

# Triggering events in the decision to be an entrepreneur: an analysis of their influence on higher education graduates

Triggering events to be an entrepreneur

Inés Ruiz-Rosa, Desiderio Gutiérrez-Taño,  
Francisco J. García-Rodríguez and Esperanza Gil-Soto  
*Universidad de La Laguna, San Cristóbal de La Laguna, Spain*

Received 9 April 2021  
Revised 31 July 2021  
19 September 2021  
Accepted 30 September 2021

## Abstract

**Purpose** – The present research focuses on an understudied field in the entrepreneurial process: the events that transform intention into effective entrepreneurial behavior.

**Design/methodology/approach** – In this paper a comparative analysis, using the *t*-test on related samples, is made of the perceptions of these triggering events of a group of graduates who showed entrepreneurial intention in higher education but, up to now, had not taken the decision to start a business with those of a group who had started a business. To do this, a sample of 227 graduates from a medium-sized European University located in Spain, with manifest entrepreneurial intention was used.

**Findings** – The results show that there are important differences between perceptions of entrepreneurship triggering events of potential entrepreneurs who have yet to start a company compared to entrepreneurs who have actually started a company. In this sense, the overevaluation by those who have not yet become entrepreneurs of events related to access to finance and the greater relevance for those with entrepreneurial experience of having a good team and contacts consisting of other entrepreneurs, mentors and advisers stand out.

**Research limitations/implications** – Some of the limitations observed in this work are related to the size of the sample analyzed. In the future, the study should be broadened, and different entrepreneurial behavior by academic specialization, gender, sector and/or type of activities should be investigated.

**Originality/value** – Our study focuses on the phase of the entrepreneurship process in which intention becomes action and, more specifically, on those events that favor this change in behavior.

**Keywords** Entrepreneurship, Higher education, Triggering events

**Paper type** Research paper

## 1. Introduction

There is no doubt that the promotion of entrepreneurial activity in a region generates employment, boosts innovation and, consequently, produces economic and social improvements (Gu *et al.*, 2021; Medeiros *et al.*, 2020). Faced with this challenge, universities have the obligation to become involved in facilitating such improvements in their local environments by promoting entrepreneurial attitudes among their students (Aaltio, 2008; Chen *et al.*, 2021; Lopes *et al.*, 2020; Mayhew *et al.*, 2012; Siegel and Wright, 2015).

Considering that in the process of creating a company, the effective decision to be an entrepreneur arises at a time after the intention to do so exists (Ajzen, 1991, 2001). Therefore, it is essential to understand the process that moves individuals from intention to action. Thus, the aim is to design, in Higher Education Institutions, educational strategies to promote this process (Iglesias-Sánchez *et al.*, 2016; Joensuu-Salo *et al.*, 2015; Kisubi *et al.*, 2021; Rauch and Hulsink, 2015).

In this sense, although studies in other fields have found a very strong correlation between intention and behavior, there is still an important gap in understanding the intention–behavior relationship in entrepreneurship literature (Kaffka and Krueger, 2018) and, specifically, in student entrepreneurship (Shirokova *et al.*, 2016).

In the analysis of the entrepreneurial process by Shapero and Sokol (1982), they identify so-called triggering events. These events or triggers can be understood as significant, positive or



---

negative events that cause a change in the inertia of an individual's behavior (Shapero, 1975). Therefore, the study of such events is essential to understand the triggers that make an entrepreneur finally decide to or not to start a business project (Curran *et al.*, 2016).

However, despite the significant impact that triggering events can have on entrepreneurial decisions (Yaseen *et al.*, 2018), their study has received relatively scant attention in the specialized literature (Kafka and Krueger, 2018; Krueger, 2008; Liang and Dunn, 2007; Lortie and Castogiovanni, 2015; Schindehutte *et al.*, 2000). Thus, Krueger (2008) called for an effort on the part of researchers to understand better the process that transforms entrepreneurial intention into action, but, up to now, the analysis of triggering events as the main factors that turn intention into effective entrepreneurial behavior has been very scarce (Degeorge and Fayolle, 2011; Joensuu-Salo *et al.*, 2015; Kafka and Krueger, 2018; Lortie, and Castogiovanni, 2015; Shirokova *et al.*, 2016). This gap is especially important in entrepreneurship education, as it is essential to know the factors on which programs should impact in order to improve students' entrepreneurial potential (Iglesias-Sánchez *et al.*, 2016; Kisubi *et al.*, 2021; Ruiz-Rosa *et al.*, 2021).

According to the above, our study focuses on the phase of the entrepreneurship process in which intention becomes action and, more specifically, on those events that favor this change in behavior. Specifically, this work focuses on the higher education context, where previous literature highlights that further research is needed to test additional theoretically justified moderators that turn intentions into entrepreneurial actions (Shirokova *et al.*, 2016). Therefore, this work aims to answer the following three research questions:

- (1) What circumstances act as triggers for a graduate who intends to start a business and finally decides to start one?
- (2) What is the perception of the influence that these circumstances have on graduates who intend to start a business but have not started one?
- (3) What is the influence that these circumstances have on graduates who have started a business?

To answer these questions, based on the entrepreneurial event model (Shapero and Sokol, 1982) this paper conducts a comparative study, using *t*-tests for related samples, between the perceptions that a group of graduates have of a set of triggering events, based on previous literature (Gnyawali and Fogel, 1994; Liang and Dunn, 2007; Maalej and Cabagnols, 2020), and the real effect of these same events on another group of graduates who have started companies. Findings show that there are important differences between perceptions of entrepreneurship triggering events of potential entrepreneurs yet to start a company compared to those who have started one. These differences can facilitate better policies and entrepreneurship education programs to promote entrepreneurship in higher education.

This paper is organized as follows. In the first section, a theoretical review is carried out of the entrepreneurship process and the concept of triggering events of entrepreneurial action. The triggering events considered to have the greatest potential when it comes to causing a change in behavior in an entrepreneurial process are identified to then propose working hypotheses. Subsequently, a detailed description of the research design and the methodology used for the study is given. The paper ends by discussing the main results and conclusions obtained, as well as summarizing possible future lines of research.

## 2. Theory and hypotheses

### 2.1 *The entrepreneurship process: from intention to action*

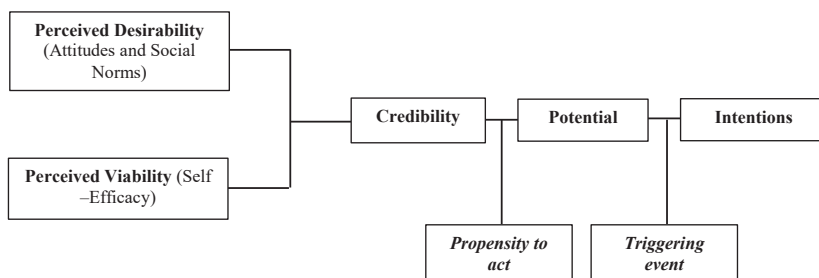
The interest of the scientific community to study the entrepreneurial phenomenon has been increasing notably in recent years, encouraging many authors to delve deeper into this area (e.g., Kafka and Krueger, 2018; Volery *et al.*, 2015). The creation of a company is the result of a

complex process that begins long before the entrepreneurial intention materializes itself (Gartner *et al.*, 1994; Kyrö and Carrier, 2005). However, without intention, action is very unlikely (DeGeorge and Fayolle, 2011), therefore, entrepreneurial intention is a prerequisite to the creation of a company and can be considered as its best predictor (Ajzen, 1991, 2001; Fishbein and Ajzen, 1975; Krueger and Brazeal, 1994). Thus, Fayolle (2013) or Joensuu-Salo *et al.* (2015) have highlighted the urgent need to analyze the link between intention and behavior. Attempts to explain the process of starting a business have adopted different theoretical approaches, although most of them have been based on the entrepreneurial event model proposed by Shapero (1975) and Shapero and Sokol (1982). According to the entrepreneurial event model, the decision to start a business depends on three elements: the perception of desirability, the perception of feasibility and the propensity to act expressed by the individual. These three elements are considered, in turn, antecedents of entrepreneurial intention, itself (Figure 1).

Taking this perspective as a starting point and adopting a cognitive approach, the Theory of Planned Behavior assimilates personal attitudes to perceived desirability, perceived behavioral control to perceived feasibility and introduces subjective norms, defined as the perceptions of other people's opinions of entrepreneurial behavior and considered the third antecedent of entrepreneurial intention (Ajzen, 1991, 2001). Adopting these perspectives as the main theoretical framework, multiple studies have been carried out to explain entrepreneurial intentions and behavior (Lortie and Castogiovanni, 2015). It is estimated that research on entrepreneurial intentions has grown more than 30 times as fast as entrepreneurship research since the 1990s (Kaffka and Krueger, 2018). However, the majority of studies over recent decades to test the explanatory power of entrepreneurial intention have only included the two main determinants from the entrepreneurial event model: perceived desirability and perceived feasibility (Kaffka and Krueger, 2018; Lortie and Castogiovanni, 2015).

The *perception of desirability* depends on subjective issues and integrates two variables from Ajzen's Theory of Planned Behavior (1991): attitude toward action and social norms. The first refers to the degree to which a person considers a certain behavior favorable or unfavorable which, in turn, will depend on the result that the person expects to obtain when performing the objective behavior. On the other hand, social norms are linked to the perception that potential entrepreneurs have about the opinion that their social environment holds about their entrepreneurial behavior (Krueger and Brazeal, 1994).

The *perception of feasibility* is associated with perceived self-efficacy. That is, the capacity that a person perceives they have to carry out a certain objective behavior (Krueger and Brazeal, 1994). People tend to avoid risky situations that they consider to be superior to their abilities to face them, while they engage with greater security in activities, when they believe they are capable of carrying them out (Marulanda *et al.*, 2014).



Source(s): Krueger and Brazeal (1994)

Figure 1.  
Model of  
entrepreneurial  
potential (simplified)

---

In spite of this intense development of research on entrepreneurial intentions over recent decades, especially from the entrepreneurial event model, the intention–behavior link remains understudied (Kaffka and Krueger, 2018). In this sense, according to the literature review by Lortie and Castogiovanni (2015) about the theory of planned behavior in entrepreneurship, the relationship between entrepreneurial intention and entrepreneurial behavior is the one that has received the least attention.

Shirokova *et al.* (2016) analyzed the intention–action gap among student entrepreneurs due to contextual factors. They distinguished between individual (family entrepreneurial background, age, gender) and environmental characteristics (university environment, uncertainty avoidance) and concluded that further research was needed to test additional theoretically justified moderators that can translate intentions into entrepreneurial actions.

Maâlej and Cabagnols (2020) analyzed the impact of entrepreneurial intention on a sample of 84 graduate engineers three years after their graduation from the National School of Engineering of Sfax (Tunisian). They observed a significant and positive relationship between intention and entrepreneurial behavior. However, the predictive power of intention considered alone was low. The introduction of contextual factors such as positive and negative displacements significantly increases the predictive power of the model.

Considering triggering events based on push factors, Vinogradov *et al.* (2013) investigated the influence of scarce employment opportunities on entrepreneurial intention. They found that in this scenario, to start a business is most strongly influenced by support from relatives and friends. Nevertheless, such unemployment perspectives do not have a moderating effect on the relationship between attitudes and intentions or between perceived behavioral control and intentions.

In this sense, Shapero (1975) points out that, as a general rule, inertia guides human behavior until an “event” occurs that modifies this inertia and causes a change in behavior. Krueger and Brazeal (1994) state that the impact that a triggering event can have on behavior will depend on its “credibility”, which in turn will be related to how desirable and feasible it may be to adopt a certain behavior. This “credibility” must be accompanied by a certain “propensity to act” on the part of the individual, that is to say, they perceive the change as desirable and feasible, which will depend on the person’s own attributions. Ultimately, this model considers that although the individual perceives the creation of a new company as desirable and feasible, and therefore credible, the entrepreneurial intention will not materialize until an event occurs that triggers the behavior (Veciana *et al.*, 2005).

## 2.2 Triggering events

For DeGeorge and Fayolle (2011) and Heinonen and Poikkijoki (2006), the intention to start a business project is necessary but not sufficient. Van Gelderen *et al.* (2015) also analyze the change from entrepreneurial intention to perform the action of setting up a business in a sample of 161 people over a 12-month period. These authors found that only 30% of those who had reported an “entrepreneurial intention” were really engaged in a process of business creation. Unexpected circumstances or events (either positive or negative) can trigger behaviors that were neither planned nor foreseen by the individual. These behaviors do not result from a plan but emerge as the natural consequence of the context from the point of view of the individual (Maâlej and Cabagnols, 2020). Therefore, some kind of triggering event is needed to move from intention to action. Shapero (1975) analyzed the conditions and personality types of a series of individuals who started companies compared to others who, under the same circumstances, did not. This work concluded that between one group and another, there were a series of differential conditions that caused a change in the behavior of certain individuals. These circumstances, defined by Shapero as “uncomfortable”, are what are known as “triggering events”.

Therefore, and following [Shapero and Sokol \(1982\)](#), triggering events could be defined as significant events in people's lives that can cause changes in entrepreneurial intentions. In short, the triggering event is what motivates, or on the contrary, discourages the development of a business project. These events can be derived both from the appearance or acquisition of facilitating elements and from the disappearance or overcoming of previously existing barriers ([Krueger and Brazeal, 1994](#); [Schindehutte et al., 2000](#)).

It is for this reason that these events can be positive, for example receiving some unexpected money, or negative, such as a job loss ([Mühlböck et al., 2018](#)). Along these lines, [Shapero and Sokol \(1982\)](#) distinguish between triggering events based on push factors and triggering events based on pull factors (attraction). Push factors are linked to internal elements that push individuals to act, while pull factors are external, "I do it because I see an opportunity" ([Williams et al., 2009](#)). In this sense, [Aouni and Surlmont \(2009\)](#) consider that two types of opportunity exist; entrepreneurs who identify opportunities existing in the environment and entrepreneurs who, using their own imagination, create new opportunities.

In other words, there is a clear distinction between positive factors that pull and unfavorable situations that push people into entrepreneurship ([Van der Zwan et al., 2016](#)). Along these lines, [Wennekers et al. \(2001\)](#), for example, identify job dissatisfaction as the most important push factor, while they consider the expectation of income as an employer as a fundamental pull factor, as opposed to that coming from being employed. [Van der Zwan et al. \(2016\)](#) and [Giacomin et al. \(2011\)](#) acknowledge that pull factors are related to entrepreneurship by opportunity, while push factors are associated with entrepreneurship by necessity.

In this sense, [Shapero \(1975\)](#) affirms that most people develop entrepreneurial projects motivated by negative factors (push factors or need). To verify such a statement, [Shapero \(1975\)](#) interviewed 109 people who had created companies in Austin (Texas). In 65% of the cases analyzed, the motivation for starting the company was due to factors considered negative, while only 28% admitted that the element that promoted the start-up of the company was positive. The remaining 7% were unable to identify the event that triggered the start-up of their business as positive or negative.

### 2.3 Hypotheses

As has already been commented, in this paper, we intend to check whether the perception of the same triggering event has the same intensity for two different groups: graduates who intend to start a business but have not started one and graduates who have decided to start a business project and done so.

To do this, first, we will try to identify the events recognized by the literature as having the greatest impact on generating changes in an individual's behavior. [Degeorge and Fayolle \(2011\)](#) consider that displacements (events) may be internal or external to the individual. For instance, frequently observed external displacements relate to changes in individuals' professional careers (layoffs, buyout of the company in which the individual is employed, etc.). Other displacements are considered internal to the individual because they are not produced by the environment. For instance, personal factors of dissatisfaction, the feeling that one is in the wrong place, and/or age-related factors are also often at the root of individuals' intentions to start a business. With the help of GEM methodology, [Elifneh \(2015\)](#) indicates that for potential entrepreneurs, the decision to start a business is influenced by personal characteristics (such as skills, personality traits and motivation) and macro-variables on the scale of the national business ecosystem. In this sense, [Gnyawali and Fogel \(1994\)](#) group the environmental conditions for the development of entrepreneurship projects into five dimensions: entrepreneurial and business skills, financial support to business, government policies and procedures, socioeconomic conditions and non-financial support to business. [Liang and Dunn \(2007\)](#) also tried to identify the triggering events that caused the

start-up of business projects of a group of 100 entrepreneurs. As a result of their research, these authors classify triggering events into five groups: personal triggers, idea/opportunity-related triggers, job-related triggers, financial triggers and family and interpersonal triggers.

Finally, [Schindehutte et al. \(2000\)](#) make a proposal for the classification of triggering events for corporate entrepreneurship, distinguishing between five groups:

- (1) Reason for the behavior, that is, if it is internal (employees) or external (customers, competitors, universities, public reports, suppliers, etc.).
- (2) Business strategy, that is, if it is linked to the identification of opportunities or solution of needs.
- (3) Connection with the market, that is, if it is due to technology-push or market-pull.
- (4) Hierarchy in business management, top-down or bottom-up.
- (5) Type of search being either systematic or deliberate or by chance or opportunity.

Taking all these into account, in this paper, and following the classification proposals collected in the literature, the triggering events are grouped into five groups ([Table 1](#)).

According to previous works in the field of entrepreneurship education, the startup process can be understood as a learning process ([Iglesias-Sánchez et al., 2016](#); [Kisubi et al., 2021](#); [Ruiz-Rosa et al., 2021](#)). Therefore, the perceptions of triggering events and their influence on individuals' intentions and behaviors are expected to change during different stages. Specifically, it is expected that individuals that have started a company perceive a greater value than individuals that have not regarding issues such as project support, finding partners and staff, unfavorable economic situation or market acceptance of the product and/or service compared to issues like access to finance ([Bosma et al., 2021](#); [Maâlej and Cabagnols, 2020](#); [Wagdi and Hsaneen, 2019](#)).

*2.3.1 Market acceptance of the product and/or service.* Within the entrepreneurial and business skills triggers according to [Gnyawali and Fogel \(1994\)](#), technical knowledge related to the design and development of entrepreneurship projects is included. By contrast, [Liang and Dunn \(2007\)](#) associate the idea/opportunity-related triggers, above all, with the ability to detect business opportunities at a given time and/or the possibility of meeting market needs. In this study, we have considered that *market acceptance of a product and/or service* reflects an entrepreneur's ability to detect opportunities and/or identify needs and is the result of the entrepreneurial and business skills that every entrepreneur should have. Thus, [Maâlej and Cabagnols \(2020\)](#) include the development of a prototype and its testing on the market as a triggering event.

Groups of triggering events	Groups of triggering events (literature)
Market acceptance of the product and/or service	Entrepreneurial and business skills <a href="#">Gnyawali and Fogel (1994)</a>
Access to financing	Idea/opportunity-related triggers <a href="#">Liang and Dunn (2007)</a> Financial support to business <a href="#">Gnyawali and Fogel (1994)</a> Financial triggers <a href="#">Liang and Dunn (2007)</a>
Project support	Government policies and procedures <a href="#">Gnyawali and Fogel (1994)</a>
Finding suitable partners and/or staff	Non-financial support to business <a href="#">Gnyawali and Fogel (1994)</a>
Unfavorable economic situation	Socioeconomic conditions <a href="#">Gnyawali and Fogel (1994)</a> Job-related triggers <a href="#">Liang and Dunn (2007)</a>

**Source(s):** Prepared by authors based on [Liang and Dunn \(2007\)](#) and [Gnyawali and Fogel \(1994\)](#)

**Table 1.**  
Groups of triggering events

*2.3.2 Access to finance.* Several authors (Gnyawali and Fogel, 1994; Liang and Dunn, 2007; Maâlej and Cabagnols, 2020) agree on the importance of financial variables when starting a business project. In our research, we will refer to this group of events as *access to finance* since the acquisition of financial resources is a fundamental element in the development of new companies (Ko and McKelvie, 2018).

Taking these considerations into account, the first two hypotheses are posited:

- H1. For graduates who have started a company, having a product or service accepted by the market is more relevant than having access to finance.
- H2. For graduates who have not started a company, having a product or service accepted by the market is more relevant than having access to finance.

*2.3.3 Project support.* Public policies can undoubtedly design mechanisms capable of fostering an entrepreneurial culture in a territory and, thereby, favoring the creation of companies (Gnyawali and Fogel, 1994). In this study, the concept *project support* will be used to encompass those specific actions that an entrepreneur can associate with specific policies and measures linked to the promotion of business creation by public administrations. In this sense, Castaño *et al.* (2016) found that different aspects of the environment, such as less complexity in legal, administrative and financial system, have a positive impact on entrepreneurship in general.

Based on the above, the following two hypotheses are raised:

- H3. For graduates who have started a company, having support for the project is more relevant than having access to finance.
- H4. For graduates who have not started a company, having access to finance is more relevant than having support for the project.

*2.3.4 Finding suitable partners and/or staff.* The aspects related to non-financial support to business by Maâlej and Cabagnols (2020) and Gnyawali and Fogel (1994) refer to the additional support services that any entrepreneurial project needs, especially in its launch phase. In this line, the search for suitable partners and personnel for the development of the project is key (Das and He, 2006), it is for this reason that we will call this group of events *finding suitable partners and/or personnel*. Taking this reflection into account, the following two hypotheses are raised:

- H5. For graduates who have started a company, finding suitable partners and personnel for the project is more relevant than having access to finance.
- H6. For graduates who have not started a company, having access to finance is more relevant than finding partners and suitable personnel for the project.

*2.3.5 Unfavorable economic situation.* Finally, in relation to socioeconomic conditions, Bernat *et al.* (2008), Czyżewska *et al.* (2008) and Van der Zwan *et al.* (2016) identify among the most significant push factors when favoring the development of entrepreneurship projects, the risk of unemployment, family pressure, dissatisfaction with the current employment situation and the lack of attractive job options. In the same way, both Gnyawali and Fogel (1994) and Liang and Dunn (2007) also agree that the socio-economic conditions associated with insufficient remuneration at work and/or personal dissatisfaction, among others, are some of the most relevant triggering events.

In this sense, the concept of *unfavorable economic situation* has been used in this work as a descriptive element of the group of events related to socioeconomic conditions. Taking into account these circumstances, the last four hypotheses are postulated:

- H7.* For graduates who have started a company, having an unfavorable economic situation is more relevant than having support for the project.
- H8.* For graduates who have not started a company, having project support is more relevant than having an unfavorable economic situation.
- H9.* For graduates who have started a company, having an unfavorable economic situation is more relevant than finding partners and/or suitable personnel for the project.
- H10.* For graduates who have not started a company, finding suitable partners and/or personnel for the project is more relevant than having an unfavorable economic situation.

In summary and considering the seminal definition of [Shapero \(1975\)](#) and [Shapero and Sokol \(1982\)](#) of “triggering events” and the importance attributed to the perceptions of the subjects in their assessment ([Krueger and Brazeal, 1994](#); [Schindehutte et al., 2000](#)), [Table 2](#) shows the ten hypotheses raised in this work.

### 3. Research design and methodology

#### 3.1 Measurement instrument

In order to define a measurement for the construct determining factors of entrepreneurial action and to determine its dimensions, a questionnaire structured in two sections was used as a data collection instrument. The first included four variables to obtain descriptive information from the sample and identify the graduates who had started a company from those who had not, and the second contained the relationship of the triggering events identified. A Likert-type measurement scale of seven categories from 1 to 7 (nothing, very little, little, neither little nor much, somewhat, quite a lot, a lot) was chosen as the most appropriate scaling for the assessment of the items in the second part. This type of scale is the most frequently used in entrepreneurship education, and, specifically, in studies involving university graduates and students (e.g. [Iglesias-Sánchez et al., 2016](#); [Kisubi et al., 2021](#); [Ruiz-Rosa et al., 2021](#)).

The fieldwork was structured in three phases. To design the first draft of the data collection instrument, the elements identified by [Maálej and Cabagnols \(2020\)](#) and [Shapero \(1975\)](#) as triggering events were included (job dismissals, lack of possibility of professional advancement, not being comfortable with current work, need for independence and autonomy in management, meeting other leading entrepreneurs, having financial resources,

**Table 2.**  
Summary of the  
proposed working  
hypotheses

Groups of triggering events	Have started a company		Have not started one	
Market acceptance of the product and/or service	H1	+	H2	+
Access to finance		–		–
Project support	H3	+	H4	+
Access to finance		–		–
Finding suitable partners and staff	H5	+	H6	–
Access to finance		–		+
Unfavorable economic situation	H7	+	H8	–
Project support		–		+
Unfavorable economic situation	H9	+	H10	–
Finding suitable partners and staff		–		+



having qualified technical staff, as well as having the necessary materials and facilities) grouped into the five triggering event groups identified previously. Other factors identified by Staniewski and Awruk (2015) such as fulfillment and personal satisfaction were added to this initial list of items. These factors include the need for autonomy in decision-making and the possibility of directing one's own actions (Gelderen and Jansen, 2006; Staniewski and Awruk, 2015). There is also the possibility of personal achievements (Van der Zwan *et al.*, 2016), the acquisition of specific knowledge in the business environment, the acquisition of previous experience, the opportunity to achieve greater professional and personal development, as well as the expectation of obtaining higher income (Bernat *et al.*, 2008; Czyżewska *et al.*, 2008; Gelderen and Jansen, 2006; Staniewski and Awruk, 2015). Another aspect is the possibility of a partnership with a colleague or friend or a customer (Mañej and Cabagnols, 2020).

Following the perspective of Dana and Dana (2005), regarding the necessity to introduce a holistic focus to properly understand the entrepreneurial process, this first questionnaire, with the initial relationships of triggering events identified as potential precipitators of entrepreneurial action, was discussed by a panel of 20 experts made up of entrepreneurs, entrepreneurship promoting agents in various public institutions and specialized researchers in order to assess the impact of each of the actions identified as potentially triggers of entrepreneurial behavior.

As a result, a list of the 14 events considered most relevant when promoting the development of business projects was obtained, grouped into the five types of triggering events identified in the previous section: economic situation, access to finance, support for the project, finding partners and/or suitable personnel and acceptance of the product and/or service by the market (Table 3).

Thus, in the second phase, a pre-test was carried out with ten entrepreneurs selected at random in order to confirm the adequate understanding of the questions and thus provide greater consistency and suitability to the final questionnaire.

Finally, in the third phase, the field work itself was conducted. The empirical research was carried out among graduates who had taken entrepreneurial action or shown an interest in

---

*Unfavorable economic situation*

- 1 Having lost or being at risk of losing a job, without a job prospect
- 2 Not being comfortable with the current job
- 3 Very difficult personal financial situation

*Access to financing*

- 4 Receiving award/incentive
- 5 Access to financing, loans or subsidies necessary for the implementation of the project
- 6 Having resources to start the project (inheritance, family support, . . .)

*Project support*

- 7 Boost/motivation received in training/accelerator/incubator programs
- 8 Support from other entrepreneurs, professional networks, coworking spaces
- 9 Inspiration/impulse found in readings, blogs, talks, conferences

*Find partners-staff*

- 10 Finding suitable personnel/technicians for the development of the project
- 11 Finding a mentor
- 12 Finding key partner/s for the development of the project

*Market acceptance of the product/service*

- 13 Discovering/finding technical-economic solution for the development of the project
  - 14 Having received an important order to have enough volume to start the activity
- 

**Table 3.**  
List of most significant  
triggering events

doing so during their university studies. For the selection of the sample, following the proposal of [Liang and Dunn \(2007\)](#), a database with information on more than seven thousand graduates, who had finished their studies in the period 2007–2016, and who had taken a course or activity to support entrepreneurship organized by the university was used.

The study was carried out using graduates from the University of La Laguna, a medium-sized European University, located in the Spanish region of the Canary Islands. Regarding entrepreneurship activity, Spain is a good example of a western European country with their specificities from a social, cultural and legal-political viewpoint ([Dana, 2017](#)). It seems that the Spanish population perceives that it is not easy to start a business; there are not good business opportunities; they do not have the knowledge, skills and experience required to start a business and those people who do see good opportunities would not start a business for fear it might fail ([GEM, 2021](#); [Observatorio del Emprendimiento de España, 2021](#)). On the other hand, [Cabrer-Borrás and Rico-Belda \(2018\)](#) analyze the determinants of business survival in Spain and conclude that, *a priori*, it seems that in Spain, women tend to remain in their entrepreneurial activity longer than men.

Individuals were segmented according to whether or not they had created a company, in such a way that those who had created one were asked the degree to which triggering events had affected their entrepreneurial decision. By contrast, those individuals who had not started a company were questioned about the degree to which each of these events would affect them, so that they would finally make the decision to start.

### 3.2 Sample analysis

Data collection was carried out in September 2016 using the previously described questionnaire, which was self-administered via the web and sent to all graduates in the selected sample. At the end of the data collection period, a definitive sample with 227 valid responses was obtained. The sampling error for a confidence level of 95% and  $p = q = 50\%$  was  $\pm 6.4\%$ .

[Table 4](#) shows a description of the sample by age, gender and educational level. As can be seen, the distribution of the resulting sample was 48% women and 52% men. Regarding age, 33% were under 30 years old, 38% between 30 and 40 years old, and 29% over 40 years old ([Table 4](#)).

[Table 5](#) includes the distribution of the 227 graduates in the sample by field of study. The most numerous academic disciplines were those related to Economics, Business and Tourism and to Engineering and Architecture.

Of the 227 graduates, 111 (49%) confirmed that they had started or were in the process of creating a business and 116 (51%) had not yet created a company or made the final decision to do so. Of the 111 entrepreneurs in the sample, 74% had started between one and six companies in the analyzed period, and the remaining 26% were in the process. By sectors of entrepreneurial activity, the commercial sector represents the largest number of new companies (17%) compared to the primary sector (3%) and the industrial and scientific sector

Gender	Female	47.6%
	Male	52.4%
Age	<30	33.0%
	Between 30 and 40	40.1%
	>40	26.9%
Educational level	University Bachelor degree	49.8%
	University Postgraduate/Master	30.4%
	University Doctorate	7.5%

**Table 4.** Distribution of the total sample by gender, age and educational level

(4%), which account for the smallest proportion. The total of 213 initiatives (higher than 111 entrepreneurs) is explained because some entrepreneurs had created two or more businesses and because in this item, they could choose more than one option (Table 6).

Triggering events to be an entrepreneur

#### 4. Results

To test the hypotheses, the *t*-test has been used for related samples that compare the means of two variables of a single group. The differences between the values of each triggering event of entrepreneurial action have been calculated and whether the difference is significantly different from 0. The *t*-test has been carried out for each of the samples: sample of those who have started a business and sample for those who with the intention but have not yet done so.

The data for each type of event have been calculated as the average of the items of the associated events. The results of both samples are displayed in Tables 7 and 8 for the sample that has started companies and Tables 9 and 10 for the sample that has not.

For those who did set up a company, the most important triggering factors are:

- (1) Market acceptance of the product (3.97) rather than having support for the project (3.60), having found partners (3.41) or having accessed financing (3.12).

Academic discipline	%
Arts and humanities (Fine arts, Philosophy, History, Geography, Languages, ...)	10.6
Sciences (Biology, Physics, Chemistry, Mathematics, ...)	5.5
Social and legal sciences (Sociology, Law, Education, ...)	19.1
Economics, business, tourism (Business administration, accounting, Marketing, tourism, ...)	32.7
Engineering and architecture	23.1
Health Sciences (Medicine, Nursing, Pharmacy, Physiotherapy, ...)	9.0

**Table 5.**  
Distribution of the total sample by field of study

Activity sector	Num. of companies	%
Tourism	19	9
Technology	24	11
Social and cultural	28	13
Industrial and scientific	9	4
Agriculture, livestock, fishing	6	3
Commercial	36	17
Training	12	6
Other services	79	37
<i>Total</i>	<i>213</i>	<i>100</i>

**Table 6.**  
Distribution of the sample by activity sectors

Factor	Average
Product acceptance by the market	3.97
Unfavorable economic situation	3.91
Project support	3.60
Finding partners-staff	3.41
Access to financing	3.12

**Table 7.**  
Averages between triggering events of the sample who has started a company

ET

- (2) An unfavorable economic situation (3.91) rather than finding partners (3.41) or having accessed financing (3.12).
- (3) Having had support for the project (3.60) is more important than having financing (3.12).

Whereas those with entrepreneurial intentions but have not yet started a company, think that it would be more important to have (Table 9):

- (1) Market acceptance of the product (5.48) rather than finding partners (5.28), having support for the project (4.95) or having an unfavorable economic situation (4.72).
- (2) Having access to finance (5.47), finding partners (5.28), having project support (4.95) or having an unfavorable financial situation (4.72).
- (3) Finding partners (5.28) more than having support for the project (4.95) or an unfavorable economic situation (4.72).
- (4) Having support for the project (4.95) is more relevant than being in an unfavorable economic situation (4.72).

**Table 8.**

Differences between factors in the sample that has started a company

	Market acceptance of the product	Unfavorable economic situation	Support for the project	Finding partners-staff
Unfavorable economic situation	0.06 <i>ns</i>			
Project support	0.37 **	0.31 <i>ns</i>		
Finding partners-staff	0.56 **	0.50 *	0.19 <i>ns</i>	
Access to financing	0.85 ***	0.79 ***	0.48 **	0.29 <i>ns</i>

**Note(s):** Significance level: <0.01 \*\*\*, <0.05 \*\*, <0.1 \*; not significant “*ns*”

**Table 9.**

Averages between triggering events of the sample that has not started a company

Factor	Average
Product acceptance by the market	5.48
Access to financing	5.47
Finding partners-staff	5.28
Project support	4.95
Unfavorable economic situation	4.72

**Table 10.**

Differences between factors in the sample that has not started a company

	Market acceptance of the product	Unfavorable economic situation	Support for the project	Finding partners-staff
Unfavorable economic situation	0.01	<i>ns</i>		
Project support	0.20	** 0.19 **		
Find partners-staff	0.52	*** 0.52 ***	0.33 ***	
Access to financing	0.76	*** 0.76 ***	0.56 ***	0.23 **

**Note(s):** Significance level: <0.01 \*\*\*, <0.05 \*\*, <0.1 \*; not significant “*ns*”

Table 11 shows a summary of the results obtained for the two samples and for each of the hypotheses raised in this work.

From the results obtained, it is observed that hypothesis 1 is fulfilled, since for graduates who have started a company, having the product or service accepted by the market (3.97) is more relevant than having access to finance (3.12). This result coincides with that obtained by Liang and Dunn (2007), who observed that financial triggers were less relevant than those associated with the identification of opportunities or solutions to needs. Moreover, Maâlej and Cabagnols (2020) also obtain from their study that market opportunities are the main sources of contingencies conducive to entrepreneurial behavior. For people who have not started a company, having the product or service accepted by the market (5.48) is only slightly more relevant than having access to finance (5.47), although it is not a significant difference so hypothesis 2 cannot be confirmed. In any case, it is observed that the difference between financial triggering events and those of market acceptance of the product and/or service is greater for entrepreneurs who have business experience.

Regarding hypotheses 3 and 4, both hypotheses are confirmed, since for people who have started a company, having support for the project (3.60) is more relevant than having access to finance (3.12). On the other hand, for people who have not started a company, having access to finance (5.47) is more relevant than having support for the project (4.95). This result shows that after the experience of starting a company, the perception of the importance of financing is lower than at the beginning of the process. On the contrary, factors like having support for the development of the project or mentoring are more valued by experienced entrepreneurs.

In the case of hypothesis 5, it is observed that for people who have started a company, finding partners and suitable personnel for the project (3.41) is more relevant than having access to finance (3.12), although the difference is not significant, so this hypothesis is not confirmed. On the contrary, if hypothesis 6 is compared, for people who have not started a company, having access to finance (5.47) is more relevant than finding partners and suitable personnel for the project (5.28). Thus, for people who do not have entrepreneurial experience, access to finance is more important than the search for partners and/or adequate personnel, whereas experienced entrepreneurs value more positively having suitable partners and/or personnel.

For people who have started a company, having an unfavorable economic situation (3.91) is more relevant than having support for the project (3.60), but the difference is not significant, and we cannot confirm H7. While for people who have not started a company, having support for the project (4.95) is more relevant than having an unfavorable economic situation (4.72). Therefore, hypothesis 8 is confirmed, showing that having an unfavorable economic situation is one of the most relevant push factors for the development of entrepreneurship projects (Van der Zwan *et al.*, 2016).

Groups of triggering events	Have started a company				Have not started a company			
	Hypothesis	+	Mean	Significance	Hypothesis	+	Mean	Significance
Market acceptance of the product and/or service	H1	+	3.97	***	H2	+	5.48	Ns
Access to finance		-	3.12			-	5.47	
Project support	H3	+	3.60	**	H4	-	4.95	***
Access to finance		-	3.12			+	5.47	
Finding suitable partners and staff	H5	+	3.41	ns	H6	-	5.28	**
Access to finance		-	3.12			+	5.47	
Unfavorable economic situation	H7	+	3.91	ns	H8	-	4.72	**
Project support		-	3.60			+	4.95	
Unfavorable economic situation	H9	+	3.91	*	H10	-	4.72	***
Finding suitable partners and staff		-	3.41			+	5.28	

**Table 11.**  
Summary of results

---

Finally, [hypotheses 9 and 10](#) are confirmed, to the extent that for people who have started a company having an unfavorable economic situation (3.91) is more relevant than finding partners and/or personnel suitable for the project (3.41). While for people who have not started a company, finding partners and/or suitable personnel for the project (5.28) is more relevant than having an unfavorable economic situation (4.72). This result once again highlights the weight of push factors, linked to need, as a trigger for the start-up of business projects.

---

## 5. Conclusions and discussion

This work contributes to advancing in a very well-established line of research, which attempts to achieve a better understanding of how intention becomes action and, more specifically, on those events that favor this change in behavior. Starting from the idea that there are events with the capacity to promote the conversion of intention into action in an entrepreneurial process, this study has, first and foremost, attempted to identify these significant events. Subsequently, a comparative study was carried out of the influence that these triggering events have on a group of graduates who have not yet started a business initiative with respect to another group of people who have already created a company.

The results have allowed us to prepare a list of 14 triggering events assessed by a sample of individuals who expressed entrepreneurial intention. This sample includes both those who have started a business activity and those who have not yet done so. These 14 events are grouped into five groups to facilitate the analysis of the results: market acceptance of the product/service, access to financing, support for the project, finding suitable partners and personnel and unfavorable economic situation.

From the results obtained, we should highlight, at a general level, the great importance attributed to all factors by potential entrepreneurs who have not yet started their activity. This would seem to indicate that graduates who are in a start-up process, in general, overestimate the importance of triggering events. Thus, it is foreseeable that, once they have started the business, this importance will be relativized because of real experience. In this sense, and according to [Gibb \(2011\)](#), it is proposed to promote experiential learning linked to business management in higher education. In this sense, [Palalic et al. \(2017\)](#) measured the entrepreneurial intentions and orientations of a sample of 173 students from the International University of Sarajevo, finding that entrepreneurial experience is a key factor. [Kim and Jang \(2021\)](#) emphasize the importance of the collaboration between universities, governments and industry in academic entrepreneurship. According to [Sherman et al. \(2008\)](#), it is essential to design training programs in business management in universities that cut across all academic disciplines. On the other hand, it is observed that both groups agree on the events related to the market acceptance of the product and/or service. This seems to confirm the importance of investing efforts in higher education in evaluating potential products and/or services developed by students.

However, in relation to the rest of triggering events, important differences are detected in their perception and influence on the action of starting a business between graduates with entrepreneurial experience and those with the intention of starting but with no experience. This difference in valuation of triggering events is greater, in all cases, for those who have not yet started a company, though it is not homogeneous for all items. Thus, for example, the overvaluation by those who have yet to become entrepreneurs of events related to access to finance stands out. This result coincides with the approaches of [Krueger and Brazeal \(1994\)](#) and [Schindehutte et al. \(2000\)](#), who consider that the possibility of having, or not, sufficient financial resources for the implementation of a business project is one of the fundamental variables that may or may not motivate the development of a business idea. In this sense, one proposal is to promote meetings at universities with established entrepreneurs with the aim

of sharing their real experiences with students (Chen *et al.*, 2021). On the other hand, the great relevance for those with entrepreneurial experience of having a good team is obvious, both qualified personnel and partners who are aligned with the culture of the project. Similarly, graduates who have started business projects give more importance to having a network of contacts made up of other entrepreneurs, mentors and advisers who add value to the project. This analysis offers guidelines when designing useful programs in the field of entrepreneurship. In this sense, it seems that it would be much more effective in the medium term to base support policies, not so much on programs focused on aspects like giving awards or recognitions, or even financial incentives, but on measures such as the promotion of networking between existing companies and new entrepreneurs that could provide the necessary advice and technical support (Edelman *et al.*, 2008).

From the point of view of entrepreneurial education, the results obtained seem to value methodologies based on mentoring by consolidated entrepreneurs. Based on their experience, they can transmit to potential entrepreneurs their perceptions and views that are more adjusted to reality of the key factors when facing the entrepreneurial process and, therefore, of the main priorities to consider.

Finally, the results highlight that for experienced entrepreneurs, in addition to market acceptance of the product/service, the events that led to the start-up of their company are linked to an unfavorable economic situation. This shows that entrepreneurship out of necessity continues to be the most frequent cause of business creation (Dencker *et al.*, 2021). However, these types of enterprises arise to solve a specific situation in the short/medium term, so their long-term impact is less. Therefore, in universities, it is essential to promote entrepreneurship by opportunity in order to foster regional economic development (Block and Sandner, 2009; Devece *et al.*, 2016; Joensuu-Salo *et al.*, 2015). According to Lopes *et al.* (2020), this could make more sense in island regions, where there is a greater probability that higher education students become entrepreneurs than those in mainland regions.

Our findings could have practical implications for the design and implementation of institutional policies to promote entrepreneurial activity among higher education graduates. In particular, they are useful for a more effective design of advice and coaching programs. Indeed, it appears that business management education should be introduced in all disciplines, considering that the management education not only aims at providing administrative business skills but also promotes the development of entrepreneurship projects, as Aaltio (2008) proposed last decade. These programs should promote experiential learning and cut across all academic disciplines, emphasizing product and/or service design connected to market acceptance. Additionally, it would be necessary to differentiate programs focused on experienced and inexperienced graduate entrepreneurs as important differences have been detected in their perceptions of triggering events. In this sense, for example, programs focused on non-experienced entrepreneurs should emphasize the team or networking development and include mentoring and advice by consolidated entrepreneurs.

As for future lines of research, it is proposed, in response to some of the limitations observed in this paper, to increase the size of the sample analyzed, so that the study can be broadened, and different entrepreneurial behaviors by gender, educational level, sector and/or type of activities can be investigated. On the other hand, this research has been transversally designed, which limits causal inferences and requires further empirical studies based on long-term perspectives, especially considering any changes in the economic environment.

## References

- Aaltio, I. (2008), "Management education as an identity construction: the case of Estonia and its transition economy background", *International Journal of Entrepreneurship and Small Business*, Vol. 5 No. 1, pp. 83-99, doi: [10.1504/IJESB.2008.015955](https://doi.org/10.1504/IJESB.2008.015955).

- 
- Ajzen, I. (1991), "The theory of planned behavior", *Organizational Behavior and Human Decision Processes*, Vol. 50 No. 2, pp. 179-211, doi: [10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T).
- Ajzen, I. (2001), "Nature and operation of attitudes", *Annual Review of Psychology*, Vol. 52 No. 1, pp. 27-58, doi: [10.1146/annurev.psych.52.1.27](https://doi.org/10.1146/annurev.psych.52.1.27).
- Aouni, Z. and Surlémont, B. (2009), "Towards a model of the learning needs of the effective entrepreneur", *International Journal of Entrepreneurship and Small Business*, Vol. 8 No. 3, pp. 431-446, doi: [10.1504/IJESB.2009.025090](https://doi.org/10.1504/IJESB.2009.025090).
- Bernat, T., Korpysa, J. and Kunasz, M. (2008), *Przedsiębiorczość Studentów Studiów Dziennych – Raport Z Badań [Entrepreneurship of Full Time Students – Research report]*, Uniwersytet Szczeciński. Katedra Mikroekonomii, Szczecin.
- Block, J. and Sandner, P. (2009), "Necessity and opportunity entrepreneurs and their duration in self-employment: evidence from German micro data", *Journal of Industry, Competition and Trade*, Vol. 9 No. 2, pp. 117-137, doi: [10.1007/s10842-007-0029-3](https://doi.org/10.1007/s10842-007-0029-3).
- Bosma, N., Hill, S., Ionescu-Somers, A., Kelley, D., Guerrero, M. and Schott, T. (2021), *Global Entrepreneurship Monitor, 2020/2021 Global Report*, Global Entrepreneurship Research Association, London Business School, London.
- Cabrer-Borrás, B. and Rico Belda, P. (2018), "Survival of entrepreneurship in Spain", *Small Business Economics*, Vol. 51, pp. 265-278, doi: [10.1007/s11187-017-9923-1](https://doi.org/10.1007/s11187-017-9923-1).
- Castaño, M.S., Méndez, M.T. and Galindo, M.Á. (2016), "The effect of public policies on entrepreneurial activity and economic growth", *Journal of Business Research*, Vol. 69 No. 11, pp. 5280-5285, doi: [10.1016/j.jbusres.2016.04.125](https://doi.org/10.1016/j.jbusres.2016.04.125).
- Chen, S.H., Wang, W.T. and Lu, C.T. (2021), "Exploring the development of entrepreneurial identity in a learning-by-doing entrepreneurial project environment", *Education + Training*, Vol. 63 No. 5, doi: [10.1108/ET-07-2020-019](https://doi.org/10.1108/ET-07-2020-019).
- Curran, D., O'Gorman, C. and van Egeraat, C. (2016), "Opportunistic spin-offs in the aftermath of an adverse corporate event", *Journal of Small Business and Enterprise Development*, Vol. 23 No. 4, pp. 984-1008, doi: [10.1108/JSBED-05-2015-0058](https://doi.org/10.1108/JSBED-05-2015-0058).
- Czyżewska, M., Tomaka, A., Pitura, W., Przywara, B., Orenkiewicz, L. and Pado, K. (2008), "Przedsiębiorcze postawy młodych a zapotrzebowanie na finansowanie seed capital", *E-Finance: Financial Internet Quarterly, University of Information Technology and Management*, Rzeszów, Vol. 4, pp. 1-16.
- Dana, L.P. (2017), *Entrepreneurship in Western Europe: A Contextual Perspective*, WSP, New York, NY.
- Dana, L. and Dana, T. (2005), "Expanding the scope of methodologies used in entrepreneurship research", *International Journal of Entrepreneurship and Small Business*, Vol. 2 No. 1, doi: [10.1504/IJESB.2005.006071](https://doi.org/10.1504/IJESB.2005.006071).
- Das, T.K. and He, I.Y. (2006), "Entrepreneurial firms in search of established partners: review and recommendations", *International Journal of Entrepreneurial and Behaviour Research*, Vol. 12 No. 3, pp. 114-143, doi: [10.1108/13552550610667422](https://doi.org/10.1108/13552550610667422).
- Degeorge, J.M. and Fayolle, A. (2011), "The entrepreneurial process trigger: a modelling attempt in the French context", *Journal of Small Business and Enterprise Development*, Vol. 18 No. 2, pp. 251-277, doi: [10.1108/14626001111127061](https://doi.org/10.1108/14626001111127061).
- Dencker, J., Bacq, S., Gruber, M. and Haas, M. (2021), "Reconceptualizing necessity entrepreneurship: a contextualized framework of entrepreneurial processes under the condition of basic needs", *Academy of Management Review*, Vol. 46 No. 1, pp. 60-79, doi: [10.5465/amr.2017.0471](https://doi.org/10.5465/amr.2017.0471).
- Devece, C., Peris-Ortiz, M. and Rueda-Armengot, C. (2016), "Entrepreneurship during economic crisis: success factors and paths to failure", *Journal of Business Research*, Vol. 69 No. 11, pp. 5366-5370, doi: [10.1016/j.jbusres.2016.04.139](https://doi.org/10.1016/j.jbusres.2016.04.139).
- Edelman, L., Manolova, T. and Brush, C. (2008), "Entrepreneurship education: correspondence between practices of nascent entrepreneurs and textbook prescription for success", *Academy of*



---

*Management Learning and Education*, Vol. 7 No. 1, pp. 56-70, doi: [10.5465/AMLE.2008.31413862](https://doi.org/10.5465/AMLE.2008.31413862).

Triggering  
events to be an  
entrepreneur

Elifneh, Y.W. (2015), "What triggers entrepreneurship? The necessity/opportunity dichotomy: a retrospection", *Journal of Poverty, Investment and Development*, Vol. 15 No. 15, pp. 22-27, available at: <https://core.ac.uk/download/pdf/234695296.pdf>.

Fayolle, A. (2013), "Personal views on the future of entrepreneurship education", *Entrepreneurship and Regional Development*, Vol. 25 Nos 7-8, pp. 692-701, doi: [10.1080/08985626.2013.821318](https://doi.org/10.1080/08985626.2013.821318).

Fishbein, M. and Ajzen, I. (1975), *Belief, Attitude, Intention and Behaviour: an Introduction to Theory and Research*, Addison-Wesley, Reading, MA.

Gartner, W., Shaver, K., Gatewood, E. and Katz, J. (1994), "Finding the entrepreneur in entrepreneurship", *Entrepreneurship Theory and Practice*, Vol. 18 No. 3, pp. 5-9, doi: [10.1177/104225879201700110](https://doi.org/10.1177/104225879201700110).

Gelderen, M. and Jansen, P. (2006), "Autonomy as start-up motive", *Journal of Small Business and Enterprise Development*, Vol. 13 No. 1, pp. 23-32, doi: [10.1108/14626000610645289](https://doi.org/10.1108/14626000610645289).

Giacomin, O., Janssen, F., Guyot, J. and Lohest, O. (2011), *Opportunity and/or Necessity Entrepreneurship? the Impact of the Socio-Economic Characteristics of Entrepreneurs*, MPRA Paper No. 29506, Germany: University Library of Munich.

Gibb, A. (2011), "Concepts into practice: meeting the challenge of development of entrepreneurship educators around an innovative paradigm", *International Journal of Entrepreneurship Behavior and Research*, Vol. 17 No. 2, pp. 146-165, doi: [10.1108/13552551111114914](https://doi.org/10.1108/13552551111114914).

Global Entrepreneurship Monitor, GEM (2021), *Global Report 2020/2021*, Global Entrepreneurship Research Association, London Business School, London.

Gnyawali, D. and Fogel, D. (1994), "Environments for entrepreneurship development: key dimensions and research implications", *Entrepreneurship Theory and Practice*, Vol. 18 No. 4, pp. 43-62, doi: [10.1177/104225879401800403](https://doi.org/10.1177/104225879401800403).

Gu, W., Wang, J., Hua, X. and Zhongdi, L. (2021), "Entrepreneurship and high-quality economic development: based on the triple bottom line of sustainable development", *International Entrepreneurship Management Journal*, Vol. 17, pp. 1-17, doi: [10.1007/s11365-020-00684-9](https://doi.org/10.1007/s11365-020-00684-9).

Heinonen, J. and Poikkijoki, S. (2006), "An entrepreneurial-directed approach to entrepreneurship education: mission impossible?", *Journal of Management Development*, Vol. 25 No. 1, pp. 80-94, doi: [10.1108/02621710610637981](https://doi.org/10.1108/02621710610637981).

Iglesias-Sánchez, P.P., Jambriño-Maldonado, C., Velasco, A.P. and Kokash, H. (2016), "Impact of entrepreneurship programmes on university students", *Education + Training*, Vol. 58 No. 2, pp. 209-228, doi: [10.1108/ET-01-2015-0004](https://doi.org/10.1108/ET-01-2015-0004).

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, doi: [10.1108/ET-11-2014-0142](https://doi.org/10.1108/ET-11-2014-0142).

Kaffka, G. and Krueger, N. (2018), "The entrepreneurial mindset: entrepreneurial intentions from the entrepreneurial event to neuroentrepreneurship", in Javadian, G., Gupta, V., Dutta, D., Guo, G., Osorio, A. and Ozkazanc-Pan, B. (Eds), *Foundational Research in Entrepreneurship Studies*, Palgrave Macmillan, Cham, doi: [10.1007/978-3-319-73528-3\\_10](https://doi.org/10.1007/978-3-319-73528-3_10).

Kim, L. and Jang, D.H. (2021), "Culturing atmosphere for spontaneous innovation: academic action and triple-helix dynamics in South Korea", *Higher Education Policy*, Vol. 34, pp. 429-455, doi: [10.1057/s41307-019-00143-3](https://doi.org/10.1057/s41307-019-00143-3).

Kisubi, M., Bonuke, R. and Korir, M. (2021), "Entrepreneurship education and self-employment intentions: a conditional effect of entrepreneurial self-efficacy evidence from a developing country", *Cogent Business and Management*, Vol. 8, doi: [10.1080/23311975.2021.1938348](https://doi.org/10.1080/23311975.2021.1938348).

Ko, E. and McKelvie, A. (2018), "Signaling for more money: the roles of founders' human capital and investor prominence in resource acquisition across different stages of firm development", *Journal of Business Venturing*, Vol. 33 No. 4, pp. 438-454, doi: [10.1016/j.jbusvent.2018.03.001](https://doi.org/10.1016/j.jbusvent.2018.03.001).

- 
- Krueger, N. (2008), "Entrepreneurial resilience: real and perceived barriers to implementing entrepreneurial intentions", Available at SSRN, doi: [10.2139/ssrn.1155269](https://doi.org/10.2139/ssrn.1155269).
- Krueger, N.F. and Brazeal, D.V. (1994), "Entrepreneurial potential and potential entrepreneurs", *Entrepreneurship Theory and Practice*, Vol. 18 No. 3, pp. 91-104, doi: [10.1177/104225879401800307](https://doi.org/10.1177/104225879401800307).
- Kyrö, P. and Carrier, C. (2005), "Entrepreneurial learning in universities: bridges across borders", in Kyrö, P. and Carrier, C. (Eds), *The Dynamics of Learning Entrepreneurship in a Cross-Cultural University Context*, University of Tampere, Hameenlinna, pp. 14-43.
- Liang, K. and Dunn, P. (2007), "Triggers of decisions to launch a new venture - is there any different between pre-business and in-business entrepreneurs?", *Academy of Entrepreneurship Journal*, Vol. 13, pp. 79-96.
- Lopes, J., Teixeira, S.J., Ferreira, J.J., Silveira, P., Farinha, L. and Lussuamo, J. (2020), "University entrepreneurial intentions: mainland and insular regions—are they different?", *Education + Training*, Vol. 62 No. 2, pp. 81-99, doi: [10.1108/ET-03-2019-0055](https://doi.org/10.1108/ET-03-2019-0055).
- Lortie, J. and Castogiovanni, G. (2015), "The theory of planned behavior in entrepreneurship research: what we know and future directions", *International Entrepreneurship and Management Journal*, Vol. 11 No. 4, pp. 935-957, doi: [10.1007/s11365-015-0358-3](https://doi.org/10.1007/s11365-015-0358-3).
- Maálej, A. and Cabagnols, A. (2020), "The determinants of the entrepreneurial triggering: a study of the graduated students from the National School of Engineering of Sfax", *Entrepreneurship Education*, Vol. 3 No. 1, pp. 37-55, doi: [10.1007/s41959-020-00023-7](https://doi.org/10.1007/s41959-020-00023-7).
- Marulanda Valencia, F., Montoya, I. and Vélez, J. (2014), "Teoría Motivacionales en el estudio del emprendedor", *Revista Científica Pensamiento Y Gestión*, Vol. 36, pp. 204-236, doi: [10.14482/pege.36.5571](https://doi.org/10.14482/pege.36.5571).
- Mayhew, M.J., Simonoff, J.S., Baumol, W.J., Wiesenfeld, B.M. and Klein, M.W. (2012), "Exploring innovative entrepreneurship and its ties to higher educational experiences", *Research in Higher Education*, Vol. 53 No. 8, pp. 831-859, doi: [10.1007/s11162-012-9258-3](https://doi.org/10.1007/s11162-012-9258-3).
- Medeiros, V., Marques, C., Galvão and, A.R. and Braga, V. (2020), "Innovation and entrepreneurship as drivers of economic development: differences in European economies based on quadruple helix model", *Competitiveness Review*, Vol. 30 No. 5, pp. 681-704, doi: [10.1108/CR-08-2019-0076](https://doi.org/10.1108/CR-08-2019-0076).
- Mühlböck, M., Warmuth, J., Holienka, M. and Kittel, B. (2018), "Desperate entrepreneurs: no opportunities, no skills", *International Entrepreneurship and Management Journal*, Vol. 14 No. 4, pp. 975-997, doi: [10.1007/s11365-017-0472-5](https://doi.org/10.1007/s11365-017-0472-5).
- Observatorio del Emprendimiento de España (2021), *Global Entrepreneurship Monitor*, Informe GEM España 2020-2021. Ed, Universidad de Cantabria, Spain.
- Palalic, R., Ramadani, V., Dilovic, A., Dizdarevic, A. and Ratten, V. (2017), "Entrepreneurial intentions of university students: a case-based study", *Journal of Enterprising Communities*, Vol. 11 No. 3, pp. 393-413, doi: [10.1108/JEC-12-2016-0046](https://doi.org/10.1108/JEC-12-2016-0046).
- Rauch, A. and Hulsink, W. (2015), "Putting entrepreneurship education where the intention 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, doi: [10.5465/amle.2012.0293](https://doi.org/10.5465/amle.2012.0293).
- Ruiz-Rosa, I., Gutiérrez-Taño, D. and García-Rodríguez, F.J. (2021), "Project-based learning as a tool to foster entrepreneurial competences", *Culture and Education*, Vol. 33 No. 2, pp. 316-344, doi: [10.1080/11356405.2021.1904657](https://doi.org/10.1080/11356405.2021.1904657).
- Schindehutte, M., Morris, M. and Kuratko, D. (2000), "Triggering events, corporate entrepreneurship and the marketing function", *Journal of Marketing Theory and Practice*, Vol. 8 No. 2, pp. 18-30, doi: [10.1080/10696679.2000.11501865](https://doi.org/10.1080/10696679.2000.11501865).
- Shapiro, A. (1975), "The displaced, uncomfortable entrepreneur", *Psychology Today*, Vol. 9 No. 11, pp. 83-88.

- 
- Shapero, A. and Sokol, L. (1982), "The social dimensions of entrepreneurship", University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship, SSRN available at: <https://ssrn.com/abstract=1497759>.
- Sherman, P.S., Sebora, T. and Digman, L.A. (2008), "Experiential entrepreneurship in the classroom: effects of teaching methods on entrepreneurship career choice intentions", *Journal of Entrepreneurship Education*, Vol. 11 No. 29, pp. 29-42.
- Shirokova, G., Osiyevskyy, O. and Bogatyreva, K. (2016), "Exploring the intention-behavior link in student entrepreneurship: moderating effects of individual and environmental characteristics", *European Management Journal*, Vol. 34 No. 4, pp. 386-399, doi: [10.1016/j.emj.2015.12.007](https://doi.org/10.1016/j.emj.2015.12.007).
- Siegel, D.S. and Wright, M. (2015), "Academic entrepreneurship: time for a rethink?", *British Journal of Management*, Vol. 26 No. 4, pp. 582-595, doi: [10.1111/1467-8551.12116](https://doi.org/10.1111/1467-8551.12116).
- Staniewski, M. and Awruk, K. (2015), "Motivating factors and barriers in the commencement of one's own business for potential entrepreneurs", *Economic Research-Ekonomska Istraživanja*, Vol. 28 No. 1, pp. 583-592, doi: [10.1080/1331677X.2015.1083876](https://doi.org/10.1080/1331677X.2015.1083876).
- Van der Zwan, P., Thurik, R., Verheul, I. and Hessels, J. (2016), "Factors influencing the entrepreneurial engagement of opportunity and necessity entrepreneurs", *Eurasian Business Review*, Vol. 6, pp. 273-295, doi: [10.1007/s40821-016-0065-1](https://doi.org/10.1007/s40821-016-0065-1).
- Van Gelderen, M.W., Kautonen, T. and Fink, M. (2015), "From entrepreneurial intentions to actions: selfcontrol and action related doubt, fear, and aversion", *Journal of Business Venturing*, Vol. 30 No. 5, pp. 655-673, doi: [10.1016/j.jbusvent.2015.01.003](https://doi.org/10.1016/j.jbusvent.2015.01.003).
- Veciana, J.M., Aponte, M. and Urbano, D. (2005), "University students' attitudes towards entrepreneurship: a two countries comparison", *International Entrepreneurship and Management Journal*, Vol. 1 No. 2, pp. 165-182, doi: [10.1007/s11365-005-1127-5](https://doi.org/10.1007/s11365-005-1127-5).
- Vinogradov, E., Kolvereid, L. and Timoshenko, K. (2013), "Predicting entrepreneurial intentions when satisfactory employment opportunities are scarce", *Education + Training*, Vol. 55 No. 7, pp. 719-737, doi: [10.1108/ET-06-2012-0067](https://doi.org/10.1108/ET-06-2012-0067).
- Volery, T., Mueller, S. and Von Siemens, B. (2015), "Entrepreneur ambidexterity: a study of entrepreneur behaviors and competencies in growth oriented small and medium-sized enterprises", *International Small Business Journal*, Vol. 33 No. 2, pp. 109-129, doi: [10.1177/0266242613484777](https://doi.org/10.1177/0266242613484777).
- Wagdi, O. and Hasaneen, A. (2019), "Obstacles and success factors for entrepreneurship: a comparative analysis between Egypt and Nigeria", *Entrepreneurship and Sustainability Issues*, Vol. 7 No. 2, pp. 962-976, doi: [10.9770/jesi.2019.7.2\(12\)](https://doi.org/10.9770/jesi.2019.7.2(12)).
- Wennekers, A.R.M., Noorderhaven, N.G., Hofstede, G. and Thurik, A.R. (2001), "Cultural and economic determinants of business ownership across countries", *Frontiers of Entrepreneurship Research*, Babson College, MA.
- Williams, C., Rounds, J. and Rodgers, P. (2009), "Evaluating the motives of informal entrepreneurs: some lessons from Ukraine", *Journal of Developmental Entrepreneurship*, Vol. 14 No. 1, pp. 59-71, doi: [10.1142/S1084946709001144](https://doi.org/10.1142/S1084946709001144).
- Yaseen, A., Saleem, M.A., Zahra, S. and Israr, M. (2018), "Precursory effects on entrepreneurial behaviour in the agri-food industry", *Journal of Entrepreneurship in Emerging Economies*, Vol. 10 No. 1, pp. 2-22, doi: [10.1108/JEEE-08-2016-0029](https://doi.org/10.1108/JEEE-08-2016-0029).

### About the authors

Inés Ruiz-Rosa is a full-time professor teaching in the Department of Economy, Accounting and Finance at the University of La Laguna. She is member of the Research Group "Enterprise and Society" since September 2010. She has held various management positions within the university field between them, director (2007–2010 and 2015–2019) of the Entrepreneurship Development Program of the University of La Laguna (Emprende.ull). She is director of the DISA Foundation Chair of Young Entrepreneurs of the University of La Laguna since January 2016. Journal Rank. Inés Ruiz-Rosa is the corresponding author and can be contacted at: [ci Ruiz@ull.edu.es](mailto:ci Ruiz@ull.edu.es)

---

Desiderio Gutiérrez-Taño is an Industrial Engineer and PhD. He is a professor of Marketing at the University of La Laguna, teaching Tourist Marketing and Business Model Innovation. His research interests include the attitude of residents toward tourism and the entrepreneurship. He is currently researcher of the research group Business and Society and Deputy Director of the Young Entrepreneurs Chair. He has worked as a consultant for public and private organizations.

Francisco J. García-Rodríguez is a Senior lecturer in Business Management and Entrepreneurship at the Department of Economics and Business Management at the University of La Laguna (Spain). He has been Vice Chancellor of Societal Relations of the University of La Laguna and currently is main researcher of the research group Business and Society. He has been Director of the Young Entrepreneurs Chair and director of the Master in Entrepreneurship.

Esperanza Gil-Soto is a Senior lecturer in the Business and Economic History Department at the Universidad de La Laguna (Spain). She holds her PhD in Business Administration from the same University in 2005. Some of their main lines of research are focused on entrepreneurship, mainly in entrepreneurial intention and entrepreneurial education. She has disclosed the results of her research work in accredited international congresses and published them in recognized impact publications.