pearson Corr Significance .000.523(**) .000	Pearson Corr Significance N=         1           Pearson Corr Significance N=         1331           Pearson Corr Significance N=         .142(**)         1           1330         1335           Pearson Corr Significance N=         .024         .252(**)           .000         .377         .000           N=         .377         .000           N=         .394(**)         .312(**)           Significance N=         .327(**)         .312(**)           .000         .330         1335           Pearson Corr Significance         .327(**)         .210(**)           .000         .000         .000           N=         .157(**)         .345(**)           Significance         .000         .000           N=         .157(**)         .345(**)           .000         .000         .000           N=         .1331         1335           Pearson Corr         .157(**)         .000           N=         .000         .000           N=         .1328         .1322           Pearson Corr         .523(**)         .162(**)           .000         .000         .000	Pearson Corr Significance N=         1 1331         -           Pearson Corr Significance N=         .142(**) .000         1 .330         1 .335         -           Pearson Corr Significance N=         .024         .252(**) .000         1 .335         1 .336           Pearson Corr Significance         .024         .252(**) .000         1 .335         1 .336           Pearson Corr Significance         .004         .000         .216           N=         .330         .312(**)         .034           .000         .000         .000         .216           N=         .327(**)         .210(**)         .284(**)           .000         .000         .000         .000           N=         .327(**)         .210(**)         .284(**)           .000         .000         .000         .000           N=         .327(**)         .210(**)         .284(**)           .000         .000         .000         .000         .000           N=         .157(**)         .345(**)         .230(**)           .000         .000         .000         .000         .000           N=         .157(**)         .345(**)         .182(**)           .000	Pearson Corr Significance N=         1 1331         Image: Constraint of the symbol significance         1 1000         Image: Constraint of the symbol significance         1 1000         Image: Constraint of the symbol significance         Image: Constraint of the symbol symbol significance         Image: Constraint of the symbol	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccc} Pearson Corr \\ Significance \\ N= & 1331 & 1 & 1 \\ Pearson Corr \\ Significance \\ N= & \\ .000 \\ 1330 & 1335 & \\ Pearson Corr \\ Significance \\ N= & \\ .000 \\ 1330 & 1335 & \\ .000 \\ 1330 & 1335 & \\ .000 \\ 1335 & 1336 & \\ Pearson Corr \\ N= & \\ .001 \\ .331 & 1335 & 1336 & \\ Pearson Corr \\ .000 \\ .331 & 1335 & 1336 & \\ Pearson Corr \\ .000 \\ .000 \\ .1335 & 1335 & 1335 & \\ Pearson Corr \\ .000 \\ .0$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

#### *Table 10. Correlation matrix*

#### Results

The structural equation model – SEM – used to test the hypotheses was built on EQS software and estimated with the robust maximum likelihood method. The fit indexes obtained in the measurement model estimation show that the variables measured converge towards the factors established in the confirmatory factor analysis (see Figure 6 and Table 9), as  $\chi_2$  Satorra-Bentler is 301.262 with 74 degrees of freedom and a p-value of .000.  $\chi_2$  /df is 4.07, which is lower than the acceptance limit of five (Hair et al., 1998). The RMSEA is .050, the CFI is .971 and the BB-NNFI is .963 (Byrne, 1994; Hu and Bentler, 1999). Taking the significance of the robust  $\chi_2$  statistic and observing the global indicators, we conclude that the global fit is acceptable (see Table 11).



SB x2	301.262	CFI	.971
DF	74	IFI	.972
NFI	.963	MFI	.910
NFI	.963	RMSEA	.50

Table 11. Robust independence and fit indexes for the proposed model

Table 12. Construct equation with loadings

Equation	R2
Attitudes=.486* Achievement + .166* Power + .123* Self- transcendence + .296* Stimulation + .121* Self-direction021 Security + .786 D7	.382
<b>Entrepreneurial intention</b> = .830* <i>Attitudes</i> + .558 D8	.689

#### Discussion of the results

In this work we argue that personal values play an important role at different stages of the entrepreneurial process. Particularly in this chapter the role of personal values is measured as a predictor of individual attitudes towards entrepreneurial intention – indeed, the first hypothesis stated in this chapter is that personal attitudes are good predictors of entrepreneurial intentions. In line with previous studies (including Krueger et al., 2000; Autio et al., 2001; Peterman and Kennedy, 2003; Veciana et al., 2005; Liñan and Chen, 2009), we do find personal attitudes to be good predictors of intention, but it should be borne in mind that for the purposes of this article the variable *personal attitudes* has been isolated from the TPB model, in which it is typically found to interact with the variables of perceived behavioral control and subjective norms.

As stated in previous sections of this chapter, in the field of entrepreneurship, an *individual's attitude* towards creating a new start-up business refers to their perception of how attractive or unattractive they view the proposition of becoming an entrepreneur, based on the perceived advantages and disadvantages of assuming the role (Liñan and Chen, 2009; Ajzen 2001; Autio et al., 2001). In line with Icek Ajzen's (1991) TPB and various subsequent studies (Krueger et al., 2000; Autio et al., 2001; Peterman and Kennedy, 2003; Veciana et al., 2005; Liñan and Chen, 2009) it is widely held that attitude toward entrepreneurship is a good predictor of entrepreneurial intention. In this model the variable *attitudes* explains nearly 70% of the variable *entrepreneurial intention* (R2= .689) with loading of  $\beta$ =.830 in the equation all significant at <.005 level. Yet, on this basis, hypothesis 1 is not rejected (see Table 12).

Hypothesis 2a proposes the positive relation between personal values classified in the category "openness to change" and the individual attitude towards entrepreneurships. Among the values included in the category "openness to change" we find values associated with group stimulation (like challenges, enthusiasm, explore limits of capabilities, etc) and values of self-direction (independence, establishing own goals, own ideas, etc). In this line results prove a positive significant impact of these personal values on the attitudes toward entrepreneurship. Personal value stimulation presents a loading of  $\beta$ =.269 in the model and personal value self-direction presents a loading of  $\beta$ =.121, both significant at the <.005 level, so hypothesis 2a is not rejected either.

Hypothesis 2b mentions that the prevalence of personal values related to the category "conservation" have a negative effect on the attitudes towards entrepreneurship. In this category we find all the values related to security such as being aware of any threat, performing activities in secure atmospheres, etc. Despite the fact that results throw a negative effect on this relationship, the result is not significant so it is not possible to state a real conclusion regarding hypothesis 2b. Even though, many studies in the field conclude that people with high tendencies towards risk have a significantly higher chances to become an entrepreneur (Van Praag and Cramer, 2001; Cramer et al., 2002; Caliendo et al., 2009; Masclet et al. 2009; Ahn, 2010). However, some authors have contended that entrepreneurs do not really think about risks in the statistical terms implied by many of the previous studies presented (Shaver and Scott, 1991); indeed, it has been suggested that they do not actually perceive themselves to be doing something risky (Corman et al. 1988; Palich and Bagby 1995; Simon et al. 2000). Xu and Ruef (2004) show that nascent entrepreneurs are more risk-averse than non-entrepreneurs. To reconcile the financial risk aversion of entrepreneurs with the high risk of financial loss among startups, they suggest that many of the motivations that individuals have for founding business ventures are non-pecuniary in nature. This study shows that there is not a significant relationship between considering "conservation" as important value in life and a positive attitude toward entrepreneurship.

Hypothesis 3a establishes the existence of a positive relation between values associated with the category of self-enhancement and the attitudes towards entrepreneurship. Self enhancement includes values such as achievement and power, understood as values that tend to preserve the personal interest over the common wealth. The need for achievement is characterized by the desire to succeed, to do tasks well (Hull et al., 1980), and by the encouragement, positive or negative, that arises in situations involving competition with a standard of excellence (Caird, 1990). The power or capacity of influence on others is another characteristic extensively associated with a successful entrepreneur and with individual entrepreneurial intention (Oosterbeek et al., 2010). Indeed, power refers to social status and prestige and control or dominance over people and resources (Bardi and Schwartz, 2003). The results of this model highlight the positive significant relationship between these values and the attitudes toward entrepreneurship; in fact, the value achievement is the personal value that has a higher positive load in the model to predict the attitude towards entrepreneurship; personal value *achievement* shows a loading of  $\beta$ =.486 while personal value *power* presents a loading of  $\beta$ =.166, both significant at the <.005 level; hypothesis 3a is not rejected.

Hypothesis 3b establishes that there is no direct influence of the prevalence of personal values classified in the category "self-transcendence" on the individual attitude toward entrepreneurship. As explained in previous sections there is not a stereotype of entrepreneur identified that contradicts the presence of those personal values included in the category of self-transcendence (universalism, benevolence). Actually, studies in different topics related to entrepreneurship such as gender entrepreneurship (Peris-Ortiz et al, 2011) or social entrepreneurship (Bosch, 2013) indicate that values associated with "self-transcendence" are present in this particular type of entrepreneur. This might explain the results in the model that present a positive relationship between the values universalism and benevolence, and the attitude towards entrepreneurship. The variable *self-transcendence* presents a loading of  $\beta$ =.123 significant at the <.005 level, which is contrary to the statement in the hypothesis there exists a direct positive influence between values oriented to self-transcendence and the attitudes; so hypothesis 3b is rejected.

Hypotheses 4a and 4b explore the effects of personal values on the attitudes towards entrepreneurship from the perspective of classifying groups of values into individualist and collectivist.

Hypothesis 4a proposes the direct positive effect of the values associated with individualism on the attitudes towards entrepreneurship. The values in the model included in this classification are power ( $\beta$ =.166), achievement ( $\beta$ =.486), stimulation ( $\beta$ =.296) and self-direction ( $\beta$ =.121) and all of them present a positive direct effect on the attitudes towards entrepreneurial intention (significant at the <.005 level); hence hypothesis 4a is not rejected.

Hypothesis 4b states that there is no direct effect of the personal values oriented to collectivism on the attitudes towards entrepreneurial intention. Following the categorization proposed by Schwartz (1992), the values in this model that belong to the group of collectivism are those related to self-transcendence (universalism and benevolence). The results show that there is in fact a direct (and positive) effect of these values on the attitudes towards entrepreneurial intentions (loading of  $\beta$ =.123 significant at the <.005 level), so hypothesis 4b is rejected.

Another important outcome from this study is the indication that personal values not only act as good, direct predictors of attitudes toward entrepreneurial intention, accounting for more than 38% (R2=.382) of the variance of personal attitudes, but they also serve to increase the predictive power of personal attitudes toward entrepreneurial intention. Thus, if we combine personal values as a predictor of personal attitudes together with personal attitudes as a predictor of entrepreneurial intention in an SEM, the regression accounts for almost 69% (R2 = .689) of the variance of the entrepreneurial intention variable.

## 3.5. Conclusions

The role of personal values in predicting human behavior is of great importance and the links between personal values and entrepreneurship have been revealed to be strong. Furthermore, intentions have been shown to be the best predictors of behavior (Ajzen, 1991; Fishbein and Ajzen, 1975) and so the design of intention-based models is more than justified. Liñan and Chen (2009) argue that entrepreneurial intention models, however, need to be improved and one of the ways of achieving this is by seeking to determine what underpins existing models. This paper has therefore explored the role that personal values play as the source of an individual's attitude toward entrepreneurship. We have analyzed an adaptation of the model proposed by Liñan and Chen (2009), which was based on the TPB, and have sought to understand what lies behind one of the best predictors of entrepreneurial intention – namely, personal attitudes. We have demonstrated that certain personal values not only function as good, direct predictors of entrepreneurial intentions, but also help us understand where such attitudes come from and allow us to use these attitudes as an even better predictor of entrepreneurial intent (see Table 12).

First we analyzed the relationship that exists between some personal values and the attitudes towards entrepreneurial intention, comparing

those values classified into the group called openness to change with those values included in the group conservation. These two groups of values seem to be antagonistic by definition and due to the most traditional stereotypes it is logical to think that values like self-direction and stimulation are positively related to the attitudes towards the entrepreneurship, while the values related to security would be negatively related. We found that personal values oriented to openness to change are positively related to the attitudes towards creating a business; however it is not possible to draw a conclusion about these values in relation to conservation. So, in terms of what the individual seeks for him/herself we conclude that those people with values that are pro change tend to be more likely to create new businesses.

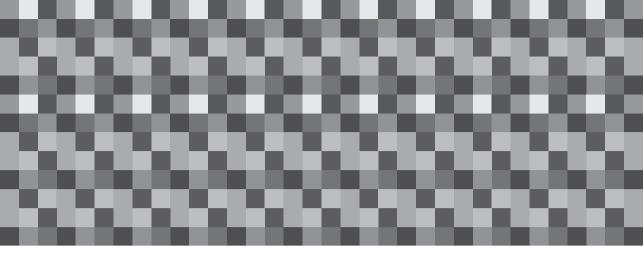
Moreover, it would be easy to think that individuals who care for the community in the first place will be less likely to create new businesses. However the results show that both individuals who care for community and individuals who care for self-transcendence hold values positively related to the attitudes towards entrepreneurship; which is clearly exemplified by the social entrepreneurs.

Finally individualist values are positively related to the attitudes towards creating a business, but in this work it is also concluded that personal values oriented to collectivism are not in conflict with a positive attitude toward entrepreneurship. This might be explained by the fact that, in the last years, entrepreneurship has been more related with an activity that promotes regional and communal development. This paper states that people who value the benefit of the community above their own have also a tendency to consider entrepreneurship as an attractive career choice.

Having examined one component of the TPB, the next step logically is to explore what underpins the other two components in the TPB model. Do other cognitive characteristics underpin perceived behavioral control? Can knowledge function as a predictor of perceived behavioral control? Do any other personal values, such as tradition or benevolence, influence the subjective norms of the TPB? Much research awaits if we are to find answers to these questions in a bid to understand fully the origin of entrepreneurial intentions and motivations. However, the subject is clearly of pressing interest and a good start has been made in the literature.

Some other future lines of research arise from these work such as the possible role of personal values in the decision to create businesses in one specific sector or another.

As a limitation of this study, it is necessary to state that the perception of students about being entrepreneur has not been analyzed. It is necessary to take into account the fact that students know some entrepreneur or not and consider this as a possible influence on their perception of being entrepreneur.



# **Chapter 4**

# **Empirical issue II**

The entrepreneur's values and the growth expectations of new ventures

# 4.1. Introduction

In this chapter, personal values are analyzed as factors that play an important role when the founders of new high-technology ventures design a strategy of growth for the company, according to what they consider important in life.

This work analyzes on the one hand, how values interfere when the founder sets expectations of growth in technology-based new ventures and on the other hand this work explores the role of values in the level of satisfaction of the entrepreneurs regarding the actual performance of their companies.

To conduct this analysis, it is necessary first to explore a theory that might be helpful for explaining the logic and the importance of the study. In order to analyze the relation between entrepreneurs' personal values and the expectations of growth and levels of satisfaction within a new venture, it is necessary to take a quick look at the congruence theory developed by Nightingale and Toulouse (1977).

Empirical studies have found that during the startup phase of new firms, entrepreneurs make recruitment decisions based mainly on mutually compelling interests among team members or their common aspirations to start a venture (Chandler and Hanks, 1998; Kamm and Nurick, 1993). Rather than just having a clear business vision as a common ground, entrepreneurs and their team members are being drawn to each other based on similar beliefs, interests, and personal chemistry (Bird, 1988).

As firms move to the growth phase, business vision and strategic goals become more well-defined and stable (Churchill and Lewis, 1983) but common values, interests and beliefs remain. In this sense, it is common for those entrepreneurs who share common values, to also share the perception of success and good performance of the company, hence the levels of satisfaction with the results of the company will be shared too regardless the financial situation. In chapter 2 personal values have been extensively defined and one of these conceptions is proposed by Rokeach (1973:5), who defines a value system as "an enduring organization of beliefs concerning preferable modes of conduct or end-states of existence along a continuum of relative importance". In this chapter we analyze how these desires for endstates (personal values) shared within technology-based new firms, work.

In the same chapter 2 the classification of personal values according to the role they play in human lives developed by Gouvieia et al. (2010) was presented. The Functional Theory of values recognizes the existence of two functional dimensions of personal values, giving place to two principal lines in the values structure. The horizontal axis belongs to the function of values that guide human actions, represented by the dimension type of orientation (personal or social), while the vertical axis represents the role of values as a guide to human needs, represented by the dimension type of motivation (material or humanistic values).

Congruence theory and Functional theory of values will set the frame for the analysis of the cases in this work. Under these circumstances, the objective of this research is to identify how entrepreneurs' values lead motivations to define the process of growing new technology-ventures.

Following this introduction, the next section presents the theoretical framework and the propositions. The first theoretical approach reflects on the importance of the topic of knowledge in the field of entrepreneurship and especially in the context of new technology ventures. This reflexion is followed by a theoretical approach to the role of personal values in the life and beliefs of an entrepreneur. The methodology of the empirical study is described next. The main results obtained from the case study analysis are then presented. The study concludes with a summary of the main findings, implications and limitations of this work, and ideas for future research topics.

# 4.2. Theoretical framework

Due to the important role of entrepreneurs' knowledge during the first years of life of new high-technology ventures, and the importance of this intangible asset in the selected cases, a literature review of this work will start precisely by approaching the topic of knowledge.

#### Knowledge in the context of new high-technology ventures

Firms are considered by a great number of researchers, as sets of resources systematically exploited and inter-related for producing and trading goods or services. For more than two decades now, scholars have explored the phenomena of firms and organizations basing their researches on the analysis of resources (Wernerfelt, 1984; Grant, 1991; Conner and Prahalad, 1996; Barney, 2001).

From the wide variety of resources and capabilities that give birth to a firm, knowledge is undoubtedly one of the most explored assets in academic literature. In the last few years, knowledge has been strongly related to the study of business creation and performance in several ways, and nowadays there exist as many academic papers on this issue, as on topics relating human beings and entrepreneurship.

Knowledge related topics in entrepreneurship have been studied at different levels; the entrepreneur's knowledge at the individual level (Dimov and Shepherd, 2005; Arthurs and Busenitz, 2006; Parker, 2006), knowledge at the level of a group of entrepreneurs (Moreno-Luzon and Begoña, 2008; West, 2007; Friar and Mayer, 2003; Watson et al., 2003), knowledge within the organization – at organization level (Deeds et al. 2000; Junkunc, 2007; Van Geenhuizen, 2008; Palacios et al. 2009; Sharder and Siegel, 2007; Corbett et al. 2007; Collinson, 2000) and at the inter-organization level, referring to the knowledge flowing and being constructed amongst groups of organizations (O'Gorman and Kautonen, 2004; Schildt et al., 2005; Biggeiro, 2006). Particularly, the study of the entrepreneur's knowledge – at the individual level – is the dominant topic in academic literature of the field during the last decade. Individual level as the name implies, will refer to the creation or exploitation of all kinds of knowledge or sources of knowledge performed by an individual.

Undoubtedly, the entrepreneur's knowledge has been a reference topic for researchers when measuring variables related to the performance and growth of nascent business. Most of the times factors of success and growth of new businesses have been strongly related to the possession, acquisition, development and implementation of entrepreneur's knowledge indicators such as skills, information, foreign language mastery and the most common knowledge indicators, education and experience (Lerner and Almor, 2002; Kundu and Katz, 2003; Williams and Chaston, 2004; Van Gelderen and Bosma, 2005; Poon et al., 2006; Dutta and Thornhill, 2008; West and Noel; 2009) As mentioned, knowledge and knowledge indicators are topics closely related to different phases of the entrepreneurial process and there are researches of all kinds that have been developed during the last years on this subject; as a result, a systematic review of works consulted during the development of this thesis will be presented, with a taxonomy of the articles relating knowledge to entrepreneurship (see Apendix III).

On the other hand, New technology-based firms (NTBFs) play a key role in the development and competitiveness of regions (Audretsch, 1995; Colombo and Grilli, 2010). This reason has led scholars to be interested in studying the main factors behind the growth and success of this type of companies; in fact one of the drivers of growth most studied in academic literature is the role of the entrepreneur. Although growth is generally agreed to be a good indicator of success and one of the aims of all the firms, not all new ventures choose to grow (Edelman et al., 2010; Wiklund and Shepherd, 2003)

In this sector, companies are created by a particular type of entrepreneur, usually with very high levels of technical knowledge and skills and as stated previously with common perceptions of several issues regarding the firm. Sometimes it is even scholars and researchers who create spin-off companies (Prodan and Drnovsek, 2010). In this line, Oakey (2003) argued that technical entrepreneurs need a correct combination of technical and managerial skills in order to be able to exploit such expertise. When the company starts growing it is crucial that the founder has support in finance, marketing and personnel areas (Oakey, 2003).

It has been well discussed that knowledge plays a critical role in business creation, life and survival in the market; actually there are certain sectors where specialized knowledge determines the length and breadth of the life cycle of a new venture. Technology-based businesses require by their very nature greater and more specialized amounts of knowledge to be created and to be managed. In fact, there has been a debate in academic literature about the real need for technological entrepreneurs to acquire business management skills or not and if so, to what extent.

In this sense, Oakey (2003) argues that it is not the best choice for scientist entrepreneurs with strong technical expertise who have succeed in the market so far, to refuse to acquire management training in order to grow the business. This author considers it important for entrepreneurs either to acquire such knowledge or even better, to hire or associate with someone who holds specialized business management skills, especially if financial assistance becomes an unavoidable need.

In the high-technology sector, companies are mostly created by a particular type of entrepreneur, usually with high levels of technical knowledge and skills. Sometimes it is even scholars and researchers who create spin-off companies (Prodan and Drnovsek, 2010). Oakey (2003) argued that technical entrepreneurs need a correct combination of technical and managerial skills in order to be able to exploit such expertise.

But, is it managerial knowledge that can really make the difference between the success and non-success of technological entrepreneurs? In order to answer this question it is important to consider what lies behind it, and if the entrepreneur's desire to make his business grow and the ability to do it rely only on the amount and specialization of technical and/or managerial knowledge that the entrepreneur possess.

#### Entrepreneurs' values and the growth of new technology-ventures

In addition to the entrepreneur's knowledge we consider that values are relevant indirect determinants of entrepreneurial activity in technological industries; but if we talk about the perception of success and levels of satisfaction with the performance of the firm, the effect of personal values is eminently direct. Usually, entrepreneurs in this sector possess high-technical training; in many cases they come from university environments and have been researchers for many years.

In the case of Spain, many research centers and universities provide funding to researchers in order to turn the patents and innovations they are working with into real business projects. However, it is not unusual for these researchers never to have thought about funding a company themselves, only then they find this option may be the only way to continue developing their professional career. In this sense, Elizur and Sagie (1999) highlighted the importance of compatibility between life and work values.

There has been substantial investigation related to why individuals create a business (Cassar, 2007). The motive that drives founders to develop business projects can either mean added value for the firm or it can have a negative effect. Various authors have studied the influence of motivations on the subsequent success of the firm and on organisational processes (Gatewood et al., 1995; Van Praag, 2003; Van Praag and Cramer, 2001; Peña, 2002; Collins-Dodd et al., 2004). Most of these authors draw the conclusion that the fact the owner is driven by intrinsic motivation – putting a personal idea into practice –, or by the need to be his/her own boss is an asset for the firm, which will have greater chances of surviving and obtaining future utilities than if he/she is driven by the impossibility of finding a job.

In previous chapters the influence of personal values on the intention to create a business has been proved, and now it is necessary to explore how these personal values guide the founders' expectations of growth in the company and how this influence works.

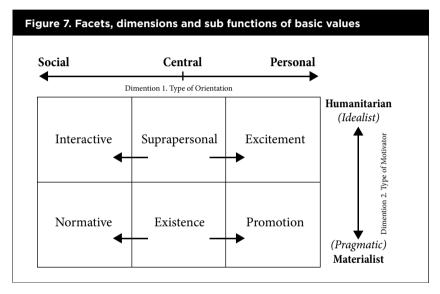
Rokeach (1973:5) defines values as "an enduring belief that a specif-

ic mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence". García and Dolan (2003:63) assume that "relatively stable strategic learning about a way of acting is better than the opposite to obtain our goals or to make the things go well". Depending on the level of analysis, we can find different levels (Roe and Ester, 1999) such as: country, group, and individual. Cultural values represent the implicitly or explicitly shared abstract ideas about what is good, right, and desirable in a society (Williams, 1970). Although cultural values will influence individual values, in this research we will focus on the individual level, specifically on the figure of the entrepreneur.

It is important to understand what the precedence of these values is and how they influence behaviors. Beliefs are structures of thinking, developed through a learning process that helps individuals to explain reality. Attitudes are consequences of the values and are tendencies to evaluate, positively or negatively, a person, thing or fact. Attitudes predict our tendency to act in a specific way (García and Dolan, 2003). In this sense, to modify behaviors it is necessary to change beliefs and values rather than only the attitudes (García and Dolan, 2003).

There are many theories that have tried to explain the motivational process. Theories focused on expectancy of success, theories focused on task value or theories that integrate expectancy and values (Eccles and Wigfield, 2002). In the last group of theories we found a modern expectancy value theory in which both these components – expectancy and value – are more related to social/cultural determinants and positively related to each other (Feather, 1988; 1995). Feather's work on values is an extension of Atkinson's original expectancy-value model, developed in important ways by broadening the conceptualization of value. He argued that values are one class of motives that lead individuals to perform acts they think should be done (Feather, 1995). This author assumes that values function like needs to influence goal directed behaviour and can influence the choices that are made between alternative activities and the way situations are constructed.

Gouveia (1998, 2003) has used the Functional theory of values for developing a new structure and domain of human values. As stated, Gouveia (1998, 2003; 2010) identified two functions of terminal values in the literature: (a) Values as guide to human actions, and (b) values as expressions of human needs. A combination of these two functions yields six sub functions of values – see Figure 7.



Source: Gouveia et al. (2010: 205)

#### Values as guide for human actions

Humans have to survive in an uncertain environment that may often be hostile. Thus one of the main targets of individuals is to make personal decisions about one's personal survival (Fischer et al., 2011). In order to look for the best options for survival we find people that put an emphasis on the group or else on oneself as the principal unit of survival (Fischer et al., 2011; Gouvieia, 2003; Mueller and Wornhoff, 1990; Rokeach, 1973). People guided by social values are oriented toward the society or interpersonal relationships. In contrast, people primarily guided by personal values are self-centered or intrapersonal in focus. Thus this functional dimension refers to the type of orientation values assume when guiding human actions.

Based on this function Gouveia (2003) proposed three types of values: social, personal or central. An intermediate set of values along this functional dimension can be empirically identified that is neither completely or exclusively social nor personal (Gouveia, 2003; Gouveia, Andrade et al., 2003; Mueller and Wornhoff, 1990; Schwartz and Sagiv, 1995). In this respect, Fischer et al. (2011) propose that this set of values is located between social and personal because it is not focused exclusively on either one of the two ends but rather is congruent with social and personal orientations. They argued that these values are both society-centered and self-centered.

#### Values as expression of human needs

The second functional dimension is associated with the expression of needs and refers to the type of motivator values fulfill (Fisher et al., 2011; Gouvieia, 2003). On the one hand, it is the materialistic needs, which refers to those needs that have to be satisfied to ensure the survival of the individual, the immediate social group, and the species (basic biological and social needs such as food and control) (Fisher et al., 2011). On the other hand, there are the needs that appear when the basic needs have been satisfied (Maslow, 1954; Wezel et al., 2003). These needs include the need for information, for intellectual, and emotional stimulation and the aspiration to obtain positive self-esteem (Fisher et al., 2011; Baumeister, 2005).

Hence, humanitarian or idealistic values are less oriented to concrete aims and have a universal orientation, empathizing with abstract principles and ideas. And materialistic values have an orientation toward specific goals, empathizing with preoccupation for conditions of survival, personal stability and security (Fisher et al., 2011).

Based on this function, values are classified as materialistic (pragmatic) or humanitarian (idealistic). Functional theory will be the framework to perform the analysis of the cases in this research.

#### Values under the perspective of the congruence theory

Among other assumptions, the congruence theory proposed by Nightingale and Toulouse (1977) states that the essence of person-organization fit lies in value and goal congruence between the person and the organization (Chatman, 1989; Kristof, 1996), within which the fit content may also change over time (Schneider et al., 1997). This theory has been also explored by Meir (1989) in order to highlight the situational congruence between some sets of aspects such as (1) vocational interests and occupational choices as a dichotomy of fit vs. nonfit, (2) the level of congruence between vocational interests and occupational choices —both along an occupational structure, (3) environmental congruence, and (4) withinoccupation congruence.

As stated previously, congruence theory (along with functional theory) will be followed to analyze the findings reached during the interviews with participants.

## 4.3. Methodology

Six entrepreneurial stories for this study were selected in order to make a deep analysis of the eight entrepreneurs leading their new technology ventures. Due to the nature of the industry, all the participants in the cases studied possess great levels of technical and managerial knowledge; so the participant companies were selected following these criteria: (1) all companies must belong to the high-technology sector, (2) the founder or entrepreneurial team possess high levels of technical knowledge and some knowledge of management as well (3) all are companies offering new products or services with growing high potential in market. Specifically, some characteristics of the companies and participants in this study are the following:

Table 12. Company profiles

Firm	Year	Sector	Sub-sector	Employees
Company 1	2004	High-technology	ology Bio-Chemistry 16	
Company II	2003	High-technology	chnology IC Technologies 27	
Company III	1999	High-technology	gy Telecommunications 14	
Company IV	2004	High-technology	Software 22	
Company v	2005	High-technology	Health-technologies	6
Company VI	2006	High-technology	Health-technologies 4	

Table 12a. Participant demographics.

Participants	Gender	Nationality	Number of founders
P1	Male	Spanish	2
P2	Male	Spanish	2
Р3	Female	Spanish	1
Р4	Male	Spanish	2
Р5	Male	Spanish	2
Рб	Male	Spanish	1
Р7	Female	Spanish	1
Р8	Male	Italian	1

First contact with the participants was made by telephone. During the initial telephone discussion with at least one of the companies' founders, the aims and objectives of the case study were outlined. Also our requirements about who should be interviewed and the approximate duration of the interview were explained. Some of the participants were concerned about confidentiality issues, while others had no problem talking about their personal stories. Our interest in using the case study for publication was also revealed at the first contact, preserving at all times the anonymity of the companies and the confidentiality of information. At this point

we made sure the participants matched the requirements of the sample, and we left out those who did not. Our data collection consisted of deep personal interviews conducted using semi-structured questionnaires as a guide. As mentioned, the interview content was drawn from academic literature and also guided by previous studies.

The interviews included questions about the general characteristics of the company and the personal characteristics of participants. Through the exercise of these deep interviews we gathered information relating to their skills, and personal values and how these values were affecting the management of the new venture and their growth expectations. Besides, the participants were asked about their perceptions of growth and how they planned to grow in their companies.

During the visit to the companies in July 2010, extended interviews were conducted with at least one or two of the founders of each company. Each case study lasted approximately 2 hours. In addition to the interviews, we used secondary sources to verify the statements and to obtain supplementary information. The information gathered from each organisation was written up as a case study and the principal observations extracted.

#### Research design

According to several qualitative methodologists, multiple case-based research may serve as a basis for either empirically testing previous theories or building new theoretical explanations of the phenomenon being researched (Eisenhardt, 1989; and Yin, 1989, 1998).

Our intention was to explore the personal values of nascent entrepreneurs in New technology-based firms (NTBFs) in relation to their start-up behavior. We were particularly interested in the way our participants' personal values influenced how they understood the growth of their company.

Following Gouveia et al. (2008; 2010), we recognize the existence of

two functional dimensions of personal values, giving place to two principal lines of the values structure. The horizontal axis belongs to the function of values that guide human actions, represented by the dimension type of orientation (personal or social), while the vertical axis represents the role of values as a guide to human needs, represented by the dimension type of motivation (material or humanistic values).

Semi-structured interviews were chosen as the technique for gathering this information, as these can address the "complex, sensitive or very personal" dimensions of a subject's motivations and experiences (Orhan and Scott, 2001).

We asked participants to define the term 'entrepreneur' and to confirm whether they saw them¬selves as entrepreneurs and then account for what motivated them to start a business and how they approached the risks of their business start-up.

All interviews were transcribed so that the analyses could take into account the language used. The first analysis involved coding those sections of each interview that addressed the personal values of participants and how they understand their company's growing process. When this analysis suggested the need for clarification, or additional background information was required, then participants were questioned via e-mail.

To achieve the objectives of the research we followed a qualitative methodology –case study – (Yin, 1989; Eisenhart, 1989), following different steps. First, the theoretical framework of the research was developed from a review of the literature. Second, we used this framework as a guide to organize our data collection and to analyze the data collected. In this sense, the relationship between the theoretical perspective and the empirical findings is very close (Yin, 1989). To obtain the data we used primary and secondary sources. Through holding deep interviews we gathered information related to the participants' levels of technical and managerial knowledge and used different questions to establish the presence of certain personal values and show how these two factors could

exert some kind of influence on the participants' perceptions of their ventures' growth.

By adopting the founder/s as the main unit of analysis, our empirical research is based upon a systematic application of the multiple-holistic case study approach to a new technology context in which six new ventures created in Catalonia (Spain) were first judgmentally – not randomly – chosen and then comparatively examined. This conceptual sampling design allowed us to introduce some degree of variance in our case selection criteria by including differences in the entrepreneur's gender and origin and to compare individual entrepreneurs with entrepreneurial teams. However, to be consistent with previous research on entrepreneurial firms which are typically regarded as young and small in size (Zacharakis, 1997), all firms in the purposeful sample had to be small, and independently managed.

### 4.4. Results, findings and discussion

This study finds considerable congruence between participants' articulated self values and the way they decided to make their company grow and manage its growth. As mentioned previously, the main question to answer in this work is: how do entrepreneurs' personal values guide the way they understand and perceive growth in their companies?

Personal values as guides to attitudes and hence behavior will set the way in which entrepreneurs understand and conceive of growth, and this will condition their expectations for future growth and other related aspects such as the satisfaction level with the actual performance of their companies.

According to Gouveia's classification of personal values and following the functional theory, we identified entrepreneurs' values that belong to four different dimensions in our study: Suprapersonal, Existence, Excitement and Promotion (see Table 13)

*Table 13. Dimensions of personal values according to the functional theory.* 

Dimensions	Social	Personal
Idealist	Suprapersonal: Beauty, knowledge, maturity	Excitement: Emotion, pleasure, sexuality.
Pragmatic	Existence: Health, personal stability, survival.	Promotion: Power, reputation, prestige, success.

Adapted from: Gouveia (2010)

Types of entrepreneurs' values in the distinct quadrants of the graphic, as well as the relation of these characteristics to the companies' growth are explained next:

1. Suprapersonal.- Individuals in this dimension tend to be more pro-social and idealistic. For entrepreneurs with this type of values and interests, the company's growth is only a means to achieve superior goals. They refer to the growth of their company as something necessary but are always seeking for goals conceived of from a more social point of view.

Due to the pro-social profile of this type of entrepreneurs, company growth is the perfect way to give value to their community through the employment of a greater number of people. They pursue for example, gender equality through their entrepreneurial activity, or look for the user's benefit with the product or service they develop.

**2.** *Promotion.* - In this quadrant of the graphic, entrepreneurs tend to be pragmatic and individualists. Entrepreneurs conceive of growth as a means to an end as well, but the aim is to achieve personal growth and social recognition. However this recognition is due more to the dimensions of the achievements and the success of the projects. In their speech, the activity they develop and the originality of their products are topics of secondary importance.

They focus more on the achievement of growth. New products and services are considered means to growth and expansion.

At the personal level these entrepreneurs conceive of the growth of their company as an indicator of personal success. If the company grows they define themselves as successful.

Entrepreneurs with these characteristics have no need for total control over the company, and they do not mind transferring part of the company in order to achieve faster growth. They are more pragmatic and pro-individual.

3. Excitement. - Individuals with these peculiarities are more individualistic and pragmatic. In this case, the company's growth is considered also to be a means for competitiveness in the market. However, the entrepreneurs focus more on the satisfaction of doing what they love to do; in this case, growth is the means that guides entrepreneurs to the end state of doing what they like, in most of the cases a scientific activity.

This type of value is mostly recognized among researchers and scientists. These professionals really care about the product they work on. They control every single detail of the research; in the high technology field they consider the company as a way to continue developing their research.

4. Existence. - Individuals who tend to value existence are more pro-social but at the same time are pragmatic. In these cases the entrepreneur conceives of growth as the only way to survive. They recognize that the existence of the company depends on constant and continuous growth; survival of the company is in danger if there is not sustained growth. All the efforts of the company must be oriented to growing up no matter with what or how.

Due to his pro-social profile, the entrepreneur seeks for equilibrium between professional and personal life. Every single action within the company is motivated and justified under the premise that it is the only way to keep the firm alive. During the semi-structured interview, several questions were put to the participants regarding different aspects of their personal life and the company. Among them, key questions were asked such as: What is growth for you? Why do you want your company to grow? What does the growth of your company mean to you? Why is the growth of your company so important to you? What is in it for you? What is the role of your employees during the first years? How is your relationship with your context?

Table 14 presents evidence to reflect the profile of each entrepreneur participating in the study:

Participant	Value catego- ries	Illustrating central themes
P1	Promotion	<ul> <li>COMPANY_GROWTH. There is no limit for growing; we need to grow up to attract more investors.</li> <li>PERSONAL_GROWTH. Since I was nine, I knew I wanted to give jobs not receive one.</li> <li>Those who fail are those who depend on someone else.</li> <li>ENTREP. In our company we don't look for entrepreneurs but for workers. We are the only entrepreneurs. Persons wishing to have children fit well here, they tend to be more stable.</li> </ul>
P2	Promotion	<ul> <li>COMPANY_GROWTH. We need to keep offering products that bring money.</li> <li>PERSONAL_GROWTH. It is important to understand the culture of effort, someday I'll be able to spend time with my loved ones.</li> <li>ENTREP. We can lose our employees, that's very expensive. That's why we choose the best.</li> </ul>

Table 14. Entrepreneurs' value categories

Participant	Value catego- ries	Illustrating central themes
Р3	Suprapersonal	<ul> <li>COMPANY_GROWTH. To make a bigger company implies greater expertise, more quality and better possibilities of professional and personal development.</li> <li>PERSONAL_GROWTH. If my company grows until I don't need to be in charge, I'll be able to create a fund for other entrepreneurs and enjoy more free time for myself.</li> <li>ENTREP. A key point for us in the company is the existence of congruence between employees' personal values and the company's corporate values.</li> </ul>
Р4	Promotion	COMPANY_GROWTH. I created my com- pany to do something big and important, to reach a superior achievement. PERSONAL_GROWTH. I never rest, for me the company is always first. I always wanted to be an entrepreneur. ENTREP. Our people (employees) must be the best, I want a big and dynamic company.
Р5	Promotion	<ul> <li>COMPANY_GROWTH. If the company grows, we will be more recognized and rewarded. The results are the most important factor, we need to be pragmatic.</li> <li>PERSONAL_GROWTH. For me, to be recognized was really important. Nowadays it is different but at that time I wanted to see myself as a successful professional.</li> <li>ENTREP. We need to attract the best person in each field and have them working for us.</li> </ul>

Participant	Value catego- ries	Illustrating central themes	
Р6	Existence	<ul> <li>COMPANY_GROWTH. This (creating a business) is a marathon, not a 100 meters race.</li> <li>PERSONAL_GROWTH. My family is my vital balance; my wife has been a key for all this. It is important to enjoy life, I never answer the cell phone while I'm at home.</li> <li>ENTREP. It is important to gain the fidelity of our employees, they are the ones who put in the knowledge that makes us different and keeps us alive in the market. For me it is basic not to lose control of the company.</li> </ul>	
Р7	Suprapersonal	<ul> <li>COMPANY_GROWTH. I was enormously worried about the pain of patients. Nobody cares about the post-surgery phase but I do. We should spread this concern.</li> <li>PERSONAL_GROWTH. Money is only a means. I seriously try to enjoy life and travel. I try to make the company grow, this allows me to do what I really like.</li> <li>ENTREP. We are unique in the market so we need the best people on our side.</li> </ul>	
Р8	Excitement	<b>COMPANY_GROWTH.</b> We need more projects to increase the incomes of the firm and keep working at what we love. <b>PERSONAL_GROWTH.</b> For me, the company's growth means intellectual stimulation and freedom. I'm obsessed with work, I just can't stop working.	

# 4.5. Conclusions

In this work we have classified the types of entrepreneurs, among eight founders of new ventures in the high technology sector, according to the functional theory of values proposed by Gouveia (2010). Results were explored following the dimensions personal-social and idealist-pragmatic, giving place to the four types of entrepreneur we took into account to analyze the findings of the interviews conducted. These types are: Suprapersonal, Promotion, Excitement, Existence, all of which were explained and discussed previously.

**Promotion:** We identified some participants who possess values that allocate them in the promotion category (P1, P2, P4, P5). As stated before, entrepreneurs of this type have values that make them conceive of growth as a means to achieving personal recognition; participants declare that they care about the social status of being "successful"; they feel the need to be rewarded or recognized either in a personal way or as the best company.

*Suprapersonal*: Another group of participants (P<sub>3</sub>, P<sub>7</sub>) highlighted characteristics related to the group of values called suprapersonal. These values tend to prioritize social issues rather than the personal. These participants care about others; about the welfare of the community they interact with. They conceive of the company's growth as a means to promote development of the community as well as the personal and professional development of community members.

*Existence*: One of the participants (P6) claimed to have interests related to balance in personal life, but also conceived of the company's growth as a long distance race, so in order to survive in the market there must be constant unflagging growth. He also cares about maintaining control over the company at all times and gaining the loyalty of high-skilled workers; they put their knowledge into the company and keep it alive in the market. These values belong to the category existence.

Besides all this, P6 says he has a great interest in keeping a good atmosphere at home with the family and loved ones. He recognizes the importance of growth but also realizes that it is the family that keeps him focused and ready to continue. Growth is important but not so urgent as to put at risk personal and family balance. He tends to have everything in order in the company so he never has to answer the cell phone at home.

*Excitement*: Participant 8 presents values related to the category excitement. The satisfaction that comes from doing what you love is greater than the need for growth whether economic or in size. He seeks to achieve growth in the company as a way to keep doing what he loves to do and to feel the satisfaction of exploiting his own intellectual capacities.

P8 declared he was most interested in applying the knowledge and expertise acquired during his life, to some real project. As long as the company grows and stays in the market, he will be able to keep doing what he likes, which is what really matters for P8.

As stated before it is common to find in this category, researchers and high-skilled founders looking for ways to apply their knowledge in real situations and projects. P8 finds work completely exciting and conceives of growth as the source of new projects. He desires to grow as a company in order to start new and innovative challenges.

Another characteristic identified is that those entrepreneurs with more social-oriented values (P<sub>3</sub>, P6 y P<sub>7</sub>) tend to consider it important not to lose control of the company. During the interviews they mention the importance of growing but using only their own capital as much as possibl (*P6: It's important to grow with our own capital; we cannot lose control*).

Another important aspect for these "social-oriented" founders is the role that informal relations (especially the family and the couple) play in all the growing process. They all recognized the key role of their marriage in the development of their activity (P6: *my family is my balance and have made all this possible, they have been really important in this process*; P3: *My first concern is to take care of my loved ones and the work comes after that. If you don't enjoy your family, how can you really work properly?*).

On the other hand, those entrepreneurs with a more individualistic orientation describe a different role for the family in respect of the company's development. In these cases (P1, P2, P4, P5, P8) entrepreneurs recognize that they would like to spend more time with the family but only once the company has grown enough to let them have more free time; at this moment the company's growth is the priority (P1: *I've been my whole life preparing myself to be an entrepreneur and now I understand the sacrifice of that; I haven't stepped in a discotheque since I was 24; P4: The company is always first and that's it; P5: It's complicated to make company and family compatible but if you want the firm to grow you have to choose; P8: My wife doesn't interfere in my work, I think I'm obsessed with work, I get really mad when I don't finish something at work. 75% of the times I take work home; my wife is independent so she can handle that).* 

The common characteristic of entrepreneurs with idealist values is that they understand the growth of their companies as a means to achieving superior goals, either of a social or individual nature. In the cases of P3 and P7 we observe how their motivations to make the company grow are clearly focused on having a really good impact on society and to make it better (P3: Our company is a small change agent for giving society the same opportunities in a sector as complicated as the technology one; P3: with our company's growth we will be able to support women entrepreneurs so they can realize their projects; P7: Our product will provide a better quality of life to many patients; at the end of the day the most important thing is to take the product to them).

Another example of this is P8 who clearly emphasizes the importance of the intellectual stimulation and the satisfaction that developing his activity produces on him (P8: *The atmosphere in which I work is intellectually stimulating and that makes me feel free, makes me feel alive*).

Entrepreneurs with a more pragmatic orientation are defined by the motivation to grow in a materialistic way; much more than those entrepreneurs with an idealistic orientation. This group of entrepreneurs cares more about, for example, social or personal recognition.

#### Implications, limitations and future lines of research

This chapter has analyzed how personal values play an important role when we try to understand the motivations of entrepreneurs to make a company grow up.

Different theories have been used to explain and contextualize the personal values of entrepreneurs and how these values relate to the importance given by the entrepreneurs to their companies' growth over other aspects of their lives.

Despite the theoretical and practical contributions of this work, some limitations must be recognized. On the one hand we must be aware that this study focuses only on companies that belong to a sector with particular characteristics such as those in the business of high technology.

Entrepreneurs in this sector possess a very particular profile (mostly in terms of knowledge) so this makes it difficult to extend the conclusions to other sectors. It would be interesting to see results of the same type of study made in other economic sectors. The nature of this sector (high-technology) often makes entrepreneurs think in a more individualistic way, which means they are less pro-social, but would it be different in another kind of sector, like the cultural sector?

Besides, as stated in the theoretical remarks, personal values are strongly dictated and influenced by cultural values and due to the nature of this sample it was not possible to explore possible differences between cultures.

As a result of this research, some other lines of research should be considered. On the one hand it would be important to perform an analysis of the different personal values among the entrepreneurial team members. In the two cases we approached the compatibility was good among members (when they are categorized in the same dimension of entrepreneur profile); however it is important to investigate to what extent this is important for the expectations and plans of growth in the company. In this line it is important to conduct studies about companies' growth depending on how it is conceived of by the entrepreneurs. In this work it is demonstrated that growth does not mean the same for all founders, so more research should be done in terms of the type of growth that companies have according to their founders' personal values.

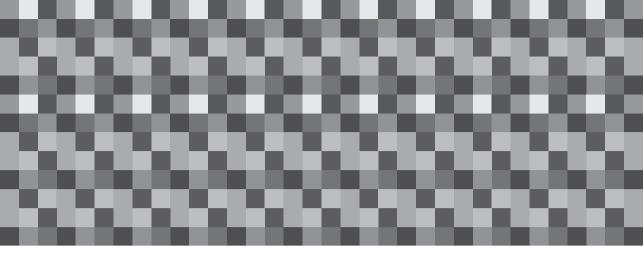
Until now, growth in new ventures has been commonly studied in terms of numbers and financial indicators (Friar and Meyer, 2003; West, 2007; Sapienza et al., 2004) however, in this work we conclude that the way of growing and the intensity of a company's growth is closely related to the values and motivations of those who lead this growing process.

The way in which participants conceive of growth in the company corresponds to the level of importance they give to other aspects of their lives and these perceptions are guided by certain types and orientations of personal values.

This is a topic that must be clearly understood by government agencies or public administration offices: governments commonly have programs that reward company growth (economically and financially); however they must include in their concept of a company's growth aspects that are not only directly related to financial and economic indicators such as the social impact that companies have through their services or products.

Among theoretical implications, this is a new work that provides researchers information about the role that entrepreneurs' personal values play in the managerial style of new ventures. There are authors that have previously worked on this topic (Schein, 2010; Gentile, 2010; Moriano et al., 2001) but it is clear that the topic has not been explored enough through research, especially in the entrepreneurship field.

The next chapter will present a case study that makes a deeper approach to the personal values of an entrepreneur and shows how they condition the managerial style of new venture founders and hence the company's growth.



# **Chapter 5**

# **Empirical issue III**

Personal values and the style of management: The case of ADICIONA

# 5.1. Introduction

Owner-managers' values determine the goals pursued by the business and influence their management style, their problem solving and decision-making behavior as well as the structure of the business and strategies employed (Olson and Currie, 1992; Verheul et al., 2002). Thompson and Strickland (1984, p. 49) noted that: "Strategy formulation is rarely so objective an analytical process that the personal values and aspirations of managers are excluded ... There is a natural human tendency for managers to draw upon their own personal values, background experiences, preferences, and ambitions when choosing among alternative strategies and when interpreting the strategic plan". In new firms, the factor that exerts the strongest influence in the organization culture is undoubtedly the founder (Schein, 2010). Founders of a new venture not only decide on the mission statement of the firm or the environment in which the firm will evolve but are also responsible for selecting the personnel who will be part of the organization, and they influence the way these people act within the organization (Schein, 2010).

Many other aspects related to the entrepreneur as an individual have been explored and analyzed in the literature. Several links have been explored such as strategic decision making or performance related to previous experience (Cooper et al., 1988; Birely et al., 1991; Forbes, 2005) or educational level and personal networks (Busenitz, 1999; Hoang and Antoncic, 2003; Slotte-Kock and Coviello, 2010). However the topic of personal values and their influence in the establishment of strategic lines of new ventures is a topic barely explored..

#### **Objectives of the research**

The main objective of this research is to understand how the personal values of an entrepreneur may influence the corporate culture of her/his venture and see how these personal values guide managerial practices, conditioning the growth of the company.

In this chapter we analyze the case of ADICIONA, a company founded in 2003 by a female entrepreneur in the technological services sector. This firm presents certain characteristics that make it unique in terms of the topic we are analyzing. On the one hand, during previous interviews with the founder we found that she has been always sure about her personal values and how these values relate to the corporate ones of her company. On the other hand we recognize that even though the founder has been guiding this company following her personal values at any cost, the firm has not stopped growing since it was started. This firm is a case that deserves to be studied because of the emphasis the founder puts on corporate values and the way the firm has consolidated in recent years. The company has been successful to the point where the founder has received different awards including the female entrepreneur of the year in Catalonia.

This chapter is structured as follows: First, there is a theoretical reflection about the founder's personal values and the relation of these to her professional activity. Methodology is presented next followed by a description of the activities of the firm as well as its relationship with the competitive environment. Then we present the corporate values that guide the strategic actions of the firm and the firm's plans in the short term. Finally this chapter presents a discussion of the results relating the findings to the literature.

# **5.2. Theoretical Framework**

Decision making is based on the needs or desires of an individual for a certain event to occur. These desires imply a variation of the individual's respect for perception of the same event by other individuals. One of the dimensions that regulate these variations between individuals is that of personal values (Postman et al., 1948; Bargh and Pratto, 1986). Indeed, Amit et al. (2001) insist that all cognitive models of decision making emphasize two primary components: (1) values and (2) beliefs (Amit et

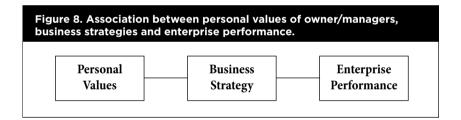
al., 2001). Rokeach (1973:5) defines values as "an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode or conduct or end-state of existence". Years later, Schwartz and Bilsky (1987) conceived of personal values as cognitive representations of three universal requirements (a) biological needs (b) interaction requirements for interpersonal relations and (c) social demands for survival and group welfare. Schwartz (1999) defines values as "conceptions of the desirable that guide the way social actors [...] select actions and evaluate other people and events"; in this sense, values are criteria or goals ordered by importance that serve as guiding principles in life.

In more recent research different authors have explored the influence of personal values in the work environment (Leung et al., 2006; Aygün et al., 2008; Carmelo-Ordaz et al., 2011; Renko, 2013). Smola and Sutton (2002), for example, state that personal values define what an individual thinks is right or wrong; in this sense, personal values define also what is correct or not in the workplace. Thus, the values that the individual applies in the workplace derive from personal values. However, in determined cultures, work values are the source some personal values arise from; for example the corporate values of multinational firms (Schwartz, 1999).

In the case of entrepreneurs, there are studies made in the last few years that demonstrate the possible existence of an influence by entrepreneurial team members' personal values on the decision making process related to the entrepreneurial activity. In this sense, one of the values most commonly associated with individuals who decide to create a new venture is the high value they give to being rich. We find this value in different classifications of personal values such as the Schwartz model (1992) in the dimension called power, or Gouviea's model (2010) in the dimension called promotion.

However, Amit et al. (2001) found evidence that it has not always been this way. These authors conducted in-depth interviews with 51 entrepreneurs and a control group of 28 senior managers who decided not to start ventures (non-entrepreneurs) in the high-technology industry in Britain. They found that economic wealth attainment was significantly less important to entrepreneurs relative to an aggregate of 10 other decision dimensions, and entrepreneurs did not rate wealth as any more important than non-entrepreneurs did.

Kotey and Meredith (1997) conducted an empirical investigation into the relationship between entrepreneurs' personal values and the strategies they adopt in their business. In their study of small furniture manufacturers, they found that entrepreneurial personal values such as ambition, creativity and hard work classified by Schwartz in the dimensions of achievement, hedonism and security respectively, were endorsed by owners who adopt a proactive strategic orientation. In this way, the authors state that there is a clear relationship between the strategies used and the new firms' performance (see Figure 8).



#### Source: Kotey and Meredith (1997: 41)

Heunks (1998) analyzed the rela¬tionship between the entrepreneur's values and attitudes and innovation. The results demonstrated that values such as flexibility and the propensity to take risks found in Schwartz's model (1992) in the dimensions of self-direction and stimulation respectively, have an effect on innovation.

The case presented next, analyzes the way in which the personal values of the entrepreneur have turned into the corporate values of the firm; and how this has supposed a strong competitive advantage and added value for the organization.

# 5.3. Methodology

The methodology used for this chapter is qualitatively based on a case study. The case study is recommended in qualitative research when the personal and social context – of the entrepreneur in this case – is relevant to understanding and comprehending the phenomena that need to be analyzed (Newman, 1994; Yin, 1989, 1993). Using case studies to analyze and explain experiences in an individual's trajectory has became a widely accepted technique for research in the field of management (Syed and Pio, 2010; Al Ariss and Özbilgin, 2010).

Particularly in this case we study the influence that the personal values of an entrepreneur exert on the decision making process for the development, survival and growth of a new firm, so case study methodology is adequate for this purpose (Eisenhardt, 1989; Yin, 1989).

The selection of this case was made considering distinct aspects. On the one hand as we stated, corporate values play a fundamental role in the definition of strategies and the founder of ADICIONA has a strong commitment to ensuring that no decision goes against her personal values and the corporate values. The history of the entrepreneur allows us to understand her personal values and how important it is for her to transmit them to the organization. On the other hand, this firm has shown a sustained growth since it started in a sector that is dominated by big companies. At the moment ADICIONA plans an expansion in the short and long term.

Regarding the data gathering and analysis, two semi-structured interviews were conducted, each one lasting 120 minutes approximately. Both interviews were audio recorded and then transcribed. Financial data were provided by the founder or extracted from the firm's web page with previous authorization given by the founder. It is worth mentioning that once the information had been related to the theory and put on paper, it was sent to the interviewee to ensure the faithfulness of our interpretation of the data. The analysis of personal values was made following the values classification presented by Schwartz (1990) because it is one of the most tested in studies analyzing the relation between personal values and organizations.

In order to reinforce the internal validity of the research, the information gathered through the interview was complemented with information from secondary sources (web page of the firm, economic reports, press publications, etc.).

# 5.4. Case Analysis

### ADICIONA and its competitive environment

ADICIONA was founded in April 2003 with the main objective of offering technical solutions to the information technology departments of firms tending to outsourcing. Many firms have encountered a great way of reducing costs in outsourcing their information technology departments, thereby increasing productivity and making processes more efficient. This increasing tendency is shown in table 15; in Spain, outsourcing firms have increased sales income according to the data available by 2008. KPMG analysts of the IT market are sure that the crisis of the last ten years has led to a new rise in the number of processes and services externalized as a mechanism for cost reduction and increased efficiency.

Company	Net income	Employees	Net Income/employee
Atos	331.910.250 €	4.841	68.562€
Accenture	258.634.464 €	1.889	136.916 €
Capgemini	242.902.000 €	3.246	74.832€
IN2	7.252.661 €	105	69.072 €
Solutio Outsourcing	6.850.746 €	159	43.072 €
Gepesa	2.575.845 €	31	92.354 €

*Table 15. Main outsourcing companies in the field of Information Technology in Spain, 2008.* 

Source: Data provided by ADICIONA (2011) obtained from Einforma

Regarding the information technology outsourcing, a study of the 4,100 biggest Spanish companies conducted in 2006 by Gonazález-Ramírez et al. (2007) established that firms go for a selective outsourcing of their technology services and information systems, externalizing those activities that are most specific and require a smaller degree of special accommodation to the profile of each client. At that time the contracts for outsourcing in information services in Spain tended to fix prices and be for short terms hoping not to become attached to a supplier offering a bad service. However, longer contracts appeared during the later years of the study, demonstrating the greater maturity or larger experience of the clients. Different signs pointed to the development of the externalization market and hence an increase in the number of outsourcing firms.

Although the main objective of ADICIONA when it was founded was to provide IT services to other companies, little by little they decided to focus particularly on those services that reported greater benefits. At the moment ADICIONA offers two main services: first, the specialized selection and recruitment of technological profiles and IT services, and second, implementation of management solutions for IT departments.

Regarding the service of technicians on-site (external technicians for the IT department), this is mostly requested by companies in the insurance and finance market (30%), energy industry (22%), telecommunications industry (16%) and public administrations (15%) (DBK, AEC and AETIC, 2009). Besides, this service is regularly requested by companies with more than 50 employees.

ADICIONA has aimed to provide on-site technicians to companies with a big IT department and needing specific services. ADICIONA also offers management consulting services for the IT departments, such as the revision and definition of processes, and application of specialized tools among others.

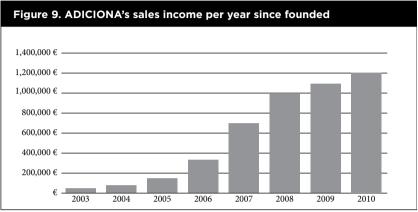
During the first years of the company, they aimed to offer their services to small businesses as well, but they soon discovered that this was not the ideal market for ADICIONA so they turned to focus on companies with higher incomes and a bigger size. At the moment ADICIONA has 21 employees (table 16) providing the service of on-site technicians, a number that is far less than the number of employees of their main competitors in the market (table 15).

Regarding the service of specialized profile selection, ADICIONA has two established departments: one section focused on IT and industrial engineers and another section focused on telecommunication and electronic engineers. Besides which the company absorbed the selection services of companies in commercial services, management and finance from companies that used to compete in these sectors. On the other side, ADICIONA offers training services for technical team managers to improve their talent attracting and retaining skills. During 2010 ADICIONA completed a total of 52 processes, going beyond the expectation of 40, with a net income of 128,700 Euros – see Figure 9.

At the national level there are several companies offering services that might be considered competition for ADICIONA. There are large companies in this sector, and some of them are multinational with a large number of employees and high net incomes. The big size of these companies tends to lead to the standardization of some services due to the volume of processes they manage. In this sense ADICIONA has had to exploit the competitive advantage of being a small company, personalizing even the smallest detail of their services to each client; this has become a solid base for growing.

As reflected in Table 15, competition against ADICIONA in the market is strong. Even though they have encountered their market niche and have grown constantly in the last years.

It is true that the results for ADICIONA were not those expected in the business plan, however they never presented losses either. During 2004 and 2005 the company already showed a considerable increase in sales. From 2005 to date ADICIONA has not stopped growing, and has reached sales levels above those expected. Sales growth is not the only concern for ADICIONA's founder Eli Abad but also the creation of employment, and the number of jobs has increased from 2 employees in 2003 to over 30 at this time.



*Source: Data provided by ADICIONA (2011)* 

### Table 16. Employment evolution in ADICIONA

Area	Number employees	Type of service
On-site	21	2 Web DTI
technicians		2 Applications support
		4 MBA IT Support
		11 Help Desk
		2 Programmers
Telemarketing	3	Attracting new clients
Consultants	3	Tech profile selection
Administration	1	Company management services
Systems	1	Company support
Direction	2	CEO (Eli Abad)
		Professional services and human
		resources (Jana Davesa)
Total	31	

Source: Data provided by ADICIONA (2011)

The interest of this case lies in the clear definition and defense of corporate values as a strategy for success in the long term. In the following chapter we analyze how this has happened and how loyalty to the values of the organization has led to taking key decisions for the sustainable competitiveness of the company.

#### The values of ADICIONA as a source of competitive advantage.

#### The founder

It is way too complicated to understand the functioning of a company like ADICIONA without analyzing the values that guide it as well as the values of its founder. The founder has practised a style of management based on the nonexistence of conflicts between her personal values and those values that guide the organization. This philosophy includes all the members within the organization from top to bottom.

ADICIONA was founded by a female entrepreneur in the technological services sector. The founder studied Physics but for several years worked for a multinational company as a consultant and systems manager specializing in e-mail servers. She decided to join an MBA program and the Master's final project was the foundation of her company. On April 3rd 2003, Eli Abad founded ADICIONA when she was 33 years old, and in March 2007 she would receive the prize "Female Entrepreneur of the Year" at the event Barcelona d'Ofici Emprendedora.

The main reason for the founder to create ADICIONA was to have the freedom to develop her skills and exploit her capacities in the direction she wanted to go. She always trusted in her capacity to make it. In the words of Eli Abad "I consider creating my own company was the way to orient my professional development in the direction I really wanted to go..."

Her past experience helped her to value aspects like economic independence and the importance of effort to obtain rewards.

The start for ADICIONA was not easy, and in its first years they had a sales income lower than expected in the business plan; however this situ-

ation didn't damage the founder's motivation. She recognizes that some hard times during her adolescence made her strong enough to beat all kinds of adversities. When these hard years came she decided not to give up; she would look for solutions instead of searching for a job in another company. She was sure that her own company was what going to provide her with the stability she was looking for "For me, stability is being capable of generating my own resources, being independent and protecting my people... that comes from being an entrepreneur".

From the beginning, Eli Abad was aware of how important it was to set up certain corporate values as well as having a clear mission statement. By now those values have evolved but they have never lost their original essence. In May 2009, after two years in her position, the professional services and human resources manager became a stakeholder. The new stakeholder had studied business administration and had a Masters degree in Human Resources Management. During her professional career she had worked as selection consultant for a prestigious international firm and then provided strategic human resources consulting services for other companies. During her time in ADICIONA, the founder of the company decided to invite her to become a stakeholder due to her involvement and commitment to the job. The founder was aware that her job was a key factor in the evolution of the company.

The initial founding documents of the company stated that the values of ADICIONA were: Quality, Innovation and Service orientation; however, as the company kept growing the founder realized these words did not actually reflect the real definition of the company's values. The words should explain what the company needed to keep clients satisfied and to be competitive in the market. The founder also realized that from time to time she used to take decisions that did not obey precisely these factors; something else was influencing the decision making process in the company. Following this up, the CEO and her team conducted an exercise of reflection to recognize the values that lie behind her expectations for the company. After several years, the founder was capable of stating the values in the welcome guide for new members of the organization, highlighting that the sharing of these values is fundamental for anyone wishing to be part of the team. The CEO recognizes that following and revising the corporate values implies costs, however this is the way she wants ADICIONA to compete in the market, keeping a balance between the satisfaction of clients and that of the members of the organization as well.

All those who are unable to adapt to this philosophy will have to leave, no matter the costs this might imply. Many organizations include in their corporate introduction the values that guide their activity but few of them truly believe in values as much as the founder of ADICIONA: "...it is always important to remember where we come from, what we have in common and where we are going" "...it's simple, it is not compatible to own a company with values different to your own personal values, besides it is fundamental to share them with at least some of the rest of the stakeholders".

The key factors that allow ADICIONA to be competitive in a sector where other companies offer cheaper services is the quality and quickness of their service. However it is important to consider that this firm was founded less than 10 years ago and has been able to maintain this competitive advantage during this time. The added value perceived by their clients is related to the corporate values transmitted by the founder from her personal values, reflected in the quality of the services offered by ADICIONA.

In this sense, the founder's profile as well as the strategies adopted by the firm allow us to observe clearly the influence of her personal values in the key decisions for the organization. Amongst these values we highlight the commitment to gender equality. This value is of great importance for the founder and during this case we noticed the influence that it has had on the competitive advantage of the firm. In the following paragraph we analyze how this occurs.

#### Corporate values of ADICIONA as a source of competitive advantage

Corporate values of ADICIONA are published in the welcome dossier given to each new employee as well as on the web page; these values are: honesty, transparency, equality, professionalism, responsibility, respect, team work and people orientation. In the following section we explain what lies behind each value and how they affect both short and long term decisions.

Next, we will analyze the practices and the managerial decisions that lie behind these values. We will analyze also how these values make it possible for ADICIONA to remain competitive in the market despite having a different strategy to that of their competitors.

#### Honesty

For ADICIONA, it is fundamental to be honest with their clients and also with their employees. The firm avoids any opportunistic behavior from any of the participants in a service process. In her own words "*We try not to fool anyone*".

RRegarding the service of on-site technicians, they analyze the needs of the client and do not offer any unnecessary service. They distinguish between junior and senior technicians and adjust the bill according to the capacities of the workers.

Regarding the technological service selection processes, ADICIONA offers a warranty. In case the worker leaves the job before six months have passed or the client is not satisfied with the worker in the same period of time, the process will be repeated at no extra cost to the client. On the other hand, if ADICIONA has failed to find the right profile they give up their claim to receive any payment and let the clients know about this.

#### Transparency

The clients of ADICIONA have information at all times about the costs incurred by the company for the service offered as well as the benefit perceived. Besides, ADICIONA celebrates an annual meeting to explain to all workers the company's situation, its growth, and the benefits obtained. To ADICIONA it is important that the various stakeholders in the services they offer have real and valid information on what is happening in the organization.

#### Equality

If there is a value of special importance to the founder of ADICIONA is that of equality. Indeed, 100% of the managerial team and 51% of the workers in the company are female. The founder recognizes that "*in a sector clearly dominated by men, equality is fundamental for the company; our obsession is to always choose the best candidate*".

Equality is so important for ADICIONA that an external company was hired to provide consulting services regarding the equality plan. The results of this revision demonstrated that the majority of the training courses were oriented to male workers because these were more prone to request complementary training. In 2011 requests for training coming from female workers were prioritized, tending to balance the conditions between both genders at the moment of competing for promotions. The founder of ADI-CIONA considers it a major commitment of the company to be contributing to the abolition of gender discrimination at work. She states that "to grow in the labor market women sometimes need to sign a "no-pregnancy" certificate in order to enjoy the same promotion privileges as men. Besides, women constantly face questions about their technological skills".

#### Professionalism and responsibility

The two main services offered by ADICIONA are attended to from start to finish. When a worker is selected to perform a job, the contact between ADICIONA and the client is crucial. The team analyzes in depth aspects like the characteristics of the position, the responsibility of the same position, the team the new worker will be part of, and the values of the client company; all this, looking for a better fit of person-organization. The founder states that "before starting a recruitment process it is fundamental to know the client's and the company's values; it is helpful to know what kind of people won't fit in at that place". The evaluation of the knowledge of candidates is made by technicians who have occupied similar positions before. They have also conducted tests and interviews to know the candidate and his/her personal values better. Finally, ADICIONA counts on the services of an expert in graphology for complementing the selection process.

This exhaustive process tries to ensure the satisfaction of the clients and it has worked so far. Satisfaction standards of the company are high, nearly 100%. After almost 10 years, ADICIONA has paid out from the warranty they offer just a couple of times, repeating the process with no charge to the client.

Once the candidate has been selected, the main process is the supervision of the work. In the on-site services the contact between the company and the worker is crucial. ADICIONA tries to keep both the worker and the company client satisfied. One example of their efficient selection process is that on many occasions the company's clients decide to make a direct offer to the candidates to join their organization, and ADICIONA supports that, trying to make the process easier as long as it benefits the worker.

The same selection process used for recruiting workers for its clients is used when the vacant position is inside ADICIONA. The philosophy of ADICIONA is to take as much time as is needed to ensure they hire the best candidate to become part of the team.

#### Respect and teamwork

Respect is one of the values that the founder of ADICIONA highlights. She considers respect is an indispensable condition for establishing and maintaining the internal and external relationships of the organization. In ADICIONA, respect between workers, managers, clients and suppliers is above any strategy or decision to be taken. In some cases the CEO had to intervene when she thought a client was not being respectful enough of her worker, even taking the risk of losing the client. In another case they had to let a worker on probation go, due to attitudes against solidarity. For the CEO the benefits of the company cannot compromise the workers' welfare at all.

### People orientation

In ADICIONA, 98% of the workers have a permanent contract after the first month, as the company puts so much time and effort into ensuring that the candidates selected fully meet the requirements of the company and fit perfectly into the working scheme. Every month the managers realize tracing interviews and every year they conduct a reflection exercise about the evolution of the company. With this exercise the company tries to perceive the satisfaction of workers and clients, to propose improvements and to solve possible deviations.

Sometimes this people orientation implies saying no to an increase in the market or refusing important clients. In this sense ADICIONA refuses to work with clients or suppliers who have an employee working under illegal circumstances.

The bet of ADICIONA on protecting the people makes the workers' training play a key role in the organization. Each year the employees received specialized training for each position as well as seminars oriented to improving their motivation and job satisfaction. One example of this, are the yearly seminars of "Positive Thinking".

After analyzing these values, it is important to identify the way in which the firm turns them into agents of competitive advantage. Fundamentally, the fact that corporate values make a difference in the way ADCICIONA works has a direct influence on its workers.

First of all, corporate values influence the workers' motivation and concretely their loyalty to the organization. Despite the characteristics of the market and the high levels of personal rotation in most of the firms in the sector, ADICIONA presents lower levels of personal rotation. Besides, the reputation acquired by the firm makes the waiting list of potential workers long. This means that the loyalty of the employees is high, so qualified technicians are ready to cover a spot when some worker presents low performance on the job; employees feel identified with the company.

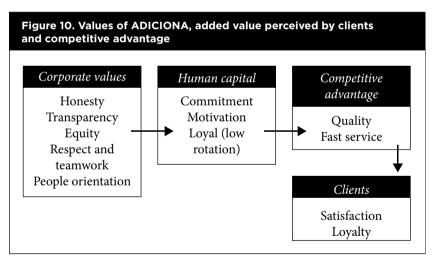
ADICIONA corporate values not only make employees feel engaged

with the organization but also the orientation of the company towards its people makes it possible to have internal policies that promote the professional development of employees.

Employees are in constant training and the company assumes the cost regardless any decrease in the profits.

All these aspects make it possible for ADICIONA to offer great quality in their services; this makes the difference in the market. In words of the founder "Our real challenge is to bring new clients. We are not worried about losing clients, that is something that does not happen often. Once they get to know us they stay even if we are a little more expensive".

Clients of ADICIONA perceive the service as a high quality one (see figure 3):



Source: Own elaboration

#### Strategy for the future of ADICIONA

ADICIONA is characterized as being an inclusive company where corporate values play a fundamental role in the organization's life from the beginning. At this moment, the founder believes that these values form the base of their competitive advantage and their constant growth. The company is now in an expansion process, they already have the first technician working in Madrid and the idea is to expand their market to Madrid, Bilbao and Valencia. They will open an office with a representative of the company in each of the cities mentioned. During 2012 they aim to create two new divisions of services oriented to Chemists and Architects or Road Engineers.

The founder is confident of internationalizing the processes in a few years and having a company based strongly enough on the corporate values for her to be able to stay away from the daily activity inside the company. She would love to spend time doing other things. One of her main personal projects is to create a fund to support female entrepreneurs. For her, the company's growing is not the end state desired but a means to support other women in the same situation as herself. At the moment she is a member of the Business Women's Circle, and has been part of the executive committee for 3 years <<...my goal is not to make the "big bucks" but to have enough to live and to realize other projects such as the investment fund for female entrepreneurs...>>

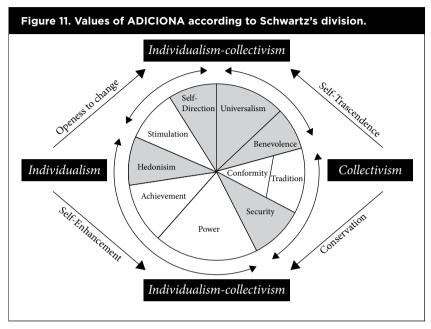
## 5.5. Results (Discussion)

ADICIONA is a firm that has been managed by its founder from the beginning. The personal values of the founder have strongly influenced the corporate values and serve as a reference for all the workers from day one of the recruitment process. These values are fully shared within the organization and are concerned with the welfare of the members of the team. These values can put people stability before economic benefits in the short term. These collectivist values have been more associated with female leadership styles than male styles where individualism is frequently observed.

In this sense and following the division of values by Schwartz (1990), we observe that most of the values of the founder of ADICIONA, which she has transmitted to the whole organization, pertain to the collectivist group of values and have transcendence objectives – see figure 1. Under this category we find those values that have as their basic motivation benevolence, these being honesty, responsibility and helping others. We also found values such as equality and social justice that have universalism as their motivation.

Following the collectivist values but with the motivation of conservation and conformity, we found respect and good conduct. In this sense we found also the value security and stability – more oriented to the family.

Regarding values of an individualist nature we identify values that support personal development such as the value "enjoying life" and values that incline towards openness to change such as self direction. In Figure 11 and Table 17 we found the values identified in the case according to the division made by Schwartz (1990). The role of personal values in the entrepreneurial process



Source: Adapted from Schwartz (1990).

Table 17. Personal values of the founder of ADICIONA.

Group	Meaning	Values	Data of the case
Hedonism	Pleasure and sensuous gratification for oneself (pleasure, satisfaction)	-Enjoying life	< <my goal="" is<br="">not to make the "big bucks" but to have enough to live and to realize other projects such as the investment fund for female entrepreneurs&gt;&gt;</my>

Group	Meaning	Values	Data of the case
Self-direction	Independent thought and action-choosing, creating, exploring (creativity, freedom, independent, curious, choosing own goals)	-Freedom	<< I consider creating my own company as the way to orient my professional development in the direction I really wanted to go>>
Benevolence	Preservation and enhancement of the welfare of people with whom one is in frequent personal contact (helpful, honest, responsible)	-Honesty -Helping others -Responsibility	The firm avoids any opportunistic behavior from any of the participants in a service process. In her own words < <they not="" to<br="" try="">fool anyone&gt;&gt;. &lt;<my goal="" is<br="">not to make the "big bucks" but to have enough to live and to realize other projects such</my></they>
			as the investment fund for female entrepreneurs>>

The role of personal values in the entrepreneurial process

Group	Meaning	Values	Data of the case
Universalism	Understanding, appreciation, tolerance and protection of the welfare of all people and of nature (broadminded, wisdom, social justice, equality, helping others)	-Equality -Social justice	<< In a sector clearly dominated by males, equality is fundamental for the company>> < <our obsession<br="">is to always choose the best candidate&gt;&gt;</our>

Source: Own elaboration.

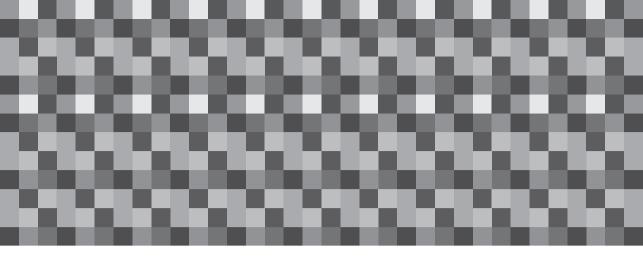
## 5.6. Conclusions

When we observe the evolution of ADICIONA in the last eight years we notice that it has not stopped growing, in all aspects, since it was founded – number of employees, sales income and net benefits.

After analyzing the case, it is clear that the managerial team of ADI-CIONA has taken decisions based on collectivist values and related to the female managerial style. These decisions may have caused the growth of the company to be slower than in other companies. Besides the company has realized expenses that might result inconceivable for other firms – e.g. equality plan auditing by an external consultant. Maybe some clients have run away due to the philosophy of the firm; however, ADICIONA has achieved stability for all the workers in the organization, and they all have professional development opportunities and constant specialized training. Besides, the company has a corporate culture which all the members believe in and feel indentified with. They present indicators of employee rotation and dismissal lower than the market average. The company has reached a clear equality for male and female in their professional opportunities within a sector dominated by males, gaining a great reputation among its clients. All these factors have been accompanied by constant economic growth. This work allows us to recognize that the transmission of values from the founder to the organization plays a fundamental role in the harmony and the good functioning of the business. These values – mostly of a collectivist nature – have been transmitted to the company in a conscious and reflected process. As a result of this, we are able to identify the influence of these values on the decision making and the planning of the main strategic lines of action

## 5.7 The current state of ADICIONA

The study was conducted in 2011. By now, the company has grown to up to 50 employees. In 2013, during the economic crisis in Spain, ADI-CIONA hired 18 new technicians and at the moment they have more than 100 clients. They have opened an office in Madrid. During the 11 years of their existence they have never quit being loyal to their values and the rest of the factors that make ADICIONA unique: quality and fast service. It is true that the benefit margin could have been bigger if they had decided not to follow their principles, however it is true as well that they have not stopped growing during 11 years in terms of sales and the number of employees. Three years after investigating this case we still found a managerial style that represents a sustainable model of growing in a responsible way.



# **Chapter 6**

**Final remarks** 

## 6.1. Main conclusions

All through this work the important role that personal values play during the entrepreneurial process has been explored and demonstrated.

Personal values compose a field of study that belongs to the field of psychology, however in recent years the role that these values play in the decision making of individuals in relation to their behavior or decision making has gained importance as a relevant topic of study in almost every field. Values occupy a prominent place in scientific and public discourse at a number of levels (Meglino and Ravlin, 1998). They are "among the very few social psychological concepts that have been successfully employed across all social science disciplines" (Rokeach and Ball-Rokeach, 1989: 775). However, little research has been conducted in terms of the role that personal values play within the whole conception of entrepreneurship.

In this work we find that personal values act as behavior guiding principles during different stages of the entrepreneurial process. Conceptions, classifications and definitions extracted from a variety of academic sources (different authors) have been used to state the theoretical perspective on the basis of which this work is conducted.

A review of literature on the topic of personal values is presented in chapter 2 in order to recognize the existence of several perspectives useful for analyzing a topic full of subjectivism, and to state what they are. In this chapter the different approaches studied are explained in order to serve as a theoretical base for the following empirical issues. Chapter 3 includes a quantitative empirical work in which the relation between personal values and attitudes towards entrepreneurial intentions is revealed. According to Schwartz (1992) and some other psychologists, intention is the best predictor of behavior and this is a good reason to study intentions in a sample that has not yet performed the activity in question (entrepreneurship) but has the potential to. In this line, the findings and results in chapter 3 demonstrate that personal values associated with individualistic behaviors have a positive impact on the attitudes towards an entrepreneurial intention. Values classified into this group (individualism) such as achievement, power, stimulation and self-direction present positive effects on the attitude towards entrepreneurships; even though many authors consider entrepreneurship to be by nature an individual action, findings of the experiment in chapter 3 also prove that personal values associated with collectivism (self-transcendence and security) have no conflict with the entrepreneurial attitudes. In fact one of them (self-transcendence) presents also a positive (though low) impact on the entrepreneurial attitudes. This may be associated with the recent tendency to study a phenomenon called social entrepreneurship.

In chapter 4 the role of personal values is explored as a way to explain and understand the expectations of growth and performance satisfaction of the founders of different new high-technology ventures. As shown in table 18, in this chapter we have classified the types of entrepreneurs, among eight founders of new ventures in the high technology sector, according to the functional theory of values proposed by Gouveia (2010). Results were explored following the dimensions personal-social and idealist-pragmatic, giving place to the four types of entrepreneur we took into account to analyze the findings of the interviews conducted. These types are: Suprapersonal, Promotion, Excitement, Existence, all of which were explained and discussed previously.

Type of entrepreneur	Participants of the study	Main characteristics
Promotion	P1, P2, P4, P5	Possess values that make them conceive of growth as a means to achieving personal recognition; participants declare that they care about the social status of being "successful"; they feel the need to be rewarded or recognized either in a personal way or as the best company.

Table18. Summary of findings in chapter 4.	Table18.	Summary	of findings	<i>in chapter 4.</i>
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Type of entrepreneur	Participants of the study	Main characteristics
Suprapersonal	P3, P7	They conceive of the company's growth as a means to promote development of the community as well as the personal and professional development of community members.
Existence	Р6	have interests related to balance in personal life, but also conceived of the company's growth as a long distance race, so in order to survive in the market there must be constant unflagging growth.
Excitement	P8	The satisfaction that comes from doing what you love is greater than the need for growth whether economic or in size.

Source: Own elaboration

Chapter number 5 goes deeper into one of the cases analyzed in chapter 4. During the analysis of the cases in chapter 4 we identified one special entrepreneur in terms of the relationship of personal values to corporate values and their competitiveness. In chapter 5 we conducted the case study of ADICIONA; a firm created by Eli Abad, an entrepreneur who has taken care to transmit these values to the whole organization, creating a particular organizational culture and demonstrating that a firm can grow and be competitive in the market following principles and organizational values at all times. The founder of ADICIONA has transmitted a set of values to her company. These values, according to the classification by Schwartz (1992) and following the founder's testimony are: Benevolence (honesty, helping others, responsibility) Conformity (Good conduct, discipline), Security (family stability and security), Universalism (Gender equality, social justice). According to the founder these are the organizational values that she decided to implement in congruency with her own personal values. Despite most of these values belonging to the collectivist orientation, ADICIONA has not stopped growing (number of workers and sales income) since founded. Following the organizational and her personal values, Eli Abad has had to lose workers and even important clients in order to be congruent with the organizational culture. We conclude that personal values oriented to collectivism do not restrain a company from growing in competitive markets.

According to the results and findings of this theoretical and empirical work we conclude that personal values function as 1) predictors of attitudes towards entrepreneurial activity, 2) regulators of conduct at different stages of the entrepreneurial process, 3) guiding principles in decision making in the entrepreneurial process, 4) factors that explain the desirability of starting-up or not and, 5) factors that reinforce the harmony and productivity within new companies.

## 6.2. Practical and academic implications

Academic implications of this work are first, the exploration and organization of existing literature regarding the topic of personal values that might be useful and suitable for the topic of entrepreneurship. Second, this work proposes the use of different theoretical approaches to study the topic of personal values in entrepreneurship. Third, the chapters of this thesis include empirical exercises in the field of entrepreneurship from the personal values perspective, something that has not been explored very much in academic literature.

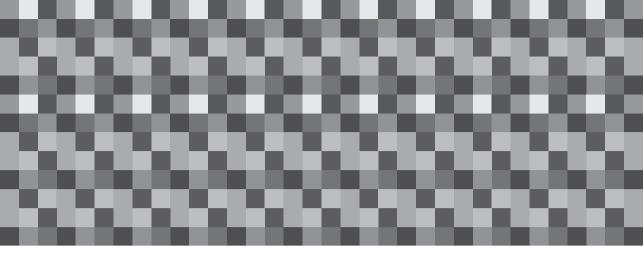
Practical implications include the proposal of an instrument to measure attitudes towards the entrepreneurial process among university students, adapting previous works on personal values to the context of university students. Besides, this work helps entrepreneurs or potential entrepreneurs to understand the congruent process of the selections of possible members of an entrepreneurial team according to personality and shared personal values. The work realized in this dissertation also provides entrepreneurs with an analytical perspective on the personal values that influence the satisfaction levels with the performance of the company and the expectations of growth among the team members. Finally, this work states the importance of taking into account the theme of personal values when governments develop different policies and programs to increase entrepreneurial activity, and will help them to understand that personal/cultural values somehow predict the entrepreneurial behavior of people as shown by analysis of personal attitudes.

## 6.3. Limitations of the study and future lines of research

This work presents the following limitations. First, due to the nature of the sample used in the quantitative study, the Schwartz (1992) scale for measuring personal values had to be adapted to the day to day situations of university students; not every group of personal values was included in the study. Besides, this study put into the model just one factor – attitudes – of the three that compose the theory of planned behavior; a future line of research might help to analyze the possible relation between personal values and the other two components of the TPB (social norm and perceived control).

Second, chapters 4 and 5 were based on case studies. Case studies help the reader to understand in depth the details and situations of particular cases, but these conclusions obey specific situations and it is difficult to generalize from the findings. Future lines of research might include a quantitative analysis of the influence of personal values on the expectations of growth among entrepreneurs. On the other hand, it is important to take into consideration that sometimes people behave or express ideas about social concerns that are at variance with their personal values. In this sense, a future line of research is analyzing the inconsistencies between the entrepreneur's personal values and their behavior. Thus the guidance function of the entrepreneur's personal values may sometimes be overridden by contextual factors (Boer and Fischer, 2013).

Third, personal values are strongly related to cultural values, so the findings and results of this research may vary from one place to another. A cross-cultural study about the influence of personal values on the different stages of the start-up process could make an interesting line of research in the near future.



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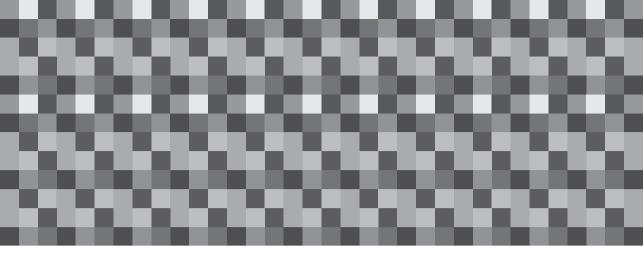
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## Appendix I

## Questionnaire applied for empirical issue I

APPENDIX			
Appendix I: Questionnaire applied for empirical issue	I		
UNIVERSITAT DE BARCELONA	Código "	! !	!!
Instrucciones:			
En el caso de haber nacido en un país distinto a España o t padres/-hermanos), conteste a <u>TODAS</u> las preguntas de la		es directos	extranjeros,
En caso contrario, NO conteste las preguntas precedidas de	e un asterisc	0 (*)	
I. Complete la siguiente información en relación con su proceso procede, pase a la pregunta 2 *. (1249) País de origen: Año de llegada a España (rellene sólo en el caso de haber nacido fuera de Esp Año de llegada a Cataluña (rellene sólo en el caso de que viviera previamente	paña)	-	Año  Númer
procede, pase a la pregunta 2 *. (v249) País de origen: Año de llegada a España (rellene sólo en el caso de haber nacido fuera de Esp	oaña) en otra región e iber nacido fuer	española) ra de España)	Año  Númer
procede, pase a la pregunta 2 *. (1249) País de origen: Año de llegada a España (rellene sólo en el caso de haber nacido fuera de Esj Año de llegada a Cataluña (rellene sólo en el caso de que viviera previamente Número de años que lleva residiendo en España (rellene sólo en el caso de ha Número de años que lleva residiendo en Cataluña (rellene sólo en el caso de o tra región española)	uber nacido fuer uber nacido fuer ue viviera prev	española) a de España) iamente en	Año  Númer
procede, pase a la pregunta 2 *. (1249) País de origen: Año de llegada a España (rellene sólo en el caso de haber nacido fuera de Esj Año de llegada a Cataluña (rellene sólo en el caso de que viviera previamente Número de años que lleva residiendo en España (rellene sólo en el caso de ha Número de años que lleva residiendo en Cataluña (rellene sólo en el caso de c	uber nacido fuer uber nacido fuer ue viviera prev	española) a de España) iamente en	Año  Númer
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procede, pase a la pregunta 2 *. (1249) País de origen: Año de llegada a España (rellene sólo en el caso de haber nacido fuera de Esp Año de llegada a Cataluña (rellene sólo en el caso de que viviera previamente Número de años que lleva residiendo en España (rellene sólo en el caso de ha Número de años que lleva residiendo en Cataluña (rellene sólo en el caso de o pra región española) Número de años que lleva residiendo en otro país distinto al país de su nacimi Número de años que sus familiares directos llevan residiendo en España	Daña) en otra región e liber nacido fuer jue viviera prev ento, sin ser Es	española) a de España) iamente en	Año  Númer
procede, pase a la pregunta 2 *. (1249) País de origen: Año de llegada a España (rellene sólo en el caso de haber nacido fuera de Esp Año de llegada a Cataluña (rellene sólo en el caso de que viviera previamente Número de años que lleva residiendo en España (rellene sólo en el caso de ne Número de años que lleva residiendo en Cataluña (rellene sólo en el caso de co tra región española) Número de años que lleva residiendo en otro país distinto al país de su nacimi Número de años que sus familiares directos llevan residiendo en España Número de años que sus familiares directos llevan residiendo ne España	Daña) en otra región e liber nacido fuer jue viviera prev ento, sin ser Es	española) a de España) iamente en	Año  Númer
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País de origen:	Daña) en otra región e liber nacido fuer jue viviera prev ento, sin ser Es	aspañola) a de España) iamente en paña	Año
procede, pase a la pregunta 2 *. (x24) País de origen: Año de llegada a España (rellene sólo en el caso de haber nacido fuera de Esj Año de llegada a Cataluña (rellene sólo en el caso de que viviera previamente Número de años que lleva residiendo en España (rellene sólo en el caso de haber nacido que lava residiendo en Cataluña (rellene sólo en el caso de de Número de años que lleva residiendo en Cataluña (rellene sólo en el caso de c tra región española) Número de años que lleva residiendo en otro país distinto al país de su nacimi Número de años que sus familiares directos llevan residiendo en España Número de años que anualmente, por término medio, pasa en su país de o Poseen sus padres un negocio propio? (vz7.36) En caso de haber trabajado en el negocio familiar, indicar el número de años	Daña) en otra región e liber nacido fuer jue viviera prev ento, sin ser Es	aspañola) a de España) iamente en paña	Año
País de origen:	oaña) en otra región e liber nacido fuer jue viviera prev ento, sin ser Es origen	española) ra de España) iamente en paña	Año
procede, pase a la pregunta 2 *. (x24) País de origen: Año de llegada a España (rellene sólo en el caso de haber nacido fuera de Esj Año de llegada a Cataluña (rellene sólo en el caso de que viviera previamente Número de años que lleva residiendo en España (rellene sólo en el caso de haber nacido que lava residiendo en Cataluña (rellene sólo en el caso de de Número de años que lleva residiendo en Cataluña (rellene sólo en el caso de c tra región española) Número de años que lleva residiendo en otro país distinto al país de su nacimi Número de años que sus familiares directos llevan residiendo en España Número de años que anualmente, por término medio, pasa en su país de o Poseen sus padres un negocio propio? (vz7.36) En caso de haber trabajado en el negocio familiar, indicar el número de años	opaña) en otra región e uber nacido fuer jue viviera prev ento, sin ser Es origen	española) ra de España) iamente en paña	Año

## The role of personal values in the entrepreneurial process

1						
No me importa trabajar bajo condiciones de incertidumbre siempre que haya una probabilidad razonable de que obtenga beneficios de ello	1	2	3	4	5	6
Evito involucrarme en cualquier actividad si implica algún riesgo, aunque sea calculado	1	2	3	4	5	6
Me involucro en actividades que tienen una posibilidad de que no salgan	1	2	3	4	5	6
Me implico en actividades con riesgos calculados a pesar de la posibilidad de fracaso	1	2	3	4	5	6
Siempre me mantengo alejado de las situaciones en las que no tengo absolutamente claros los resultados y consecuencias	1	2	3	4	5	6
Genero nuevas ideas bastante útiles	1	2	3	4	5	6
Propongo nuevas maneras de enfocar los trabajos, actividades o las clases en general	1	2	3	4	5	6
Abordo los trabajos de una manera innovadora	1	2	3	4	5	6
Encuentro nuevas formas de hacer las cosas	1	2	3	4	5	6
Frecuentemente hago las cosas de una manera única	1	2	3	4	5	6
Resuelvo los problemas que se me plantean de distinta manera y utilizando distintos puntos de vista	1	2	3	4	5	6
Me adelanto a los cambios en lugar de responder a ellos	1	2	3	4	5	6
Activamente arreglo o mejoro las cosas en lugar de quejarme por ello	1	2	3	4	5	6
Actúo para anticiparme a futuros problemas, necesidades o cambios	1	2	3	4	5	6
Tomo la iniciativa para comenzar nuevos proyectos	1	2	3	4	5	6
Tiendo a implementar cambios antes de que los necesite	1	2	3	4	5	6
Tengo la mente abierta a nuevas ideas y enfoques	1	2	3	4	5	6
Me resulta fácil adaptarme a los cambios de mi entorno	1	2	3	4	5	6
Soy capaz de cambiar mis procedimientos o reglas por conseguir un bien común	1	2	3	4	5	6
Sé cuáles son mis valores más imporantes	1	2	3	4	5	6
Actúo de acuerdo a mis valores	1	2	3	4	5	6
Las cosas que valoro son las que orientan mis acciones	1	2	3	4	5	6
Las tareas complejas y difíciles me inspiran	1	2	3	4	5	6
Es satisfactorio trabajar al borde de tu propio límite	1	2	3	4	5	6
Creo que el trabajo debe realizarse siguiendo el propio entusiasmo, más que simples rutinas	1	2	3	4	5	6
La creatividad es realmente útil solo para determinadas profesiones/carreras	1	2	3	4	5	6
En la vida cotidiana, ser creativo no es del todo necesario	1	2	3	4	5	6
Ser creativo hace que cometas muchos errores en la vida	1	2	3	4	5	6
Ser creativo no me supone una satisfacción	1	2	3	4	5	6
Ser creativo no supone tantas ventajas como parece	1	2	3	4	5	6

Indica tu nivel de acuerdo con las siguientes afirmaciones (v71-75):

!							
!							
	Totalm en desacu						lmente cuerdo
Ser un emprendedor supone más ventajas que desventajas	1	2	3	4	5	6	7
Una carrera como emprendedor es atractiva para mí	1	2	3	4	5	6	7
Si tuviera la oportunidad y recursos, me encantaría crear una empresa	1	2	3	4	5	6	7
Ser un emprendedor me supondría una gran satisfacción	1	2	3	4	5	6	7
Entre varias opciones, yo preferiría ser emprendedor	1	2	3	4	5	6	7

Si decidieras crear una empresa, crees que las personas de tu entorno más cercano aprobaría esta decisión? (/76-78):

Total desapro	bación				aprol	Total bación	
1	2	3	4	5	6	7	
1	2	3	4	5	6	7	
1	2	3	4	5	6	7	

Indica tu nivel de acuerdo con las siguientes afirmaciones (V79-84):

Crear una empresa y continuar trabajando en ella sería fácil para mí
Estoy preparado para comenzar una empresa viable
Puedo controlar el proceso de creación de una nueva empresa
Conozco los detalles prácticos necesarios para crear una empresa
Sé como desarrollar un proyecto empresarial
Si intentara crear una empresa, tendría una gran probabilidad de tener éxito
!
Indica tu nivel de acuerdo con las siguientes afirmaciones (V85-91):

inuica	lu II	iver	ue	acueruu	COLL	las	siguiernes	annacione	<b>5</b> (V85-91):

Estoy listo para hacer cualquier cosa para ser un emprendedor
Mi objetivo profesional es ser un emprendedor
Haré los esfuerzos necesarios para poner en marcha mi propia empresa
Estoy convencido de crear una empresa en el futuro
Tengo pensamientos muy serios de comenzar una empresa
Tengo la firme intención de comenzar una empresa algún día

Totair en desac						lmente cuerdo
1	2	3	4	5	6	7
1	2	3	4	5	6	7
1	2	3	4	5	6	7
1	2	3	4	5	6	7
1	2	3	4	5	6	7
1	2	3	4	5	6	7
1	2	3	4	5	6	7

en	Totalmente en desacuerdo							
1	2	3	4	5	6	7		
1	2	3	4	5	6	7		
1	2	3	4	5	6	7		
1	2	3	4	5	6	7		
1	2	3	4	5	6	7		
1	2	3	4	5	6	7		

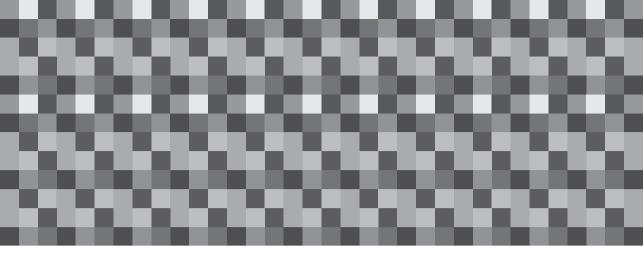
	Totain en	nente					iment
	en desac	uerdo				de a	cuerde
Ser un emprendedor supone más ventajas que desventajas	1	2	3	4	5	6	7
Una carrera como emprendedor es atractiva para mí	1	2	3	4	5	6	7
Si tuviera la oportunidad y recursos, me encantaría crear una empresa	1	2	3	4	5	6	7
Ser un emprendedor me supondría una gran satisfacción	1	2	3	4	5	6	7
Entre varias opciones, yo preferirla ser emprendedor	1	2	3	4	5	6	7
Si decidieras crear una empresa, crees que las personas de tu entorno (V76-78).	más ce	rcano a	aproba	iría est	a deci	sión?	
	Total desapro	hación				2010	Tota bació
Tu familia cercana	1	2	3	4	5	6	7
Tus amigos	1	2	3	4	5	6	7
Tus compañeros	1	2	3	4	5	6	7
	en						
	Totaln	ente					lment cuerd
	en desac	uerdo					
Crear una empresa y continuar trabajando en ella sería fácil para mí		uerdo 2	3	4	5	6	7
Crear una empresa y continuar trabajando en ella sería fácil para mí Estoy preparado para comenzar una empresa viable	desac		3 3	4	5 5		7
	desac 1	2	-	•	-	6	
Estoy preparado para comenzar una empresa viable	desac 1 1	2 2	3	4	5	6 6	7
Estoy preparado para comenzar una empresa viable Puedo controlar el proceso de creación de una nueva empresa	desac 1 1 1	2 2 2	3	4	5	6 6 6	7
Estoy preparado para comenzar una empresa viable Puedo controlar el proceso de creación de una nueva empresa Conozco los detalles prácticos necesarios para crear una empresa	desac 1 1 1 1	2 2 2 2	3 3 3	4 4 4	5 5 5	6 6 6	7 7 7
Estoy preparado para comenzar una empresa viable Puedo controlar el proceso de creación de una nueva empresa Conozco los detalles prácticos necesarios para crear una empresa Sé como desarrollar un proyecto empresarial	desac 1 1 1 1 1	2 2 2 2 2 2	3 3 3 3	4 4 4 4	5 5 5 5	6 6 6	7 7 7 7 7
Estoy preparado para comenzar una empresa viable Puedo controlar el proceso de creación de una nueva empresa Conozco los detalles prácticos necesarios para crear una empresa Sé como desarrollar un proyecto empresarial Si intentara crear una empresa, tendría una gran probabilidad de tener éxito	desac 1 1 1 1 1	2 2 2 2 2 2	3 3 3 3	4 4 4 4	5 5 5 5	6 6 6	7 7 7 7 7
Estoy preparado para comenzar una empresa viable Puedo controlar el proceso de creación de una nueva empresa Conozco los detalles prácticos necesarios para crear una empresa Sé como desarrollar un proyecto empresarial Si intentara crear una empresa, tendría una gran probabilidad de tener éxito	desac 1 1 1 1 1	2 2 2 2 2 2 2	3 3 3 3	4 4 4 4	5 5 5 5	6 6 6 6 6 70ta	7 7 7 7 7 7
Estoy preparado para comenzar una empresa viable Puedo controlar el proceso de creación de una nueva empresa Conozco los detalles prácticos necesarios para crear una empresa Sé como desarrollar un proyecto empresarial Si intentara crear una empresa, tendría una gran probabilidad de tener éxito	desac 1 1 1 1 1 1 1 1 1 1 1	2 2 2 2 2 2 2	3 3 3 3	4 4 4 4	5 5 5 5	6 6 6 6 6 70ta	7 7 7 7 7 7
Estoy preparado para comenzar una empresa viable Puedo controlar el proceso de creación de una nueva empresa Conozco los detalles prácticos necesarios para crear una empresa Sé como desarrollar un proyecto empresarial Si intentara crear una empresa, tendría una gran probabilidad de tener éxito I Indica tu nivel de acuerdo con las siguientes afirmaciones (ves-en):	desac 1 1 1 1 1 1 1 1 1 1 0	2 2 2 2 2 2 2 2 2 4 4 4 4 4 4 4 4 4 4 4	3 3 3 3	4 4 4 4	5 5 5 5	6 6 6 6 7 0 tota de a	7 7 7 7 7 7 7
Estoy preparado para comenzar una empresa viable Puedo controlar el proceso de creación de una nueva empresa Conozco los detalles prácticos necesarios para crear una empresa Sé como desarrollar un proyecto empresarial Si intentara crear una empresa, tendría una gran probabilidad de tener éxito I Indica tu nivel de acuerdo con las siguientes afirmaciones (vss-91): Estoy listo para hacer cualquier cosa para ser un emprendedor	desac 1 1 1 1 1 1 1 1 Totaln en desac 1	2 2 2 2 2 2 2 2 2 4 1 2 4 1 2 4 2 4 2 2 2 2	3 3 3 3 3	4 4 4 4 4 4 4	5 5 5 5 5	6 6 6 6 7 0 tota de a	7 7 7 7 7 7
Estoy preparado para comenzar una empresa viable Puedo controlar el proceso de creación de una nueva empresa Conozco los detalles prácticos necesarios para crear una empresa Sé como desarrollar un proyecto empresarial Si intentara crear una empresa, tendría una gran probabilidad de tener éxito I Indica tu nivel de acuerdo con las siguientes afirmaciones (ves-en): Estoy listo para hacer cualquier cosa para ser un emprendedor Mi objetivo profesional es ser un emprendedor	desac 1 1 1 1 1 1 1 1 1 1	2 2 2 2 2 2 2 2 2 4 1 1 1 1 1 1 1 1 1 1	3 3 3 3 3 3	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	5 5 5 5 5 5 5	6 6 6 6 6 7 0 tota a 9 6 6	7 7 7 7 7 7 8 Ilment cuerd 7 7
Estoy preparado para comenzar una empresa viable Puedo controlar el proceso de creación de una nueva empresa Conozco los detalles prácticos necesarios para crear una empresa Sé como desarrollar un proyecto empresarial Si intentara crear una empresa, tendría una gran probabilidad de tener éxito I Indica tu nivel de acuerdo con las siguientes afirmaciones (vesen): Estoy listo para hacer cualquier cosa para ser un emprendedor Mi objetivo profesional es ser un emprendedor Haré los esfuerzos necesarios para poner en marcha mi propia empresa	desac 1 1 1 1 1 1 1 1 1 1 1 1	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	3 3 3 3 3 3 3 3 3 3 3 3		- 5 5 5 5 5 5 5 5 5 5 5	6 6 6 6 6 7ota de a 6 6 6	7 7 7 7 7 7 7 8 1 1 1 1 1 1 1 1 1 1 1 1

180

1							
En el caso de crear una empresa propia, ésta tendría un ámbito de actuación internacional !	1	2	3	4	5	6	7
Indica tu grado de acuerdo en relación con las siguientes afirmaciones I:a	\$%273\$ ()						
	Total en	mente					Total de ac
Decido siempre por mi mismo lo que hago.		cuerdo					
	1	2	3	4	5		6
No me gusta recibir opiniones de quien no esta de acuerdo con las decisiones qu tomo	e 1	2	3	4	5		6
Escucho y tomo en cuenta las opiniones de mi familia y amigos antes de toma una decisión	<sup>ar</sup> 1	2	3	4	5		6
Me gusta explorar escenarios desconocidos para llevar a cabo mis ideas	1	2	3	4	5		6
Prefiero desarrollar mis actividades en ambientes de seguridad, lejos d situaciones riesgosas	e 1	2	3	4	5		6
No temo a expresar mis ideas por muy extrañas que éstas sean	1	2	3	4	5		6
Establezco mis propias metas y no permito que alguien me diga a "dónde deb llegar"	0 1	2	3	4	5		6
Me gusta sobresalir en mi entorno (amigos, familia, escuela)	1	2	3	4	5		6
Soy una persona que trata de ser líder en cualquier trabajo en equipo	1	2	3	4	5		6
Me gusta tomar la iniciativa para realizar una actividad	1	2	3	4	5		6
Cuando soy lider de una actividad o proyecto me gusta que las cosas se hagan exactamente como las he indicado y no permito alternativas en las que no esté de acuerdo	• 1	2	3	4	5		6
Me gusta que las personas sepan cuando soy líder en alguna actividad o proyecto	1	2	3	4	5		6
Me gusta encontrarme en un entorno seguro lejos de cualquier problema	1	2	3	4	5		6
Me preocupo por tener acceso a todo lo que necesito	1	2	3	4	5		6
Me preocupo por tener acceso a todo lo que creo que puedo necesitar en u futuro cercano	n 1	2	3	4	5		6
Me gusta ayudar a las personas por que se que cuando necesite algo m ayudarán	e 1	2	3	4	5		6
Trato de entablar y mantener buenas relaciones con personas que me puede ayudar si tengo algun problema	n 1	2	3	4	5		6
Intento tener un "extra" de dinero para cualquier imprevisto que se me presente	1	2	3	4	5		6
Me importa mantener buena relación y comunicación con mi familia (pareja padres, hermanos, hermanas	a, 1	2	3	4	5		6
Me importa mantener buena relación y comunicación con mis amigos	1	2	3	4	5		6
Me interesan los temas sociales, políticos o culturales que puedan afectar n entorno inmediato	ni 1	2	3	4	5		6
No realizo actividades que puedan afectar el balance de mi vida personal	1	2	3	4	5		6
No realizo actividades que puedan afectar el balance de la vida de las persona cercanas a mi (familia, pareja, amistades)	s 1	2	3	4	5		6

## The role of personal values in the entrepreneurial process

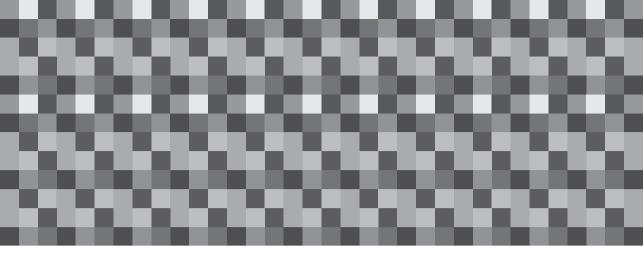
!								
Quiero iniciar un negocio para ganar dinero		1	2	3	4	5	6	
Prefiero iniciar un negocio propio por que ganaré más d empleado	inero que siendo	1	2	3	4	5	6	
Cuando reconozco una oportunidad de obtener diner pensarlo dos veces	ro la persigo sin	1	2	3	4	5	6	
No me importa sacrificar tiempo con mi familia o amigos	s para realizar							
una actividad y obtener mayor beneficio económico En caso de crear una empresa, mi principal interés	es que tenga el	1	2	3	4	5	6	
mayor crecimiento posible En caso de crear una empresa, mi principal interés es través de ella	enriquecerme a	1	2	3	4	5	6	
Sexo (V121)	🛛 Mujer	[	] Homb	re				
Año de nacimiento (V122)								
! Estudios que cursa actualmente!⊮⊮∞₀								
<b></b>								
!								
Año de carrera en el que tiene un mayor número	[] Primero							
de asignaturas matriculadas (en el caso de cursar licenciatura/grado) (V124)	Segundo Tercero							
!	☐ Cuarto □ Quinto							
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## Appendix II

Definitions of Types of Values and the Items that Represent and Measure Them

Appendix I	I: Definitions of Types of Values and the	ne Items that Represent and Measure
Them		
Type of value	Definition	Items in scales
Power	Social status and prestige, control or dominance over people and resources (social power, authority, wealth).	I like people to know when I am the leader of any activity or project When I am in charge of a project, I like things to be done in exactly the way indicate; I do not accept alternatives I do not agree with
Achievement (economic)	Personal success through demonstrating competence according to social standards (successful, ambitious, influential).	I want to work to make money I would start a business to make more money than I would get as an employee When I recognize an opportunity for making money, I go for it without any doubt
Stimulation	Stimulation: Excitement, novelty, and challenge in life (daring, a varied life, an exciting life).	Complex and hard tasks inspire me I feel satisfaction when I work to the limit of my capacities Hard work must be realized with enthusiasm rather than just following simple routines
Self-Direction (Self- transcendence)	Independent thought and action- choosing, creating, exploring (creativity, freedom, independent, curious, choosing own goals).	I always decide on my own what to do I establish my own goals and do not allow anyone to tell me what to do or where to go
Universalism (Self- transcendence)	Understanding, appreciation, tolerance and protection of the welfare of all people and of nature (broadminded, wisdom, social justice, equality, a world at peace, a world of beauty, unity with nature, protecting the environment)	am capable of changing my own procedures or rules to reach the common wealth     am interested in cultural, social and political topics related to my community
Benevolence	Preservation and enhancement of the welfare of people with whom one is in frequent personal contact (helpful, honest, forgiving, loyal, responsible).	care about my relationship and communication with my relatives (parents, couple, brothers, sisters, etc)     care about my relationship and communication with my friends
Security	Safety, harmony and stability of society, of relationships, and of self (family security, national security, social order, clean, reciprocation of favors).	I like to be in a secure atmosphere, away of any kind of trouble I prefer to perform my activities with security, avoiding risky situations.
Adapted from	m Bardi and Schwartz (2003)	



## Appendix III

Taxonomy of articles about knowledge in entrepreneurship 2000-2010

	Psychology	Management	Sociology	Economic	Approaches to entrepreneurship
	3, 17, 26, 31, 37, 44, 45, 47, 50, 69, 88, 127, 132, 141, 142, 143	16, 20, 21, 32, 38, 61, 62, 63, 70, 76, 77, 79, 92, 103, 105, 116, 119, 120, 121, 123, 124, 125, 129, 130, 140	33, 78, 139		6, 12, 27, 34, 41, 86, 90, 91, 96, 111, 113, 131, 134, 135
		24, 39, 40			25
	15, 23, 35, 101, 108	22, 42, 52, 55, 57, 64, 65, 68, 81, 84, 97, 136		48, 74	10, 28, 115
				138	
	13, 29, 46, 56, 58, 66, 75, 94, 98, 104, 106, 114, 126, 133	59, 60, 95	118		71, 112
	83				
	30, 36, 43, 53, 73, 128	2, 7, 100	1		107
	5, 51	11			
Ind 87	87				
Group					
Anowiedge transfer Org 14, 122	14, 122	19, 67, 72, 85, 110	4, 8	99, 137	54, 80
Int-org 9, 89, 109, 117	9, 89, 109, 117	18, 49, 82, 93		102	

The role of personal values in the entrepreneurial process

## Key to Figure 1.

1. Anderson and Jack (2002) 2. Collinson (2000) 3. Simon, Houghton and Aquino (2000) 4. George, Zahra and Wood (2002) 5. O'Gorman and Kautonen (2004) 6. Johnson (2000) 7. Kristiansen, Kimeme, Mbwambo and Wahid (2005) 8. Totterman and Sten (2005) 9. Biggeiro (2006) 10. Kuemmerle (2000) 11. Parrilli and Sacchetti (2008) 12. Lin, Picot and Compton (2000) 13. Minniti and Bygrave (2001) 14. Lockett, Cave, Kerr and Robinson (2009) 15. Kelley and Rice (2002) 16. Kundu and Katz (2003) 17. Parker (2006) 18. Waxell and Malmberg (2007) 19. Noronha Vaz and Nijkamp (2009) 20. Honig (2001a) 21. Honig (2001b) 22. Cowling and Taylor (2001) 23. Bierly and Daly (2007) 24. Friar and Meyer (2003) 25. West (2007) 26. Zacharakis and Shepherd (2001) 27. Nziramasanga and Lee (2001) Dew, Velamuri and Venkataraman (2004) 29. Ladzani and Van Vuuren (2002) 30. Harrison and Leitch (2005) 31. Hindle and Cutting (2002) 32. Lerner and Almor (2002) 33. Chaganti and Greene (2002) 34. Jones and Tullous (2002) 35. Sapienza, Parhankangas and Auti (2004) 36. Sapienza, De Clercq and Sandberg (2005) 37. Shepherd and Zacharackis (2003) 38. Davidsson and Honig (2003) 39. Lester, Certo, Dalton, Dalton, and Cannella (2006) 40. Watson, Stewart and BarNir (2003) 41. Van Praag (2003) 42. Stanworth, Stanworth, Watson, Purdy and Healeas (2004)43. Lumpkin and Lichtenstein (2005) 44. Dutta and Crossan (2005)

45. Baron and Ward, (2004) 46. Hindle (2004) 47. Ward (2004) 48. Baum and Silverman (2004) 49. Hervás-Oliver and Albors-Garrigós (2007) 50. Mitchell, Busenitz, Lant, McDougall, Morse and Smith (2004) 51. Schildt, Maula and Keil (2005) 52. Shepherd and DeTienne (2005) 53. Sternberg (2004) 54. Markmana, Phanb, Balkinc and Gianiodis (2005) 55. Arthurs and Busenitz (2006) 56. Williams and Chaston (2004) 57. Gormana, Rosab and Faseruk (2005) 58. Dutta and Thornhill (2008) 59. Henry, Hill and Leitch (2004) 60. Dakhli and De Clerg (2004) 61. Williams (2004) 62. Chrisman and McMullan (2004) 63. Peña (2004) 64. Newbert (2005) 65. Thornhill (2006) 66. Politis (2005) 67. Bosma, Van Praag, Thurik and Wit (2004) 68. Deeds, DeCarolis and Coombs (2000) 69. Corbett (2005) 70. Rauch, Frese and Utsch (2005) 71. Cope (2005) 72. Lorentzen (2008) 73. Tsang (2002) 74. Shepherd, Douglas and Shanley (2000) 75. Ravasi and Turati (2005) 76. Dimov and Shepherd (2005) 77. Westhead, Ucbasaran and Wright (2005a) 78. Westhead, Ucbasaran and Wright (2005b) 79. Ferrante (2005) 80. Shane (2002) 81. Junkunc (2007) 82. Hervás-Oliver and Albors-Garrigós (2008) 83. Van Gelderen, Thurik and Bosma (2005) 84. Åstebro and Bernhardt (2005) 85. Van Geenhuizen (2008) 86. Arenius and Minniti (2005) 87. Van Gelderen, Van der Sluis and Jansen (2005) 88.De Carolis and Saparito (2006) 89. Fang, Tsai and Lin (2010)

90. Kozan, Öksoy, and Özsoy (2006)

91. Kollinger and Minniti (2006) 92. Poon, Ainuddin and Junit (2006) 93. Atherton and Price (2008) 94. De Clercq and Arenius (2006) 95. Kim, Aldrich and Keister (2006) 96. Mueller (2006) 97. Sharder and Siegel (2007) 98. Souitaris, Zerbinati and Al-Laham (2007) 99. Huggins (2008) 100. Corbett, Neck and DeTienne (2007) 101. Wang (2008) 102. Audretsch, Bönte and Keilbach (2008) 103. Mosey and Wright (2007) 104. Corbett (2007) 105. Allen, Link and Rosembaum (2007) 106. Pittaway and Cope (2007) 107. Tolstoy (2009) 108. Krueger (2007) 109. Gilbert, McDougall and Audretsch (2008) 110. Audretsch and Lehmann (2006) 111. Hyytinen and Ilmakunnas (2007) 112. Katz (2008) 113. Vinogradov and Kolvereid (2007) 114. MacDonald, Assimakopoulos and Anderson (2007)115. Lee and Osteryoung (2004) 116. Marvel and Lumpkin (2007) 117. Beerepoot (2008) 118. Lee and Jones (2008) 119. Koellinger (2008) 120. Backes-Gellner and Werner (2007) 121. Ucbasaran, Westhead and Wright (2008) 122. Cegarra-Navarro and Wensley (2009) 123. Seawright, Mitchell and Smith (2008) 124. Moen, Sørheim, and Erikson (2008) 125. Arthurs, Busenitz, Hoskisson and Johnson (2009)126. Kickul, Gundry, Barbosa and Whitcanack (2009)127. Westhead, Ucbasaran and Wright (2009) 128. Chandler and Lyon (2009) 129. Fernández y Fuentes (2009) 130. West and Noel (2009) 131. Smith, Matthews and Schenkel (2009) 132. Haynie and Shepherd (2009) 133. Admiraal and Lockhorst (2009)

134. Gatewood, Brush, Carter, Greene and Hart (2009)
135. Thomas (2009)
136. Palacios, Gil and Garrigós (2009)
137. Acs, Braunerhjelm, Audretsch and Carlsson (2009)
138. Braunerhjelm, Acs, Audretsch and Carlsson (2010)
139. Bhagavatula, Elfring, Van Tilburg and Van de Bunt (2010)
140. Zarutskie (2010)
141. Foo (2010)
142. De Tienne and Cardon (2010)
143. Thompson, Evans and Kwong