

# From intention to entrepreneurial action

## Assessing the impact of the barriers on the creation of new organizations

António Oliveira and Orlando Lima Rua

*Polytechnic of Porto, Porto Accounting and Business School (ISCAP),  
CEOS.PP, CEI, UNIAG, Porto, Portugal*

Assessing the  
impact of the  
barriers

507

Received 18 November 2016  
Accepted 10 April 2018

### Abstract

**Purpose** – This paper aims to contribute to the explanatory debate of the entrepreneurial intention-action gap that results from the interposition of normative-regulatory, sociocultural and economic-financial barriers facing potential and intending entrepreneurs.

**Design/methodology/approach** – Grounded on post-positivist position, the authors propose a quantitative approach, surveying 569 potential and intending entrepreneurs from a longitudinal and stratified sample of 22 years.

**Findings** – The economic-financial barrier is the most important, followed by the sociocultural except in the period in which access to banking financial support is facilitated, where the order is reversed. The impact of the normative-regulatory barrier is statistically relevant, but irrelevant on the magnitude. The results also allow us to conclude that a lower development of the project accentuates the entrepreneurial intention-action gap and, finally, support the existence of a medium/long-term temporal relation between entrepreneurial intention and entrepreneurial action.

**Research limitations/implications** – From an empirical standpoint, the sample was limited to potential and pretending entrepreneurs from one national institution and one country. This limits the scope of generalization. Further studies in multiple contexts should be undertaken.

**Practical implications** – The study points to contradictory results with the Global Entrepreneurship Monitor – Portuguese Reports, which, if confirmed, require the reformulation of Portuguese national policies in the promotion and development of entrepreneurial activities.

**Originality/value** – The study is novel by providing new insights about entrepreneurship and the entrepreneurial intention-action gap.

**Keyword** Entrepreneurial intention

**Paper type** Research paper

### Introduction

The studies of the process that takes place between entrepreneurial intention and entrepreneurial action in the context of the creation of new organizations – entrepreneurial intention-action gap, are a relatively recent field of study (Goethner *et al.*, 2012; Kautonen *et al.*, 2015; Pruett *et al.*, 2009; van Gelderen *et al.*, 2015).



© António Oliveira and Orlando Lima Rua. Published in *RAUSP Management Journal*. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at <http://creativecommons.org/licenses/by/4.0/legalcode>

RAUSP Management Journal  
Vol. 53 No. 4, 2018  
pp. 507-534  
Emerald Publishing Limited  
2531-0488  
DOI 10.1108/RAUSP-07-2018-0039

According to the literature (Elfving *et al.*, 2009; Liñán and Fayolle, 2015), all the theoretical models assume that entrepreneurial intention is, directly or indirectly, the origin of entrepreneurial action, although not always does an intention originate an action (Townsend *et al.*, 2010). This apparent conflict does not exist if the action is deliberately postponed, if new restrictions arise, or if individual preferences change (Gollwitzer and Sheeran, 2006). In any other circumstances, lack of action means that a valid intention is not accomplished (van Gelderen *et al.*, 2015; Wilson and Martin, 2015).

Our aim is to identify and evaluate the conditioning effect of the normative-regulatory, sociocultural and economic-financial barriers that are interposed between entrepreneurial intention and entrepreneurial action. In other words, we propose to study entrepreneurial intention-action gap that stems from barriers that interfere with the entrepreneurial process (Kautonen *et al.*, 2015; Schlaegel and Koenig, 2014).

We adopt a post-positivist approach (Creswell, 2009). By merging three theoretical perspectives:

- (1) goal-directed behaviour;
- (2) rubicon model; and
- (3) concept of turning points, we propose the accomplishment process as conceptual starting model.

Then, we analyse the problematic regarding the classification, characterization, definition and impact of the barriers.

From this theoretical framework emerges the research hypothesis, tested from a sample of Portuguese Nacional Young Entrepreneur Association (ANJE) database registers. From a universe of 569 individuals, we collected a longitudinal sample of 22 years (from 1985 to 2006), composed of 323 entrepreneur candidates divided between intending entrepreneurs and potential entrepreneurs. We adopted a quantitative methodological approach using techniques of descriptive and inferential statistics.

After the analysis and discussion of the results, we present the conclusion, theoretical and practical implications, limitations and future lines of research.

### Literature review

The definition of entrepreneurship, regardless of the author or approach, refers to the act of creation (Bird and Schjoedt, 2009). Entrepreneurship is associated with the creation of a new organization (Gartner, 1985, 1989), and the entrepreneur is the agent of this creative act (Bird and Schjoedt, 2009; Carland *et al.*, 1984, 1988), distinct from any other creative act because it underlies the ability to exploit the social, economic and/or cultural value of the idea that is in its origin (Martin, 1982; Martin *et al.*, 2013). We can talk about entrepreneurship whenever one of the following conditions is fulfilled: creation of a new organization; creation of a new revenue centre in a pre-existing organization or creation of a joint venture that results from a process of acquisition of new skills (Gartner, 1985). But entrepreneurship is also a process of multidimensional interaction that evolves over time within a specific and dynamic context (Audretsch, 2012).

The relation between the entrepreneurial individual, entrepreneurial intention and entrepreneurial action is widely demonstrated in literature (Elfving *et al.*, 2009; Gielnik *et al.*, 2015; Krueger *et al.*, 2000; Liñán and Fayolle, 2015). But to understand what promotes or inhibits the creation of a new organization (entrepreneurial action) requires a comprehension of how the entrepreneurial individual apprehends and perceives the opportunity to achieve it, being that, the perception of this opportunity is a process based on entrepreneurial

intention (do Paço *et al.*, 2015; Elfving *et al.*, 2009; Krueger, 2009; Krueger *et al.*, 2000; Joensuu-Salo *et al.*, 2015; Liñán and Fayolle, 2015; Rauch and Hulsink, 2015).

Our central question is that entrepreneurial intention does not always lead to entrepreneurial action (Wilson and Martin, 2015). Many individuals formulate entrepreneurial intention, but only a few are able to carry out the action that effectively enables the creation of a new organization (Blanchflower *et al.*, 2001; Grilo and Irigoyen, 2006; Townsend *et al.*, 2010; van Gelderen *et al.*, 2015; Wilson and Martin, 2015). The delimitation of our work corresponds to situations in which entrepreneurial action is unfeasible as a consequence of the interposition of normative-regulatory, socio-cultural and/or economic-financial barriers (van Gelderen *et al.*, 2015). In these cases, the absence of entrepreneurial action – entrepreneurial gap – means that potentially valid entrepreneurial intentions are not accomplished (van Gelderen *et al.*, 2015; Wilson and Martin, 2015) and therefore economic and social development and growth are blocked at local, regional and national levels (Gielnik *et al.*, 2015; Kew *et al.*, 2013; Martins *et al.*, 2004; van Gelderen *et al.*, 2015).

In summary, these are the reasons for conducting this study (Carsrud and Brännback, 2011; Kautonen *et al.*, 2015; Kouriloff, 2000; Sequeira *et al.*, 2007; Schlaegel and Koenig, 2014).

#### *From entrepreneurial intention to entrepreneurial action*

Theoretically, all the explanatory models of entrepreneurial intention assume that entrepreneurial action is a process determined by entrepreneurial intention (Elfving *et al.*, 2009; Krueger *et al.*, 2000; Joensuu-Salo *et al.*, 2015; Liñán and Fayolle, 2015; Rauch and Hulsink, 2015; van Gelderen *et al.*, 2015). Different authors modelled this process in different forms. Shapero and Sokol (1982) and Krueger *et al.* (2000) propose a four-phase sequential model:

- (1) intention to initiate the process;
- (2) recognition of the opportunity;
- (3) preparation; and
- (4) implementation of the opportunity.

Shane and Venkataraman (2000) consider a three-phase model:

- (1) recognition of the opportunity;
- (2) operational planning; and
- (3) implementation of the opportunity.

Gartner (1989) and Audretsch (2012) consider a four-dimension cognitive process to “identifying the entrepreneurial opportunity along with the decision to start a new firm” (Audretsch, 2012, p. 762):

- individual’s sense of competence – the trait approach;
- environmental;
- organizational – the understanding that entrepreneurship is so much what the individual is as what he does; and
- procedural, that evolve and interact over time, within a specific and dynamic context.

But regardless of the model, the decision to create an organization is not a random impulse, it is a medium to long-term achievement process (Heckhausen, 2007; Krueger, 2000, 2009). It

takes time to reach the objective, and during that time, the individual deals not only with their daily tasks but also with all other personal goals. Therefore, stages of deep involvement are alternated with others of apparent abandonment, and the real personal challenge is to be able to maintain commitment. Most importantly is to be able to adjust the process, integrating and combining external and internal factors with the main objective, perceived that they also change throughout the time (Achtziger and Gollwitzer, 2007; Brandtstädter, 2009; Elfving *et al.*, 2009; Heckhausen, 2007; Heckhausen and Gollwitzer, 1987).

Our theoretical proposal emerges from three previous research approaches:

- (1) goal-directed behaviour;
- (2) rubicon model; and
- (3) concept of turning points, which more than alternatives, are complementary and integrable into a single process that we named as accomplishment process.

We define the accomplishment process as a dynamic process which begins with the goal-directed behaviour approach, pursues with Rubicon Model and is completed by turning points concepts as follows. The objectives establish the connection between intention and action, as defined by Bagozzi *et al.* (1989) and Bagozzi and Warshaw (1990) relatively to the goal-directed behaviour and according to Krueger's (1993) approach. This linkage should be analysed in four levels (Bandura, 2001, 2006). First, the objectives have a guiding role (Elfving, 2008), that is, individual attention and effort are directed to the relevant activities, which are defined according to the objective that is intended to be achieved. Second, the greater the challenge, the greater the commitment and effort to achieve it (Liñán and Fayolle, 2015), and therefore, as each objective is fulfilled, the self-efficacy perception increases which further increases the challenge (Bandura, 2006; Elfving, 2008). Third, objectives influence the persistence required to accomplish the task (Bandura, 2001, 2006). Finally, they can lead to the wakening of new strategies that make possible its effective implementation (Bagozzi *et al.*, 1989; Bagozzi and Warshaw, 1990).

The accomplishment process, similarly to the goal-directed behaviour, involves evaluations, emotional reactions, motivational reactions and persistence, distinguishing two types of persistence. The persistence that exists initially to materialize the intention and the persistence that exists later to materialize the objective (Bagozzi *et al.*, 1989; Bagozzi and Warshaw, 1990).

Likewise, the behaviour that enables the materialization of the intention can be decomposed into intentional behaviour and the antecedent expectable behaviour. Consequently, it makes it possible to distinguish in the concept of entrepreneurial intention "between goal intent – they intend to begin the process; and implementation intent – they intend to actually get the venture launched" (Krueger, 2009, p. 61), question detailed and developed in the Rubicon Model.

According to the Rubicon model, the individual by influence of the will begins to process the information that favours the chosen objective and not any other possible alternative, that is, the motivation conditions the volitional behaviour. In other words, motivation is defined in terms of the reason, volition is defined in terms of commitment (Brandtstädter, 2009; Heckhausen, 2007; Heckhausen and Gollwitzer, 1987) to achieve the goal.

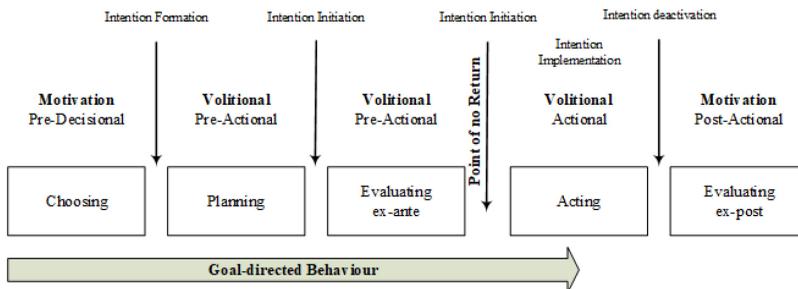
These two theoretical concepts, although related, are distinct (Achtziger and Gollwitzer, 2007; Heckhausen, 2007). The first is based on the motivational process of decision-making in relation to a concrete objective, taking into account the alternatives. The second involves volitional behaviour that guarantees commitment to the decision made, thus ensuring the

materialization of intention. According to [Ajzen et al. \(2009\)](#), intention is only materialized by individual commitment.

The Rubicon Model reflects this operating structure, systematizing the decision-making process in a four-step sequence from the formation of intention to the implementation: selecting/choosing, planning, acting and evaluating ([Heckhausen, 2007](#); [Heckhausen and Gollwitzer, 1987](#)). The first stage corresponds to the selection of the objective to be achieved, based on the evaluation of alternative objectives and the possible consequences of the choice ([Achtziger and Gollwitzer, 2007](#); [van Gelderen et al., 2015](#)) as proposed by the goal-directed behaviour. The second stage corresponds to the planning process, not only of the necessary resources but also of the hierarchy of the procedures that allow its execution ([Heckhausen, 2007](#)). The third stage is effective action ([Brandtstädter, 2009](#); [Heckhausen, 2007](#)). The fourth and last stage corresponds to the evaluation process, that is, to determine to what extent the result of the developed action coincides with the defined objective ([Brandtstädter, 2009](#); [Heckhausen, 2007](#); [van Gelderen et al., 2015](#)). As can be seen, at this stage, there is also a coincidence with what is proposed by the goal-directed behaviour: the first and the fourth stages are motivational, the second and the third are volitional. For the authors, the transition from the first to the second stage is the most important of the decisions, “the most important barrier” ([Heckhausen, 2007](#), p. 171).

We argue that it is necessary to consider two different evaluations. An ex-ante evaluation and an ex-post evaluation and, consequently, to define the transition moment from the third to the fourth stage. It is the transition from the third to the fourth stage that distinguishes intention to act from action (the Point of no Return) ([Figure 1](#)).

The ex-post evaluation coincides with what is proposed in the Rubicon Model. The ex-ante evaluation corresponds to the introduction of a new stage that precedes the action and stems from the process of planning and hierarchizing procedures that structure the evaluation. In our opinion the intention to create an organization is not enough, ex-ante evaluation is essential to understand if the option is feasible, acceptable and adjusted, in a process of multidimensional interaction that evolves over time ([Audretsch, 2012](#)) conditioned by the defined objective ([Heckhausen, 2007](#); [van Gelderen et al., 2015](#)). In [Kew et al.’s \(2013\)](#) words, the individual may not even consider trying, either because he/she assumes *a priori* that this is not a valid option, or because he/she consciously refrains from doing so ([Bagozzi et al., 1989](#); [Bagozzi and Warshaw, 1990](#)). After having decided that it will advance, he/she advances and only barriers will make the concretization of the intention impossible ([van Gelderen et al., 2015](#)), being that this irrevocable character of the decision is, by definition, a Point of Return ([Abbott, 2001](#); [Turcan, 2013](#)).



Source: Own elaboration adapted from Heckhausen (2007, p. 167)

Figure 1.  
Accomplishment  
process

Inherent in the point of no-return approach are two defining moments: the before and after. Therefore, it is fundamental to perceive the behaviours that occur between the two moments, to realize that the trajectory hitherto followed has changed, towards and/or in nature (Turcan, 2013; van Gelderen *et al.*, 2015).

According to the authors, with the passage of time, the probability of withdrawal decreases, as the greater the involvement and the individual commitment, the lower the probability of giving up according to the inverted relationship between agility and entrapment. Agility is defined in terms of flexibility in decision-making, which in turn depends on the flexibility of the financial and non-financial structural costs needed to develop the intention. Entrapment is defined in function of the degree of involvement in lateral activities that may undermine intention. For Turcan (2013), it is the barriers that provoke the entrapment that makes entrepreneurial behaviour unfeasible.

From this framework emerges the justification of this study. The Accomplishment Process is conditioned by the barriers that stand between the entrepreneurial intention and the entrepreneurial action which ultimately makes the implementation of potentially valid entrepreneurial intentions impossible.

*Barriers' classification.* Different academic and institutional studies deal with the problematic of the classification of the barriers that interpose between the entrepreneurial intention and the entrepreneurial action (Gnyawali and Fogel, 1994; Kew *et al.*, 2013; Klapper *et al.*, 2006; Kouriloff, 2000; Martins *et al.*, 2004; Rauch and Hulsink, 2015; Schoof, 2006). Due to its relevance, we adopted the classification proposed by Martins *et al.* (2004) for the European Commission, in which barriers are divided into three groups: normative-regulatory, socio-cultural and economic-financial. This classification arises from the studies of Gnyawali and Fogel (1994) and Kouriloff (2000).

Gnyawali and Fogel (1994) structure barriers in the five dimensions that the authors recognize as determinants in the development of entrepreneurship. They note that “while a growing body of literature exists on entrepreneurial environments, the literature is highly fragmented” (Gnyawali and Fogel, 1994, p. 43). They further noted that these studies did not fit or respond to what they considered to be the needs of entrepreneurial individuals and, above all, did not describe barriers in terms of the process of creating new organizations. Thus, in addition to an integrated conceptual structure, they established and explained the relationships between each of the five dimensions and the fundamental elements of the creation process, developing a model that “link this framework to the process of new venture creation” (Gnyawali and Fogel, 1994, p. 45). The five defined dimensions are:

- (1) governmental policies and procedures;
- (2) social and economic conditions;
- (3) entrepreneurial skills and techniques;
- (4) financial support; and
- (5) non-financial technical support.

For each of the defined dimensions were associated different barriers respecting their intrinsic nature. The possibility of unfolding in one or more levels is guaranteed, whenever a more detailed study is necessary, as adopted in Martins *et al.* (2004).

Following in Gnyawali and Fogel's (1994) research stream, Kouriloff (2000), based on the literature review, identifies and evaluates 150 barriers, a number that initially reduces to 46 and then to 28. It justifies such reduction because of redundant barriers or over-focus, in the author's words “a tendency to focus on specific problems by groups closer” (*ibidem*, p. 69).

To Gnyawali and Fogel's (1994) classification adds a higher level of aggregation, defining visible barriers and invisible barriers. The visible barriers were grouped into three classes: political-economic; sociocultural and psychological, a grouping that corresponds to the first three dimensions of Gnyawali and Fogel (1994). Invisible barriers are defined as "vague or difficult to define" (*ibidem*, p. 62), including, among others, financing, banking support, government inconsistency and gender discrimination.

Martins's *et al.* (2004) classification maintains the structure of sociocultural barriers, which incorporate personal issues (psychological barriers). The structure of political-economic barriers, compared to Kouriloff's (2000) proposal, is subdivided into two groups, normative-regulatory barriers and economic-financial barriers, but according to Gnyawali and Fogel's (1994) initial proposal.

The wide use of this classification (Klapper *et al.*, 2006; Kew *et al.*, 2013; Rauch and Hulsink, 2015; Schoof, 2006) is justified by the fact that it has been validated, allows systematic comparisons (Kouriloff, 2000) and allows more or less aggregation according to the research objectives (Klapper *et al.*, 2006; Schoof, 2006), which is why we also adopt it.

*Definition of the barriers and research hypotheses.* The normative-regulatory barriers correspond to the administrative burdens for the establishment of a new organization. They include the administrative procedures, the licenses and the permissions, that, in accordance with Klapper *et al.* (2006), tend to discriminate new organizations. The calculation, or determination of these charges, must be done not only in terms of financial costs but mainly, in terms of deadlines and time expended for its attainment. Klapper *et al.* (2006) designate this barrier as bureaucratically costs, which not only discriminate, limit and condition the creation of new organizations, but also condition the growth and development of the ones that manage to enter. From this foundation emerges the first research hypothesis:

- H1. The existence of normative-regulatory barriers limits the creation of a new organization.

Socio-cultural barriers include insufficient institutional support to promote entrepreneurial culture, insufficient human support infrastructures, insufficiency of knowledge and appropriate skills (Robertson *et al.*, 2003; Martins *et al.*, 2004; Kew *et al.*, 2013). For the authors and Schoof (2006), overcoming these barriers goes beyond the promotion of an entrepreneurial education. It is necessary to institutionally promote entrepreneurial education simultaneously with the development of government policies that promote understanding the rewards and the benefits of entrepreneurial behaviour, reducing the stigma of failure and encouraging new ventures. Also, according to Fiet (2001a), the promotion of the entrepreneurial culture must be institutionally ensured and based on a training process that ensures the acquisition of skills in terms of motivation, risk taking and knowledge. Other authors (Fiet, 2001a,b; Frese, 2009; Neck and Greene, 2011; Gielnik *et al.*, 2014) consider that both the activities developed and the pedagogical methods used in the process of training entrepreneurial behaviour influence the objective of promoting entrepreneurial action.

Edelman *et al.* (2008) emphasize the importance of the relevance concept, arguing that relevant activities should be developed, which justifies Gielnik's *et al.* (2014) distinction between business plans and action plans. While the first is a prospective document based on presumed events that describe and demonstrate the how and why of business viability (Honig and Karlsson, 2004; Karlsson and Honig, 2009), the second corresponds to formulations that specify the different steps and operational procedures that make it possible to achieve the goal (Gielnik *et al.*, 2014, 2015).

Along the same reasoning stream, [Frese \(2009\)](#) demonstrates that a learning-by-doing process increases the likelihood of creating a new organization. While [Kessler and Frank \(2009\)](#) empirically demonstrate that trainees who engage more actively in entrepreneurial processes are more likely to effectively create a new organization.

Some authors ([Carter et al., 1996](#); [Lichtenstein et al., 2007](#); [van Gelderen et al., 2015](#)) also demonstrate that individuals who complete the start-up training process generally advance more (did create the organization) than those who remain in the formal and exploratory stage, which, too, conforms to all models that describe the transitional behaviours of entrepreneurial intent for entrepreneurial action. From this explanation, the second research hypothesis emerges:

*H2.* The smaller involvement and development in the project limits the creation of a new organization.

Finally, [van Gelderen et al. \(2015\)](#) draw attention to the personal reasons associated with sociocultural barriers. Its origin is based on the individual perception of the impossibility of realizing the new organization. In other words, the ex-ante evaluation emerges from the assumption that the creation of the new organization is not a valid option, even if this is not rationally justified. [Kew et al. \(2013\)](#) refer to it as the barrier of fear. This is a particularly important barrier because failure has serious legal and social consequences. Fear of failure will thus inhibit the realization of entrepreneurial intention ([Kessler and Frank, 2009](#); [Kew et al., 2013](#)), or in the previously mentioned words of [Bagozzi et al. \(1989\)](#), the individual may not even try, which leads us to the formulation of the third research hypothesis:

*H3.* The assumption of personal limitations and/or possibilities limits the creation of a new organization.

Theoretically economic-financial barriers are subdivided in economic and financial. The first ones cover not only the external and internal environmental constraints but also the unique availability of strategic resources and capabilities of project promoters. With the development of the project, the barrier tends to vanish ([Schoof, 2006](#)). The second ones are associated with the capital funding processes, whether in the initial phase, *start-up capital* or *seed capital*, or in the medium- and long-term financing, *capital structure composition* ([Edelman et al., 2008](#); [Kew et al., 2013](#); [Rotefoss and Kolvereid, 2005](#)). They tend to be the most important barrier between entrepreneurial intention and entrepreneurial action ([Kew et al., 2013](#); [Martins et al., 2004](#); [Robertson et al., 2003](#)) because it discriminates not only the availability of financial resources but also the availability of access to those resources ([Edelman et al., 2008](#); [Rotefoss and Kolvereid, 2005](#)). In other words, even when capital markets are efficient for established organizations, new organizations are discriminated against by the requirement of real guarantees, that in practice hinder its financing, “even relatively modest sums of risk capital, specially for innovative high-technology small firms and for businesses operating in disadvantage areas for relatively modest amounts of risk capital” ([Martins et al., 2004](#), p. 20). Venture capital or business angel funds also have not been able to overcome this problem, as “there is anecdotal evidence to suggest that the largest sources of start-up funding for young entrepreneurs are personal savings/assets, foregoing salaries and money from friends and family (either loans or donations)” ([Schoof, 2006](#), p. 45). For [Kessler and Frank \(2009\)](#), the financial investments in the process of creating a new organization is point of no return. From these arguments, we formulate the last research hypotheses:

H4. The reduced availability of financial resources limits the creation of a new organization.

H5. The lower easiness of access to financial resources limits the creation of a new organization.

Next, we present and characterize the empirical methodological procedures that allow us to test the formulated hypotheses.

## Methodology

### *Sample and procedures*

Our population is defined by the set of entrepreneurs candidates registered in the ANJE database. We considered all the 569 individuals enrolled in entrepreneurship training courses promoted by the association itself, or in partnership with other entities, such as the Portuguese National Support Institute to small and medium-sized enterprises (IAPMEI).

Portuguese National Support Institute to Small and Medium-sized Enterprises (IAPMEI), Portuguese National Institute of Employment and Professional Training (IEFP) and also with different banks and financial institutions. Due to the close relationship with Espaço Atlântico, we also included all the participants in the JEEP[1] programmes, although not all of them are included in ANJE's database.

The sample was collected following a defined set of questions. All questions were asked systematically and consistently to each participant. Below presents the characterization of the sample:

- (1) Population – ANJE entrepreneur trainee's:
  - Dimension – 569 individuals:
    - Group 1 – 254 individuals (44.64 per cent of population).
    - Group 2 – 315 individuals (55.36 per cent of population).
- (2) Sample – Non-probabilistic and convenient:
  - Dimension – 569 individuals:
    - Group 1 – 136 individuals (42.11 per cent of sample).
    - Group 2 – 187 individuals (57.89 per cent of sample).
- (3) Response rate – 56.77 per cent:
  - Group 1 – 53.54 per cent.
  - Group 2 – 59.37 per cent.

*Source:* Own elaboration.

From a technical point of view, the sample results from a convenient sampling technique. It only meets the strictly random criteria, as it is conditioned by the non-randomness of the selected population (Marôco, 2007).

### *Instrument and measure*

The used instrument was the survey by questionnaire, considering that this method is one of the most suitable not only for our type of research (Sousa *et al.*, 2008), but because there was a need to interview a substantial and representative number of individuals (Campenhoudt and Quivy, 2008).

In order to ensure the accuracy and adequacy of the questionnaire it was performed a random semi structuralized telephone interview to 30 individuals of each group (Martins *et al.*, 2004). The interviewers were given total freedom, aiming to obtain the real answer to each of the questions. Respecting the basic principles that guarantee “the validity, the

confidence and the commitment of the interviewed” (Creswell, 2009, p. 170), it was established a verifiable bond of legitimacy that, obligatorily, functioned in both directions. Then, it was highlighted the importance of the participation in the interview as something essential for the accomplishment of the study. The materially relevant information was registered (Berg, 2009), ensuring by data triangulation the value of each proposal. The triangulation proceedings contemplate distinct practical and theoretical methodology (Denzin, 1978; Janesick, 1994). This set of procedures was subsequently adopted in the data collection.

The final questionnaire is composed by six closed-ended questions (Table I). According to Fink (1995), closed-ended questions provide standard information that allows statistical treatment and facilitates the answer to the respondent.

The questionnaire responses are expressed in a nominal scale, and each item was identified by the attribution of a name that assigns the class. According to Marôco (2007), the defined classes are collective exhaustive, mutually exclusive and non-orderly, which means that there is, or can be established, any relation of order.

*Pre-test.* The questionnaire was submitted to a pre-test, among scholars and the previously interviewed individuals to assure the insistence of difficulties and/or misinterpretation and with the aim of reducing non-responses (Monteiro, 2013). During the pre-test, no variables were manipulated, and all data were collected at the same time (Bryman and Cramer, 2012). In the course of this procedure, no problem or difficulty was found.

*Data search and operationalization*

The data collection occurred throughout three distinct periods: first period – from April to May of 2009; second period – from April to May of 2012 and; third period – from April to

Variables	Scales
<i>Group</i>	0 – Group 1 1 – Group 2
<i>Organization’s creation</i>	0 – Did not create 1 – Did create
<i>Barriers</i>	0 – Did create 1 – Normative-regulatory 2 – Financial 3 – Personal
<i>Time for creation</i>	0 – Did not create 1 – Up to 6 months 2 – From 6 months till 1 year 3 – From 1 year till 2 years 4 – More than 2 years
<i>Financial source</i>	0 – Did not create 1 – Equity capitals 2 – Equity capitals and Public support 3 – Equity capitals and bank loans 4 – Equity capitals, Public support and bank loans
<i>Banking financial support</i>	0 – Do not exist 1 – Exist

**Table I.**

Measurement scales

**Source:** Own elaboration based on Martins *et al.* (2004)

---

May of 2015. This allowed us to do a regular monitoring of the work carried out by the emerging entrepreneurs and business evolution. It also allowed the development of this study according to the temporal evolution of the two homogeneous groups below characterized, with the advantage of providing a context for the understanding of the results (Carter and Hurtado, 2007).

The period in analysis is a time series of 22 years, between the date of the first edition of the JEEP and the date of conclusion of the last edition of the Advanced Course of Entrepreneurship and Business Creation (PAECE)[2].

The collected data were split according to homogeneity criteria.

The first splitting criterion corresponds to differences concerning the period. We defined one period between 1985 and 2006 because in this period ANJE's model to develop and promote entrepreneurship was based on educational and training processes. It corresponded to a homogeneous period that guaranteed the comparability of data (Bernard, 2011; Marôco, 2007).

From 2007 to 2009, due to the generalization, mainly in the higher education, of curricular units associated to entrepreneurship, ANJE adopts the entrepreneurial process defined by Nueno (2001) as "social network" and creates the Entrepreneurs' Academy. Still with the objective to develop and promote entrepreneurship, Entrepreneurs Academy developed road shows, business idea competitions, mentoring and business incubation. Therefore, comparability was no longer guaranteed.

The second splitting criterion is justified by the differences that are defined in the access rules of the different courses. We consider that the population is naturally divided in two homogeneous groups as follows.

Group 1 is composed of participants who already have a concrete project to create an organization. According to Kouriloff's (2000) classification, they can be defined as intending entrepreneurs, that is, individuals who assume a relevant intention to create a new organization. Group 1 corresponds to JEEP and PEACE participants. In these courses, the selection process happened according to a sequential model of five stages: analysis of the proposed project by consultants and/or trainers associated to the course; interview to the candidate that made possible to validate the entrepreneurial intention; formal and public presentation of the project; training and mentoring process; and customized consulting and technical assistance from which should be stressed the monitoring and the promotion of the necessary negotiations between the participants, associated institutions and banking institutions, with the objective of assuring the institutional and financial supports that allow the accomplishment of the developed projects.

Group 2 is composed of participants who did not have a concrete project to create an organization. According to Kouriloff's (2000) classification, they can be defined as potential entrepreneurs, that is, individuals who have preparation but do not have relevant intention to create a new organization. Group 2 corresponds to the participants of all other ANJE's entrepreneurship courses. In this case, the selection process happened according to a sequential model of two stages:

- (1) interview to the candidate that allowed to validate the entrepreneurial intention; and
- (2) formal and public presentation of the project, in which the candidate, obligatorily referred, what he wanted, why he wanted it and what he had already done to accomplish such desire, that is, identification of the business opportunity and its evaluation.

From this analysis emerges the first relevant characteristic of the sample: the validation of the previous entrepreneurial intention. We can assume that all the participants express

intention to act (Krueger *et al.*, 2000; Elfving *et al.*, 2009; Liñán and Fayolle, 2015) and, therefore, if they do not accomplish this volitional desire, it is because there are barriers that are preventing it.

This subdivision also allows us to test *H2*, that is, on average, it is expected that the individuals of Group 1 will create more organizations than the individuals of Group 2.

The third splitting criterion emerges from the alteration on political guidelines and priorities. Portuguese public, governmental and institutional support, to the development and promotion of entrepreneurship and business creation was not also homogeneous during the analysed period. According to GEM (2013) Portugal Report[3], we found two distinct periods: from 1983 until the end of 2000 and from 2001 to the present time (2017).

The first period is in turn subdivided in two, from 1983 until the end of 1996 and from 1997 to 2000.

Between 1983 and 1996, the different available institutional supports did not discriminate the different promoters or organizations.

Between 1997 and 2000, being recognized “the specificities of the support to creation, expansion and modernization of organizations belonging to young adults” (DL 22/97, of 23 of January) was created the System of Support to Young Entrepreneurs (SAJE), with the objective to support and to promote “projects that aim the creation, expansion and modernization of organizations withheld by young adult entrepreneurs” and “that answers with greater efficiency to the verified requests” (DL 22/97, of 23 of January). The programme covered up to 50 per cent of equity needs, increased to 60 per cent if the new organization was located in a disadvantaged region. This value increased 10 per cent, in case of the promoter being unemployed or searching for a job (Schoof, 2006). In the scope of the programme, there were also contemplated support measures to the attainment of banking financing, namely, the provision of bank guarantees until a maximum sum of €50,000 of financing and subsidized loan rates. The granted financial support in the form of non-refundable subsidies associated to the new jobs creation was a support feature exclusively developed and applied in Portugal (Curtain, 2000). The financial amount was calculated facing the number of new jobs created, multiplied by a value equivalent up to 12 national minimum wages and a maximum of 250 new workers. These values increase between 1.7 and 1.5 per cent in the value of the national minimum wage, if the new job being held by a 1st job young adult, by an unemployed or by a women (OECD, 2001).

We define the second period between 2001 and present time (2017). By Ministers Council Resolution (120/2000, of 25 of September), it was created the SAJE 2000 that imposes the non-participation in the equity capital and ceases to include measures of support to the attainment of banking loans. These guidelines prevailed in the mid-term review of 2004; in the National Strategic Framework (QREN) in force from 2007 to 2013, and, finally; in the National Strategic Framework (Portugal 2020) in force from 2014 to 2020.

Grounded on this evidences, we can therefore conclude that between 2001 and the present time, it was hindered the access to the necessary financial resources to the creation of new organizations and, therefore, test *H5*.

The last distinctive feature is related with the provided training process. In literature, we can verify that training activity (Carter *et al.*, 1996; Frese *et al.*, 2012) and pedagogical methods enhance or restrict entrepreneurial intention (Fiet, 2001a,b; Neck and Greene, 2011; Gielnik *et al.*, 2015). That would present, not only, a problem regarding the object of this study, but also, bias in the analysis. However, that does not happen, because the training provided in all ANJE's courses that compose our database, have identical characteristics:

- the theoretical component of the formative activity was focussed in what must be done (Fiet, 2001b) and in the theoretical ground of the different forms to accomplish

different alternatives of development as defined by Raabe *et al.* (2007). The participants do not learn abstract theoretical concepts but alternative theoretical concepts that allow them to create a new organization; and

- the practical component was centred in the trainee, and is based on real-life data, real projections and it includes obligatorily the analysis of alternative sceneries rather than the attainment of technical financial profitability.

The training process met all evaluation criteria defined by financial and official institutions. Therefore, it corresponds to a methodology of practical education based and developed in learn by doing (Edelman *et al.*, 2008) that Rasmussen and Sørheim (2006) define as, training in action. The goal was to create a real and concrete business plan: the action plan that made possible to create a new business and not just a theoretical business illustration. Barr *et al.* (2009) demonstrate that this practice is particularly efficient in the promotion of the entrepreneurial action. We must reinforce that, theoretically, action plans and business plans are distinct concepts. Business plans are written documents that describe the economic viability of a business concept, while action plans are simulations of real actions that specify the sub-stages (what), operational details (how) and time for execution (when) to accomplish the goal (Honig and Karlsson, 2004).

In the next point, we present the analysis and discussion of the results. We use chi-squared automatic interaction detector (CHAID) statistic method, computed in software SPSS v.22. The CHAID method allows the analysis in decision tree (Perreault and Barksdale, 1980), that is, the probability of a specific observation belonging to a certain group, being that, the group is defined a priori, in accordance with the previously expressed criteria of classification and having into account the procedures of applicability defined by Magidson (2005) and Magidson and Vermunt (2005).

## Analysis and discussion of results

### *Reliability*

The reliability evaluation was done using the coefficient Cronbach's alpha (Table II). All the values obtained are classified as good (bigger than 0.8), in accordance with the established criteria for reference values, although "the alpha of Cronbach gives an underestimation of the true reliability of the measure because the items of the scale are heterogeneous, dichotomous or define multifactorial structures" (Marôco and Garcia-Marques, 2006, p. 27).

### *Correlations*

According to Bryman and Cramer (2005), the correlation coefficient measures the strength and direction of a linear relationship between two variables (Table III). The results allow us to conclude that all variables are correlated as expected (Brännback *et al.*, 2007; Elfving *et al.*, 2009), and the relationship varies between very strong and moderate. All values are statistically significant.

We must highlight the value that indicates a very strong and reverse relationship between the variable associated with creation and the variable associated with Barriers ( $-0.953$ ), as well as the value that indicates a very strong and direct relationship between the variable associated with creation and the variable associated with the Time Necessary to Create ( $0.928$ ). Between the variable associated with Barriers and the variables associated with Time Necessary to Create and with Form of Financing, the values indicate a strong and reverse relationship ( $-0.885$  and  $-0.818$ , respectively). Finally, between the variable associated with creation and the variable associated with Financial Source, we also have values that indicate a strong and direct relationship ( $0.858$ ).

RAUSP  
53,4

Variables	$\alpha$	Assessment
<i>Sample (4 explanatory variables)</i>		
Organization created/not created		
Banking financial support		
Time for creation		
Financial source	0.851	Good
<i>Group 1 (4 explanatory variables)</i>		
Organization created/not created		
Banking financial support		
Time for creation		
Financial source	0.822	Good
<i>Group 2 (3 explanatory variables)<sup>a</sup></i>		
Organization created/not created		
Time for creation		
Financial source	0.860	Good

520

**Table II.**  
Cronbach's alpha

**Note:** <sup>a</sup>The values obtained for the variable Banking Financial Support are all the same, which makes it impossible to estimate their variability (Marôco and Garcia-Marques, 2006)  
**Source:** Own elaboration

Variables	1.	2.	3.	4.	5.	6.
<i>1. Created/not created</i>						
Pearson Corr.	1					
Sig. (bilateral)						
N	323					
<i>2. Group</i>						
Pearson Corr	-0.528**	1				
Sig. (bilateral)	000					
N	323	323				
<i>3. Barriers</i>						
Pearson Corr	-0.953**	0.446**	1			
Sig. (bilateral)	0.000	0.000				
N	323	323	323			
<i>4. Banking financial support</i>						
Pearson Corr	0.509**	-0.617**	-.425**	1		
Sig. (bilateral)	0.000	0.000	0.000			
N	323	323	323	323		
<i>5. Time to creation</i>						
Pearson Corr	0.928**	-0.493**	-0.885**	0.515**	1	
Sig. (bilateral)	0.000	0.000	0.000	0.000		
N	323	323	323	323	323	
<i>6. Financial source</i>						
Pearson Corr	0.858**	-0.562**	-0.818**	0.672**	0.865**	1
Sig. (bilateral)	0.000	0.000	0.000	0.000	0.000	
N	323	323	323	323	323	323

**Table III.**  
Correlation matrix

**Note:** \*\*The correlation is significant at the 0.01 level (bilateral)  
**Source:** Own elaboration

It should be noted that the variables associated with Banking Financial Support and to Financial Source being financial barriers are, according to Gnyawali and Fogel's (1994) classification, invisible barriers. Their variability depends on the period to which the observation corresponds as described above, which is why they are analysed independently. Their inclusion in the questionnaire allowed, through triangulation, the validation of the individual answers.

*Independence test*

Based on the chi-square test of independence, we tested the independence of each variable in relation to the group to which they belong. The results (Table IV) are statistically significant

Statistics	Value	Degrees of freedom	Asymptotic significance (Bilateral)	Exact sig. (2 sided)	Exact sig. (1 sided)
<i>Chi-square test cross-tabulation: group by organization created not created</i>					
Pearson's chi-square	89.888 <sup>a</sup>	1	0.000		
Continuity correction <sup>b</sup>	87.592	1	0.000		
Likelihood ratio	93.302	1	0.000		
Fisher exact test				0.000	0.000
Linear by linear association	89.610	1	0.000		
N.° valid cases	323				
<i>Chi-square test cross-tabulation: group by barrier</i>					
Pearson's chi-square	31.703 <sup>c</sup>	2	0.000		
Likelihood ratio	27.390	2	0.000		
Linear by linear association	15.219	1	0.000		
N.° valid cases	223				
<i>Chi-square test cross-tabulation: group by banking financial support</i>					
Pearson's chi-square	122.880 <sup>d</sup>	1	0.000		
Continuity correction <sup>e</sup>	119.867	1	0.000		
Likelihood ratio	149.261	1	0.000		
Fisher exact test				0.000	0.000
Linear by linear association	122.500	1	0.000		
N.° valid cases	323				
<i>Chi-square test cross-tabulation: group by financial source</i>					
Pearson's chi-square	29.990 <sup>f</sup>	3	0.000		
Likelihood ratio	31.509	3	0.000		
Linear by linear association	22.784	1	0.000		
N.° valid cases	100				
<i>Chi-square test cross-tabulation: group by time for creation</i>					
Pearson's chi-square	17.182 <sup>g</sup>	3	0.001		
Likelihood ratio	14.249	3	0.003		
Linear by linear association	0.036	1	0.849		
N.° valid cases	100				

**Notes:** <sup>a</sup>0 cells (0.0%) expected counts less than 5 and the minimum expected count are 42.11; <sup>b</sup>Computed only for a 2 × 2 table; <sup>c</sup>2 cells (33.3%) expected counts less than 5 and the minimum expected count are 1.23; <sup>d</sup>0 cells (0.0%) expected counts less than 5 and the minimum expected count are 29.47; <sup>e</sup>Computed only for a 2 × 2 table; <sup>f</sup>2 cells (25.0%) expected counts less than 5 and the minimum expected count are 3.23; <sup>g</sup>3 cells (37.5%) expected counts less than 5 and the minimum expected count are 1.14

**Source:** Own elaboration, data sample

**Table IV.**  
Chi-square test of  
independence

(99.9 per cent confidence level) to assume that Group 1 is different from Group 2 in all relationships, thus justifying the sample partitioning we performed.

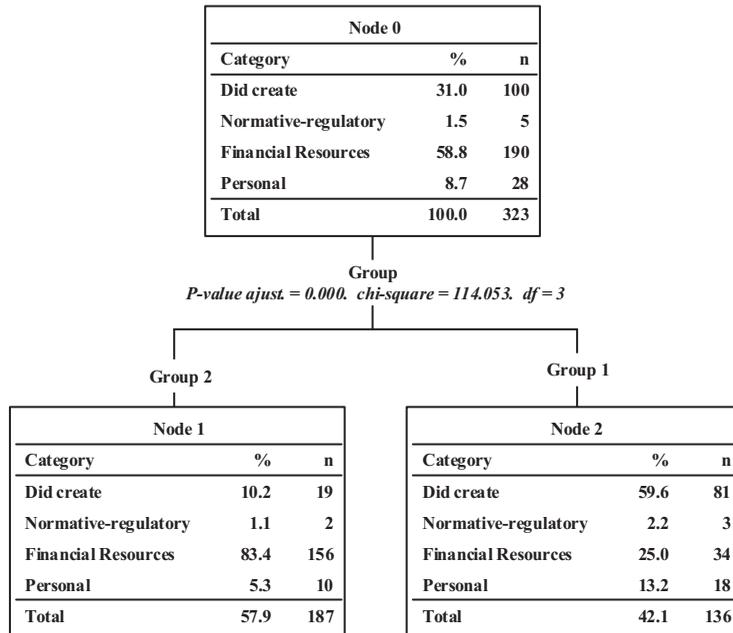
**Discussion**

The first evidence that we should highlight is the verification that all the formulated hypotheses are statistically validated with no ambiguity (significance level higher than 99.9 per cent).

The barriers imposed between intention and entrepreneurial action imply that 69.0 per cent of the potential entrepreneurs with express entrepreneurial intention did not create a new organization (Figure 2). This value is significantly different considering the group (Figure 4). Thus, 40.4 per cent of the individuals belonging to Group 1 did not create a new organization and 89.8 per cent of the elements belonging to Group 2 did not create a new organization, that is, the effect of the barriers is much more pronounced in Group 2.

The Financial Resources barrier is the most important one, conditioning the non-creation in 58.8 per cent of the cases (25.0 per cent in Group 1 and 83.4 per cent in Group 2), in line with the conclusions of Kew *et al.* (2013), Martins *et al.* (2004) and Robertson *et al.* (2003).

The barrier normative-regulatory is the least important one. Although the direction of the relationship is in accordance with the literature (Kew *et al.*, 2013; Martins *et al.*, 2004; Robertson *et al.*, 2003), the magnitude of the relative impact is practically irrelevant, result also found by Goethner *et al.* (2012). This value, however, is contrary to the results presented in the GEM (2004, 2007) Portugal reports. According to those reports, grounded on the opinions of 27 experts, the barrier normative-regulatory is the most important one. This assessment does not change in subsequent reports where it is stated that “the structural



**Figure 2.**  
CHAID diagram of relationship between the Barriers and the Group

Source: Own elaboration

condition of Governmental Policies was the one that registered the less favourable appreciation on the part of the national experts. These experts point out as main obstacles to the promotion of the entrepreneurial activity in the Country the existence of excessive bureaucracy” (GEM, 2012, p. 9), and also, “the structural condition of Governmental Policies was the one that registered the less favorable appreciation by the national experts” (GEM, 2013, p. 50). Although methodological differences make the comparison of values impossible, we must consider that differences of this magnitude deserve reflection.

The personal reasons associated to the sociocultural barriers condition the non-creation in 8.7 per cent, which also is in accordance with the literature (Kew *et al.*, 2013; van Gelderen *et al.*, 2015). We can also verify that the influence of the barrier is different according to the group, more accentuated in Group 1 (13.2 per cent) than Group 2 (5.3 per cent).

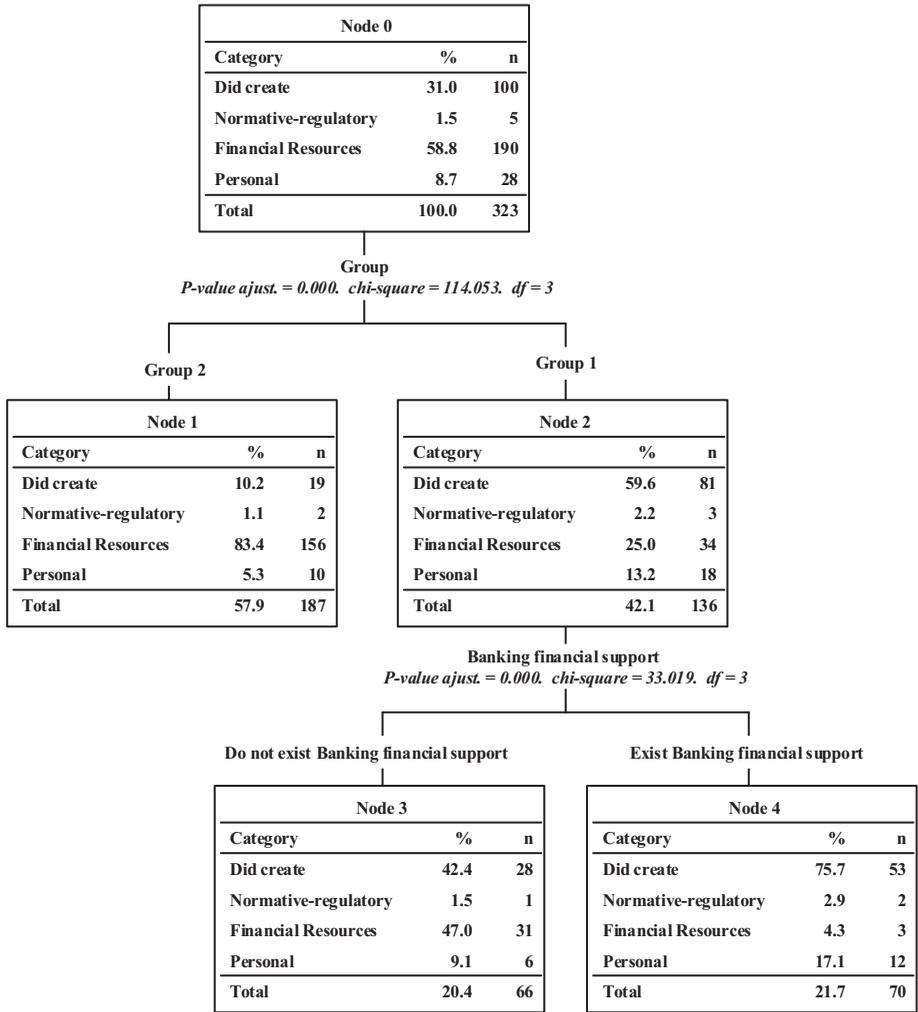
The above conclusions are reinforced by the results obtained if, in accordance with the literature (Edelman *et al.*, 2008; Rotefoss and Kolvereid, 2005), we include the variable associated to the banking financial support (Figure 3).

In addition, regarding the financial resource barrier, it is necessary to point out the relation obtained in nodes 3 and 4 (Figure 3). The results allows us to verify that changes in banking financial support imply limits on the creation of new organizations, 42.4 versus 75.7 per cent based on evidence from Group 1. The computation related to Group 2 is not possible because there is no data. But the most important aspect is to verify that the financial banking support change the order of the impact of the barriers, that is, the personal barrier becomes the most important barrier, followed by the financial resources. This result statistically highlights our starting point: the Accomplishment Process is conditioned by the barriers that are interposed between entrepreneurial intention and entrepreneurial action; therefore, if we empirically verify that the most important barrier is financial, it will be expected that, when financial facilities exist, the barrier will diminish in importance. The conclusion is further reinforced by the results presented on Figure 4, which demonstrates the relationship between the organization created/not created, the group and the banking financial support.

Figure 4 shows that 31.0 per cent of entrepreneurial candidates created an organization, being consistent with the previously mentioned results. If we only consider the results regarding the period in which there is no banking financial support, we can observe that 42.4 per cent of the individuals belonging to Group 1 created an organization (see Node 3) facing 10.2 per cent of the individuals belonging to Group 2 (see Node 2). This indicates that less development of the project limits the creation of a new organization, supporting the theoretical debate that describes the behaviours of transition from intention to entrepreneurial action (Bagozzi *et al.*, 1989; Kessler and Frank, 2009; Kew *et al.*, 2013; van Gelderen *et al.*, 2015). About this relationship, we should refer the unexpected results of Group 1, globally 59.6 per cent of the respondents affirm to have created a new organization, a percentage that rises to 75.7 per cent in the period in which there is banking financial support. Considering the studies carried out for the Portuguese reality, this value should be significantly lower: “Portugal in 2012 registered a tax early-stage entrepreneurs[4] of 7.7 per cent” (GEM, 2013, p. 14) Portugal Report. This disparity of values compelled us to validate our results, being possible to verify the existence of the new companies created by 78 entrepreneurs, some have created more than one, of the 81 who claim to have done it and therefore ensure that 96.3 per cent of the respondents said the truth.

Next, we analyse the different financial sources of the new organizations (Figure 5).

According to the results, we can verify that the main source of financing is exclusively provided by entrepreneurs’ equity, as would be expected considering the



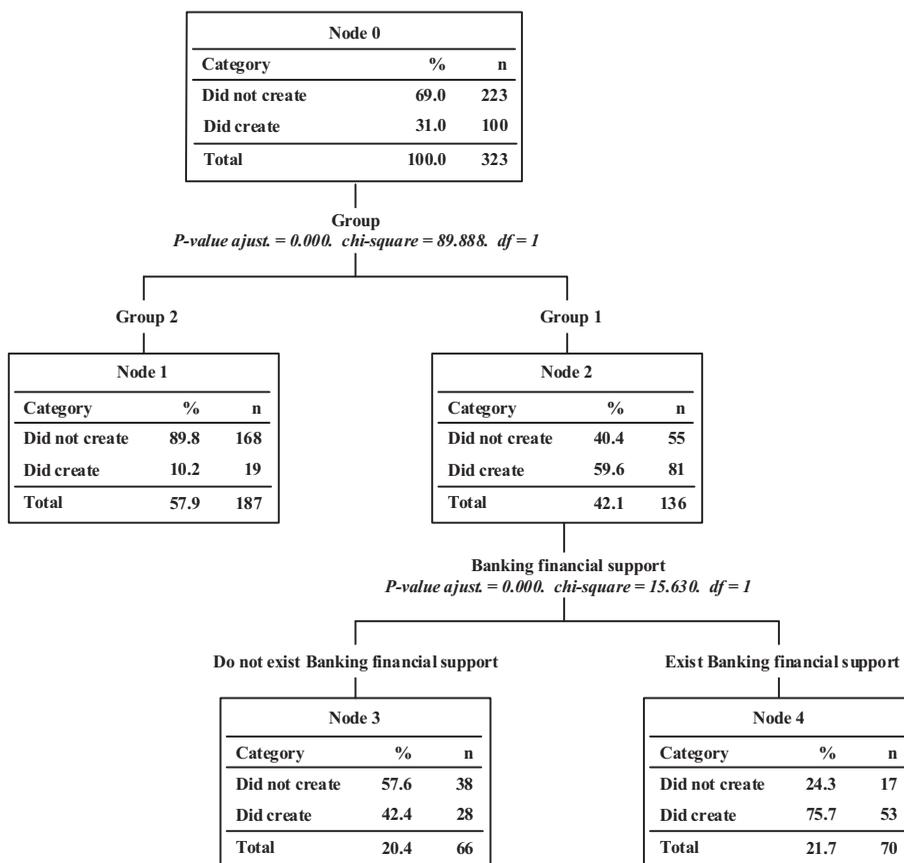
**Figure 3.**  
CHAID diagram of  
relationship between  
the barriers, the  
group and the  
banking financial  
support

**Source:** Own elaboration

literature. This option changes during the period in which banking financial support exists.

It is worth mentioning that 100 per cent of the respondents who created an organization, regardless of the group, affirm that they did not create it if they did not have the necessary capital, which further strengthens the importance of the financial barrier.

In our last diagram, we present the results obtained to evaluate the temporal gap between intention and entrepreneurial action (Figure 6). As mentioned by Heckhausen (2007) and Krueger (2000), the creation of a new organization is not an immediate task, it is an intentional goal that materializes in the medium/long term.



**Figure 4.** CHAID diagram of relationship between the Organization created/not created, the Group and the Banking Financial Support

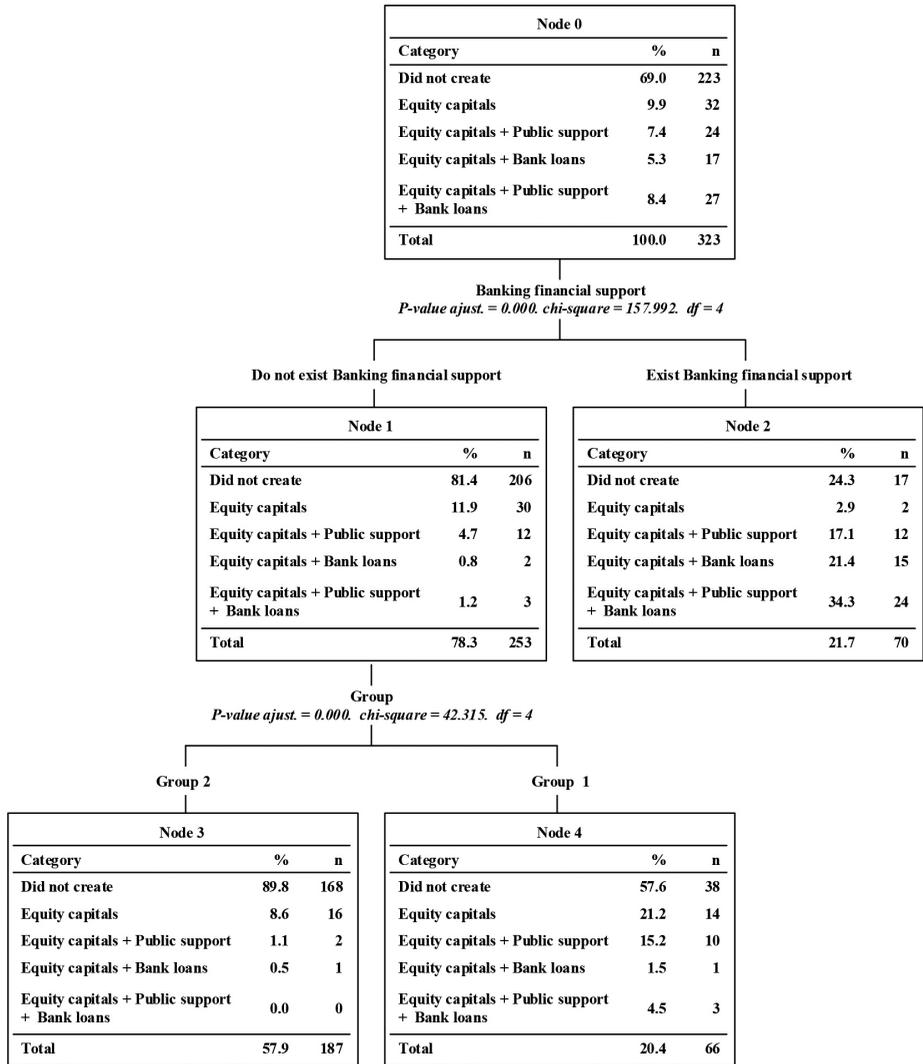
**Source:** Own elaboration

On average, 94 per cent of companies are created up to two years after the end of the training period. This period is at least one year, from the time of application until the final evaluation of the project. Regarding the Process of Accomplishment, which we propose, it means up to three years of commitment to the objective (Bagozzi *et al.*, 1989; Liñán and Fayolle, 2015). That is, up to three years of individual attention and effort directed at relevant activities (Brännback *et al.*, 2007), to achieve the goal of creating a new organization.

### Conclusion

The purpose of our study is to assess the impact of normative-regulatory, socio-cultural and economic-financial barriers faced by potential and intentional entrepreneurs, which impede the creation of new organizations and thus contribute to the explanatory debate of the entrepreneurial intent-action gap.

Grounded on a post-positivist position, we propose a quantitative approach, surveying 569 potential and intending entrepreneurs from a longitudinal sample of 22 years.



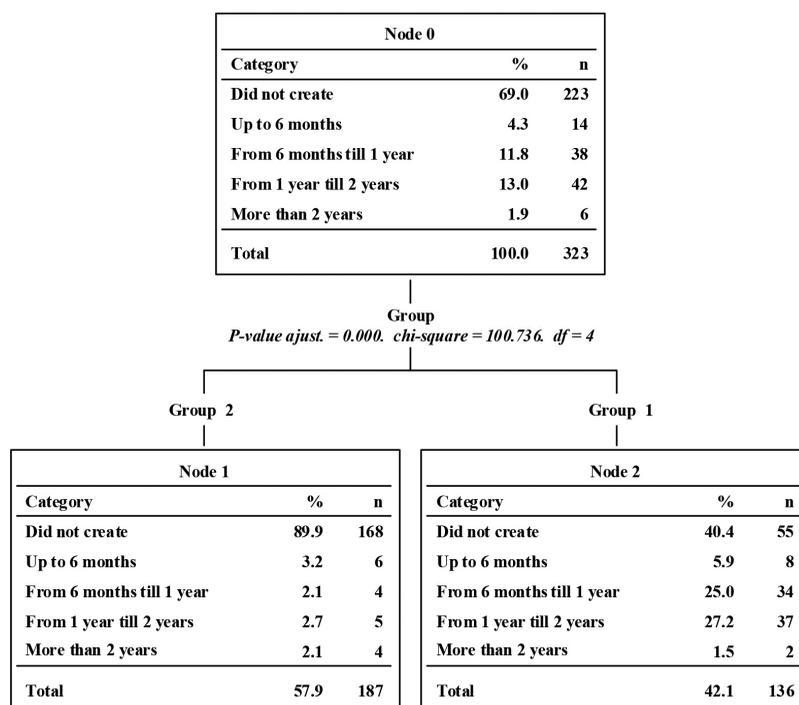
**Figure 5.** CHAID diagram of relationship between the Financial Source, the Banking Financial Support and the Group

**Source:** Own elaboration

The data were obtained by survey through questionnaire, from the registers of the ANJE database registers, considering all the entrepreneur candidates enrolled in entrepreneurship training courses promoted by the association itself or in partnership with other entities.

The results allowed us to conclude that all the barriers limit the creation of new organizations; 69.0 per cent of the respondents did not accomplish the previous entrepreneurial intention.

The financial resources barrier (economic-financial) is the most important one, 85.2 per cent of the entrepreneur candidates do not create an organization because of it. The personal



**Figure 6.**  
CHAID diagram of  
relationship between  
the Time to Creation  
and the Group

**Source:** Own elaboration

barrier (sociocultural) is the second most important except during the period in which banking financial support is available, where become the first. This result emphasizes the importance of the financial resources barrier.

The impact of the normative-regulatory barrier is statistically relevant, but practically irrelevant on the magnitude.

The results also allow us to conclude that a lower development of the project accentuates the entrepreneurial intention-action gap, supporting the theoretical debate about the behaviours of transition from intention to entrepreneurial action. Finally, they support the existence of a medium/long-term temporal relationship between intention and entrepreneurial action; it means up to 3 years of commitment to achieve the goal of creating a new organization.

From the analysis of the period of banking financial support, once again, emerges the impact of the financial resources barrier, as 100 per cent of the respondents that had created an organization, regardless of the group that they belonged to, stated that they would have not created it if they had not had the necessary financial resource to its creation.

#### *Theoretical and practical implications*

The study is novel by providing new insights about entrepreneurship and the entrepreneurial intention-action gap. The most important theoretical implication is the conceptualization of the accomplish process, the empirical identification of the barriers and

their relative importance. Furthermore, alerts entrepreneurial candidates to the need to identify and find ways to overcome the barriers they face in the achievement process.

The study also discloses contradictory results with the Global Entrepreneurship Monitor – Portuguese Reports, both regarding:

- the order of importance of the barriers; and
- the taxes of early-stage entrepreneurs.

Due to their size, these results merit reflection because, despite the limits of comparability, there is evidence of clear contradictions that, if confirmed, require the reformulation of Portuguese national policies in the promotion and development of entrepreneurial activities.

#### *Limitations of the study*

The convenience sample limits the comparability and generalization of the results. The sample only concerns the ANJE database, which, despite its national scope, excludes other entities (e.g. Portuguese Women Entrepreneurs Association, Portuguese Society of Innovation, Portuguese Business Association), which have developed similar models.

The political changes in the entrepreneurship promotion resulted in the temporal limitation of the sample.

A final limitation is associated with the aggregation of the constituents of each of the barriers. It is justified because the study is exploratory, but it reduces the available information.

#### *Future research lines*

This study intends to be our first approach to understand the barriers that restrict entrepreneurial intention and entrepreneurial action. It is particularly interesting to understand if the changes occurred meanwhile in the promotion of the entrepreneurial action have also lead to changes in the composition and impact of the different barriers, particularly to understand if the changes in the Portuguese policy of promoting entrepreneurial actions caused changes in the composition and impact of the identified barriers. In this line of thinking, to try to understand to what extent the barriers are ignored, because the costs of not-acting outweigh the losses of not-doing. The cross of the studies will make it possible to analyse the convergence from promotion to entrepreneurial action and organization creation.

It will be appropriate to consider a qualitative approach that allows a different understanding of the phenomenon and finally try to understand the apparent contradiction between our results and the GEM Portugal reports. As previously mentioned, the sampling technique that was used does not allow for comparison; in addition, the actors and periods do not coincide, but the evidence of contradiction is clear and deserves reflection.

#### **Notes**

1. The JEEP (acronym of Jovens Empresários de Elevado Potencial) was the first Portuguese training course in entrepreneurship and business creation, conceptualized in 1985 by the scope of the Banco Português do Atlântico – BPA (Portuguese Commercial Bank). From 1985 to 1989, it was organized by its Conselho Gestão e Investimentos, with the same team that later on integrates Espaço Atlântico and ANJE. From 1991 to 1996, it was organized by Espaço Atlântico and ANJE. Finally, from 2001 to 2004, it was organized only by ANJE itself.
2. PAECE – Acronym of Programa Avançado de Empreendedorismo e Criação de Empresas.

3. Created jointly in 1999 by the Babson College and the London Business School the GEM – Global Entrepreneurship Monitor, is a global and periodic report, that has as objective to describe analyze and promote the entrepreneurial process in a global context from: the measurements of the entrepreneurial activity of the different countries that integrate the consortium; the dissemination of the practices that promote the development of entrepreneurial activity; and the suggestion of actions that promote the improvement of entrepreneurial activity.
4. Early-stage entrepreneurs: individuals involved in start-ups or in the management of new enterprises.

## References

- Abbott, A. (2001), "On the concept of turning point", in Abbott, A. (Ed.), *Time Matters: On Theory and Method*, University of Chicago Press, Chicago, pp. 240-260.
- Achtziger, A. and Gollwitzer, P.M. (2007), "Motivation and volition during the course of action", in J. Heckhausen and H. Heckhausen (Eds), *Motivation and Action*, Cambridge University Press, New York, NY, pp. 272-295.
- Ajzen, I., Czasch, C. and Flood, M.G. (2009), "From intentions to behavior: implementation intention, commitment, and conscientiousness", *Journal of Applied Social Psychology*, Vol. 39 No. 6, pp. 1356-1372.
- Audretsch, D. (2012), "Entrepreneurship research", *Management Decision*, Vol. 50 No. 5, pp. 755-764.
- Bagozzi, R.P. and Warshaw, P.R. (1990), "Trying to consume", *Journal of Consumer Research*, Vol. 17 No. 2, pp. 127-140.
- Bagozzi, R.P., Baumgartner, J. and Yi, Y. (1989), "An investigation into the role of intentions as mediators of the attitude-behavior relationship", *Journal of Economic Psychology*, Vol. 10 No. 1, pp. 35-62.
- Bandura, A. (2001), "Social cognitive theory: an agentic perspective", *Annual Review of Psychology*, Vol. 52 No. 1, pp. 1-26.
- Bandura, A. (2006), "Toward a psychology of human agency", *Perspectives on Psychological Science: a Journal of the Association for Psychological Science*, Vol. 1 No. 2, pp. 164-180.
- Barr, S.H., Baker, T.E., Markham, S.K. and Kingon, A.I. (2009), "Bridging the valley of death: lessons learned from 14 years of commercialization of technology education", *Academy of Management Learning and Education*, Vol. 8 No. 3, pp. 370-388.
- Berg, B. (2009), *Qualitative Research Methods for the Social Sciences*, (7th ed.), Allyn and Bacon Publications, Pearson Education Company, MA.
- Bernard, H.R. (2011), *Research Methods in Anthropology: Qualitative and Quantitative Approaches*, (5th Edition), AltaMira Press, Plymouth.
- Bird, B. and Schjoedt, L. (2009), "Entrepreneurial behavior: its nature, scope, recent research, and agenda for future research", in Carsrud, A. and Brännback, M. (Eds), *Understanding the Entrepreneurial Mind: Opening the Black Box*, Springer, Heidelberg, pp. 327-358.
- Blanchflower, D., Oswald, A. and Stutzer, A. (2001), "Latent entrepreneurship across nations", *European Economic Review*, Vol. 45 Nos 4/6, pp. 680-691.
- Brandtstädter, J. (2009), "Goal pursuit and goal adjustment: self-regulation and intentional self-development in changing developmental contexts", *Advances in Life Course Research*, Vol. 14 Nos 1/2, pp. 52-62.
- Brännback, M., Carsrud, A., Kickul, J., Krueger, N. and Elfving, J. (2007), "Trying' to be an entrepreneur? A Goal-Specific challenge to the intentions model", Babson College Entrepreneurship Research Conference, *Madrid, Spain*, pp. 1-16.

- Bryman, A. and Cramer, D. (2005), *Quantitative Data Analysis with IBM SPSS 12 and 13: A Guide for Social, Scientists*. Routledge, Taylor and Francis Group, New York, NY.
- Bryman, A. and Cramer, D. (2012), *Quantitative Data Analysis with IBM SPSS 17, 18 & 19: A Guide for Social Scientists*, Routledge, London.
- Campenhoudt, L.V. and Quivy, R. (2008), *Manual de Investigação em Ciências Sociais*, Gradiva Publicações, Lisboa.
- Carland, J.W., Hoy, F., Boulton, W.R. and Carland, J.A. (1984), "Differentiating entrepreneurs from small business owners: a conceptualization", *Academy of Management Review*, Vol. 9 No. 2, pp. 354-359.
- Carsrud, A. and Brännback, M. (2011), "Entrepreneurial motivations: what do we still need to know?", *Journal of Small Business Management*, Vol. 49 No. 1, pp. 9-26.
- Carter, D.F. and Hurtado, S. (2007), "Bridging key research dilemmas: quantitative research using a critical eye", *New Directions for Institutional Research*, Vol. 2007 No. 133, pp. 25-35.
- Carter, N.M., Gartner, W.B. and Reynolds, P.D. (1996), "Exploring start-up event sequences", *Journal of Business Venturing*, Vol. 11 No. 3, pp. 151-166.
- Creswell, J. (2009), *Research Design Qualitative, Quantitative and Mixed Methods Approaches*, 3<sup>a</sup> Edition, SAGE Publications, London.
- Curtain, R. (2000), "Towards a youth employment strategy", Report to the United Nations on Youth Employment, New York, NY.
- Denzin, N.K. (1978), *Sociological Methods: A Source Book*, (2nd ed.), McGraw-Hill, New York, NY.
- do Paço, A., Ferreira, J.M., Raposo, M., Rodrigues, R.G. and Dinis, A. (2015), "Entrepreneurial intentions: is education enough?", *International Entrepreneurship and Management Journal*, Vol. 11 No. 1, pp. 57-75.
- Edelman, L.F., Manolova, T.S. and Brush, C.G. (2008), "Entrepreneurship education: correspondence between practices of nascent entrepreneurs and textbook prescriptions for success", *Academy of Management Learning and Education*, Vol. 7 No. 1, pp. 56-70.
- Elfving, J. (2008), *Contextualizing Entrepreneurial Intentions: A Multiple Case Study on Entrepreneurial Cognition and Perception*, Åbo Akademis Förlag – Åbo Akademi University Press, Finland.
- Elfving, J., Brännback, M. and Carsrud, A. (2009), "Toward a contextual model of entrepreneurial intentions", in Carsrud, A. and Brännback M., (Eds), *Understanding the Entrepreneurial Mind: Opening the Black Box*, Springer, New York, NY, pp. 23-33.
- Fiet, J.O. (2001a), "The pedagogical side of entrepreneurship theory", *Journal of Business Venturing*, Vol. 16 No. 2, pp. 101-117.
- Fiet, J.O. (2001b), "The theoretical side of teaching entrepreneurship", *Journal of Business Venturing*, Vol. 16 No. 1, pp. 1-24.
- Fink, A. (1995), *The Survey Kit*, Sage Publications, Thousand Oaks.
- Frese, M. (2009), *Toward a Psychology of Entrepreneurship: An Action Theory Perspective*, Now Publishers, Delft.
- Frese, M., Bausch, A., Schmidt, P., Rauch, A. and Kabst, R. (2012), "Evidence-based entrepreneurship: cumulative science, action principles, and bridging the gap between science and practice", *Foundations and Trends® in Entrepreneurship*, Vol. 8 No. 1, pp. 1-62.
- Gartner, W.B. (1985), "A conceptual framework for describing the phenomenon of new venture creation", *Academy of Management Review*, Vol. 10 No. 4, pp. 696-706.
- Gartner, W.B. (1989), "Who is an entrepreneur? Is the wrong question", *Entrepreneurship Theory and Practice*, Vol. 13 No. 4, pp. 47-68.
- GEM (2004), Projecto GEM Portugal 2004, Nova Forum and Sociedade Portuguesa de Inovação.
- GEM (2007), Projecto GEM Portugal 2007, Sociedade Portuguesa de Inovação, Instituto de Apoio às Pequenas e Médias Empresas e à Inovação, Fundação Luso-Americana para o Desenvolvimento and Banco Espírito Santo.

- GEM (2012), Estudo Sobre o Empreendedorismo, ISCTE-Instituto Universitário de Lisboa and Sociedade Portuguesa de Inovação Ventures.
- GEM (2013), 2004-2013: Uma Década de Empreendedorismo em Portugal, Sociedade Portuguesa de Inovação, ISCTE-Instituto Universitário de Lisboa, Instituto de Apoio às Pequenas e Médias Empresas e à Inovação and Fundação Luso-Americana para o Desenvolvimento.
- Gielnik, M.M., Barabas, S., Frese, M., Namatovu-Dawa, R., Scholz, F., Metzger, J. and Walter, T. (2014), "A temporal analysis of how entrepreneurial goal intentions, positive fantasies, and action planning affect starting a new venture and when the effects wear off", *Journal of Business Venturing*, Vol. 29 No. 6, pp. 755-772.
- Gielnik, M.M., Frese, M., Kahara-Kawuki, A., Katono, I.W., Kyejjusa, S., Munene, J., Ngoma, M., Namatovu-Dawa, R., Nansubuga, F., Orobia, L., Oyugi, J., Sejjaaka, S., Sserwanga, A., Walter, T., Bischoff, K.M. and Dlugosch, T.J. (2015), "Action and Action-Regulation in entrepreneurship: evaluating a student training for promoting entrepreneurship", *Academy of Management Learning and Education*, Vol. 14 No. 1, pp. 69-94.
- Gnyawali, D.R. and Fogel, D.S. (1994), "Environment for entrepreneurship development, key dimensions and research implications", *Entrepreneurship Theory and Practice*, Vol. 18 No. 4, pp. 43-62.
- Goethner, M., Obschonka, M., Silbereisen, R.K. and Cantner, U. (2012), "Scientists' transition to academic entrepreneurship: economic and psychological determinants", *Journal of Economic Psychology*, Vol. 33 No. 3, pp. 628-641.
- Gollwitzer, P.M. and Sheeran, P. (2006), "Implementation intentions and goal achievement: a meta-analysis of effects and processes", in Zanna, M.P. (Ed.), *Advances in Experimental Social Psychology*, Academic Press, San Diego, pp. 69-119.
- Grilo, I. and Irigoyen, J.M. (2006), "Entrepreneurship in the EU: to wish and not to be", *Small Business Economics*, Vol. 26 No. 4, pp. 305-318.
- Heckhausen, H. and Gollwitzer, P.M. (1987), "Thought contents and cognitive functioning in motivational and volitional states of mind", *Motivation and Emotion*, Vol. 11 No. 2, pp. 101-120.
- Heckhausen, J. (2007), "The motivation-volition divide and its resolution in action-phase models of developmental regulation", *Research in Human Development*, Vol. 4 Nos 3/4, pp. 163-180.
- Honig, B. and Karlsson, T. (2004), "Institutional forces and the written business plan", *Journal of Management*, Vol. 30 No. 1, pp. 29-48.
- Janesick, V.J. (1994), "The dance of qualitative research design: metaphor, methodolatry, and meaning", in Denzin, N.K. and Lincoln, Y.S. (Eds.), *Handbook of Qualitative Research*, Sage Publications, Thousand Oaks, CA.
- Joensuu-Salo, S., Varamäki, E. and Viljamaa, A. (2015), "Beyond intentions—what makes a student start a firm?", *Education + Training*, Vol. 57 Nos 8/9, pp. 853-873.
- Karlsson, T. and Honig, B. (2009), "Judging a business by its cover: an institutional perspective on new ventures and the business plan", *Journal of Business Venturing*, Vol. 24 No. 1, pp. 27-45.
- Kautonen, T., Gelderen, M. and Fink, M. (2015), "Robustness of the theory of planned behavior in predicting entrepreneurial intentions and actions", *Entrepreneurship Theory and Practice*, Vol. 39 No. 3, pp. 655-674.
- Kessler, A. and Frank, H. (2009), "Nascent entrepreneurship in a longitudinal perspective. The impact of person, environment, resources and the founding process on the decision to start business activities", *International Small Business Journal*, Vol. 27 No. 6, pp. 720-742.
- Klapper, L., Laeven, L. and Rajan, R. (2006), "Entry regulation as a barrier to entrepreneurship", *Journal of Financial Economics*, Vol. 82 No. 3, pp. 591-629.
- Kew, J., Herrington, M., Litovsky, Y. and Gale, H. (2013), *Generation Entrepreneur? The State of Global Youth Entrepreneurship*, Youth Business International and Global Entrepreneurship Monitor, Newcastle.

- Kouriloff, M. (2000), "Exploring perceptions of a priori barriers to entrepreneurship: a multidisciplinary approach", *Entrepreneurship Theory and Practice*, Vol. 25 No. 2, pp. 59-79.
- Krueger, N.F. (1993), "The impact of prior entrepreneurial exposure on perceptions of new venture feasibility and desirability", *Entrepreneurship Theory and Practice*, Vol. 18 No. 1, pp. 5-21.
- Krueger, N.F. (2000), "The cognitive infrastructure of opportunity emergence", *Entrepreneurship Theory and Practice*, Vol. 24 No. 3, pp. 5-23.
- Krueger, N.F. (2009), "Entrepreneurial intentions are dead: long live entrepreneurial intentions", in Carsrud, A. and Brännback, M. (Eds), *Understanding the Entrepreneurial Mind: Opening the Black Box*, Springer, New York, NY, pp. 51-72.
- Krueger, N.F., Reilly, M.D. and Carsrud, A.L. (2000), "Competing models of entrepreneurial intentions", *Journal of Business Venturing*, Vol. 15 Nos 5/6, pp. 411-432.
- Lichtenstein, B.B., Carter, N.M., Dooley, K.J. and Gartner, W.B. (2007), "Complexity dynamics of nascent entrepreneurship", *Journal of Business Venturing*, Vol. 22 No. 2, pp. 236-261.
- Liñán, F. and Fayolle, A. (2015), "A systematic literature review on entrepreneurial intentions: citation, thematic analyses, and research agenda", *International Entrepreneurship and Management Journal*, Vol. 11 No. 4, pp. 907-933.
- Magidson, J. (2005), *SI-CHAID 4.0 User's Guide*. Belmont, Statistical Innovations, MA.
- Magidson, J. and Vermunt, J. (2005), "An extension of the CHAID tree-based segmentation algorithm to multiple dependent variables", Weils, C. and Gaul, W. (Eds), *Classification – the Ubiquitous Challenge*, Springer, Berlin, pp. 176-183.
- Marôco, J. (2007), *Análise Estatística*. Edições Sílabo, Lisboa, 3a Edição.
- Marôco, J. and Garcia-Marques, T. (2006), "Qual a fiabilidade do alfa de cronbach? Questões antigas e soluções modernas?", *Laboratório de Psicologia*, Vol. 4 No. 1, pp. 65-90.
- Martin, A. (1982), "Additional aspects of entrepreneurial history", in Kent, C.A., Sexton, D.L. and Vesper, K.H. (Eds), *Encyclopedia of Entrepreneurship*, Prentice-Hall, Englewood Cliffs, pp. 15-19.
- Martin, B., McNally, J. and Kay, M. (2013), "Examining the formation of human capital in entrepreneurship: a Meta-Analysis of entrepreneurship education outcomes", *Journal of Business Venturing*, Vol. 28 No. 2, pp. 211-224.
- Martins, S., Couchi, C., Parat, L., Federico, C., Doneddu, R. and Salmon, M. (2004), *Barriers Entrepreneurship and Business Creation*. European Entrepreneurship Cooperation, Project n.º EEC/Act04/02, European Social Fund.
- Monteiro, A.P. (2013), *Orientação Empreendedora: A Influência Dos Recursos e Capacidades Empresariais No Desempenho Das Exportações*. Doutoramento em Marketing e Estratégia, Universidade do Minho, Braga.
- Neck, H.M. and Greene, P.G. (2011), "Entrepreneurship education: known worlds and new frontiers", *Journal of Small Business Management*, Vol. 49 No. 1, pp. 55-70.
- Nueno, P. (2001), *Emprendiendo: el Arte de Crear Empresas y Sus Artistas*, Ediciones Deusto Sociedad Anonima, Bilbao, España.
- OECD (Organization for Economic Co-operation and Development) (2001), *Putting the Young in Business: Policy Challenges for Youth Entrepreneurship*, The LEED Programme, Territorial Development Division, Paris.
- Perreault, W. and Barksdale, H. (1980), "A Model-Free approach for analysis of complex contingency data in survey research", *Journal of Marketing Research*, Vol. 17 No. 4, pp. 503-515.
- Pruett, M., Shinnar, R., Toney, B., Llopis, F. and Fox, J. (2009), "Explaining entrepreneurial intentions of university students: a cross-cultural study", *International Journal of Entrepreneurial Behavior and Research*, Vol. 15 No. 6, pp. 571-594.
- Raabe, B., Frese, M. and Beehr, T.A. (2007), "Action regulation theory and career self-management", *Journal of Vocational Behavior*, Vol. 70 No. 2, pp. 297-311.

- Rasmussen, E.A. and Sørheim, R. (2006), "Action-based entrepreneurship education", *Technovation*, Vol. 26 No. 2, pp. 185-194.
- Rauch, A. and Hulsink, W. (2015), "Putting entrepreneurship education where the intention to act lies: an investigation into the impact of entrepreneurship education on entrepreneurial behavior", *Academy of Management Learning and Education*, Vol. 14 No. 2, pp. 187-204.
- Robertson, M., Collins, A., Medeira, N. and Slater, J. (2003), "Barriers to start-up and their effect on aspirant entrepreneurs", *Education + Training*, Vol. 45 No. 6, pp. 308-316.
- Rotefoss, B. and Kolvereid, L. (2005), "Aspiring, nascent and fledgling entrepreneurs: an investigation of the business start-up process", *Entrepreneurship and Regional Development*, Vol. 17 No. 2, pp. 109-127.
- Schlaegel, C. and Koenig, M. (2014), "Determinants of entrepreneurial intent: a Meta-Analytic test and integration of competing models", *Entrepreneurship Theory and Practice*, Vol. 38 No. 2, pp. 291-332.
- Schoof, U. (2006), "Stimulating youth entrepreneurship: barriers and incentives to enterprise start-ups by young people (No. 388157)", International Labour Organization.
- Sequeira, J., Mueller, S.L. and McGee, J.E. (2007), "The influence of social ties and self-efficacy in forming entrepreneurial intentions and motivating nascent behavior", *Journal of Developmental Entrepreneurship*, Vol. 12 No. 3, pp. 275-293.
- Shane, S. and Venkataraman, S. (2000), "The promise of entrepreneurship as a field of research", *Academy of Management Review*, Vol. 25 No. 1, pp. 217-226.
- Shapiro, A. and Sokol, L. (1982), "The social dimensions of entrepreneurship", in Kent, C.A., Sexton, D. and Vesper, K.H. (Eds), *Encyclopedia of Entrepreneurship*, Prentice Hall, Englewood Cliffs, pp. 72-90.
- Sousa, C.M.P., Martínez-López, F.J. and Coelho, F. (2008), "The determinants of export performance: a review of the research in the literatures between 1998 and 2005", *International Journal of Management Reviews*, Vol. 10 No. 4, pp. 343-374.
- Townsend, D.M., Busenitz, L.W. and Arthurs, J.D. (2010), "To start or not to start: outcome and ability expectations in the decision to start a new venture", *Journal of Business Venturing*, Vol. 25 No. 2, pp. 192-202.
- Turcan, R.V. (2013), "The philosophy of turning points: a case of de-internationalization", in Devinney, T.M., Pedersen, T. and Tihanyi, L. (Eds), *Philosophy of Science and Meta-Knowledge in International Business and Management*, Advances in International Management, Emerald Group Publishing Limited, Bingley, pp. 219-235.
- van Gelderen, M., Kautonen, T. and Fink, M. (2015), "From entrepreneurial intentions to actions: self-control and action-related doubt, fear, and aversion", *Journal of Business Venturing*, Vol. 30 No. 5, pp. 655-673.
- Wilson, N. and Martin, L. (2015), "Entrepreneurial opportunities for all? Entrepreneurial capability and the capabilities approach", *The International Journal of Entrepreneurship and Innovation*, Vol. 16 No. 3, pp. 159-169.

### Further reading

- Bagozzi, R. (1992), "The self-Regulation of attitudes, intentions, and behavior", *Social Psychology Quarterly*, Vol. 55 No. 2, pp. 178-204.
- Bandura, A. (1986), *Social Foundations of Thought and Action*, Prentice-Hall, Englewood Cliffs.
- Cha, M.S. and Bae, Z.T. (2010), "The entrepreneurial journey: from entrepreneurial intent to opportunity realization", *The Journal of High Technology Management Research*, Vol. 21 No. 1, pp. 31-42.
- Gollwitzer, P.M. and Brandstätter, V. (1997), "Implementation intentions and effective goal pursuit", *Journal of Personality and Social Psychology*, Vol. 73 No. 1, pp. 186-199.
- Klyver, K. and Schøtt, T. (2011), "How social network structure shapes entrepreneurial intentions", *Journal of Global Entrepreneurship Research*, Vol. 1 No. 1, pp. 3-19.

- Pestana, M. and Gageiro, J. (2008), *Análise de Dados Para Ciências Sociais. A Complementaridade Do SPSS (5.a Edição)*, Edições Sílabo, Lisboa.
- Shook, C.L., Priem, R.L. and McGee, J.E. (2003), "Venture creation and the enterprising individual: a review and synthesis", *Journal of Management*, Vol. 29 No. 3, pp. 379-399.
- Thompson, E.R. (2009), "Individual entrepreneurial intent: construct clarification and development of an internationally reliable metric", *Entrepreneurship Theory and Practice*, Vol. 33 No. 3, pp. 669-694.
- Turcan, R.V. (2011), "De-internationalization: a conceptualization. Paper presented at AIB-UK and Ireland chapter conference on 'international business: new challenges, new forms, new Practices", Edinburgh, UK.
- Zhao, H., Hills, G.E. and Siebert, S.E. (2005), "The mediating role of self-efficacy in the development of entrepreneurial intentions", *The Journal of Applied Psychology*, Vol. 90 No. 6, pp. 1265-1272.

#### **About the authors**

António Oliveira is a PhD student of Economic Analysis and Business Strategy at University of Vigo, Vigo, Spain. He is a Lecturer of Management at the Porto Accounting and Business School (ISCAP), Porto, Portugal. His research interests are entrepreneurship and strategy. His research has been published in national and international scientific conferences and journals.

Orlando Lima Rua is a Professor of Management at the Porto Accounting and Business School (ISCAP), Porto, Portugal. He holds a PhD in Economics and Management. His research interests are entrepreneurship, innovation and strategy. His research has been published in national and international scientific conferences and journals. Orlando Lima Rua is the corresponding author and can be contacted at: [orua@iscap.ipp.pt](mailto:orua@iscap.ipp.pt)