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"Entrepreneurial intention models and female entrepreneurship"

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1. Introduction

During the last years, Greece is undergoing a major economic crisis which is associated with a deep and prolonged depression both in economic and social terms. According to the OECD (2016), the GDP has fallen significantly, public debt has increased, poverty and especially youth poverty has risen, life satisfaction has dropped, unemployment and income inequality have increased. Entrepreneurship has also been affected in multiple ways in the country, by the current economic crisis. Greeks show low intentions to start a business (8,3%) compared to other European countries, which can partly be explained by the fact that few people see good opportunities (14,2%) for starting businesses (Ioannidis et al., 2016;Kelley et al 2016).

On the other hand, entrepreneurship is also seen as a way out of the economic crisis as start-ups and entrepreneurial activities have proven to accelerate structural change, to improve the competitive position of a nation in the global business environment, and to create new jobs (Ripsas, 1998). Compared to established firms, start-ups are less resistant to change, and they are often more flexible and innovative. Entrepreneurs play a central role in the process of creative destruction (Schumpeter, 1934) (understood as *"the devaluation of still technically functioning products or services which goes hand-in-hand with the introduction of innovative products and production processes"* (Volkmann et al 2010, p.6), by recognizing new opportunities and turning them into business ideas, which is especially important in periods of economic crises (Schaper and Volery, 2007). As stated by Alison Coleman in Forbes *"While the Euro crisis devastated the Greek economy, it also forced a change in the perception of entrepreneurship, with the need to restore growth through entrepreneurship becoming critical. Potential was identified in various sectors and, with a dearth of career alternatives, entrepreneurship was seen as the way forward for Greece."* (Forbes, 2014).

In this unstable economic climate raising the entrepreneurial intentions of the Greek population is imperative, as the intention to start a company is a central part of the entrepreneurial process and an immediate antecedent of actual behaviour (Ajzen, 1991). Meta-analyses on the intentions-behaviour/action gap confirm this, as up to 39% of the variance in actual behaviour can be explained by intentions (Bullough, 2014). Therefore, entrepreneurial intentions are one of the best predictors of planned behaviour (Krueger and Carsrud, 1993). Raising intentions in an economic crisis era, however can be a major challenge for governments, because the features of the economic setting unavoidably worsen and people see fewer business opportunities. On the other hand, such an economic climate can possibly boost entrepreneurial activities. According to Landini et al. (2005) "*when unemployment is high and raising, in fact, the choice to become an entrepreneur depends also on the extent to which self-employment is perceived as a viable second- best alternative to unemployment."* (p. 12). So, the economic crisis may have a counteractive effect on entrepreneurship.

It is also imperative to identify drives and barriers towards the formation of entrepreneurial intentions both for males and females. Ahl (2006) pointed out numerous limitations regarding research in entrepreneurship: a) the one-sided empirical focus on men, b) the use of male-gendered measuring instruments and c) the lack of theoretical grounding. Furthermore, examining the reasons for gender differences in entrepreneurial intentions, will support the understanding of the lower entrepreneurial activity of women compared to men (Ljunggren and Kolvereid,1996) and some factors that impede females

from becoming entrepreneurs can be overcome very early in the entrepreneurial process. Then measures can be taken in order to foster female entrepreneurship and limit the gender gap in entrepreneurial activity. Furthermore, by researching potential and not existing entrepreneurs the "success" bias can be avoided or overcome and policy makers and educators can still intervene in order to raise people's entrepreneurial intentions and in extension future entrepreneurial activity. Alsos and Ljunggren (1998) argue that when researching existing entrepreneurs *"the gender imbalance is already materialized, and the (male and female) respondents in the studies are only those who succeeded in setting up a business"* (p.137).

We structure this report as follows. First, we provide an overview of entrepreneurship in Greece over the years and female entrepreneurship in particular. Then we continue, with an extended literature review on entrepreneurial intentions and the models used in the literature to explain entrepreneurial intentions. Third, we look in detail at several antecedents of entrepreneurial intentions that have been proposed in the literature and derive our integrated research model. Forth, we detail the research method and present the results. Finally, we discuss our findings and state the implications.

2. Literature review

2.1. Entrepreneurship in Greece

The attitude of the Greek society towards entrepreneurship is not characterized as positive, and Greeks associate entrepreneurship mainly with large and established companies. Until recently the entrepreneur has often been labeled as a "fraud man or an adventurer or a manipulator of the market" and profit resulting from entrepreneurial activities has been considered as negative and reprehensible. Furthermore, entrepreneurial activities occasionally were related with an exercise of pressure towards political powers in order to have certain benefits or privileges, which resulted in the creation of large distortions in the competition and in the prosperity of enterprises and employees. In such a climate, young people were kept from engaging in entrepreneurial activities. However, this situation and perception of entrepreneurship in Greece has changed radically, allowing entrepreneurs to envision their future without the distortions of past and providing the benefit of equal opportunities to all. (Barsakelis et al., 2010).

The ongoing economic crisis in Greece, as expected, drastically affects entrepreneurship in the country (Ioannidis et al., 2016; Kelley et al., 2016). Greeks show low intentions to start a business (8,3%) compared to other European countries, which can partly be explained by the fact that few people see good opportunities (14,2%) for starting businesses. Entrepreneurs in Greece are self-confident about their capabilities towards entrepreneurship (46.8%) in comparison to entrepreneurs in other European countries, but at the same time, they have the lowest perceptions about opportunities relative to new business starts and the fear of failure is one of the highest in Greece (46.9%) among all economies in the GEM study. This continues to be an ongoing pattern over the past years. Furthermore, more than half of adults (61%) believe entrepreneurship is a good career choice and 68% indicate a high status to successful entrepreneurs, whereas fewer (38%) see positive images of entrepreneurs in the media (Kelley et al., 2016).

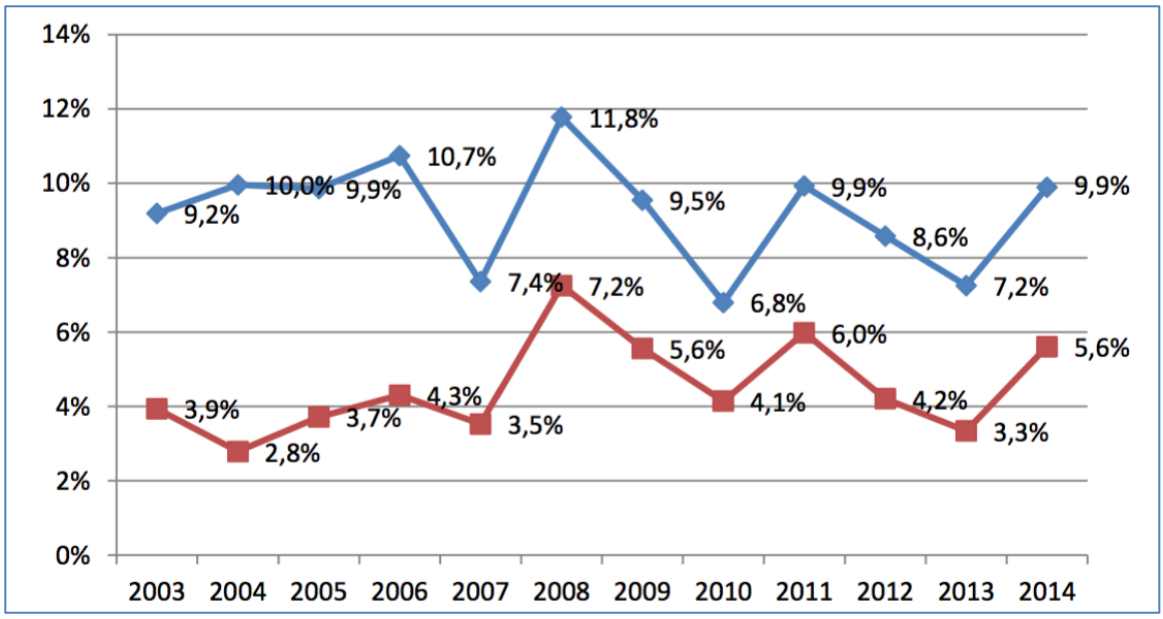
As far as demographics are concerned, one-fourth of the entrepreneurs fall into the 45–54 year category, whereas there are few young entrepreneurs (18-24 years old).

Possible explanations could be graduate studies and military service for the male population of the study. Besides these, it could be that older people not only see more entrepreneurial opportunities, but they also have the capacity to pursue them. The majority of Greek early stage entrepreneurs (50%) holds a degree from higher education institute. The percentage of entrepreneurs who have completed secondary education 45.5% and only 4.5% have completed basic training. This means that knowledge based entrepreneurship is feasible due to the high skills and knowledge of early stage entrepreneurs.

In 2014, the total early-stage entrepreneurship (TEA) in Greece, which includes nascent (people involved in setting up a business) and new entrepreneurs (owner-manager of a new business up to 3.5 years old), increased significantly from only 5.2% in 2013 to 7.8% in 2014, at levels higher than the long-term average of the index as it can be seen in Figure 6. In 2009, TEA, dropped to 7.5% from 9.5% in 2008, while in 2010 it dropped even further to 5.5%. This substantial decrease in 2010 is a reflection of the debt crisis that permeated the country in the spring of 2010 and made it difficult for entrepreneurs to access finance (Kelley et al., 2011). The analysis of the 2015 data shows a further decrease in the TEA rate to 6.9% which however is in accordance with the long-term average (see Figure 6). This fact may signal a possible mitigation of uncertainty of starting and doing business in Greece brought about by the economic crisis (Ioannidis et al., 2016).

According to the latest report on women entrepreneurship published by GEM in 2015, in Greece, in addition to the gender gap in entrepreneurial intentions, with men showing higher intentions than women, there is a gender gap also in TEA and established activity and this trend is consistent throughout all years that Greece participates in GEM. In 2014, the level of female participation in early-stage entrepreneurship was 5.6% and the level of male participation was 9.9%. In 2009, the level of female participation in early-stage entrepreneurship was 6% and was lower compared to the year before (7.7%). The evolution of female and male TEA can be found in Figure 1.

Figure 1: The evolution of female and male TEA, Greece (2003-2014)

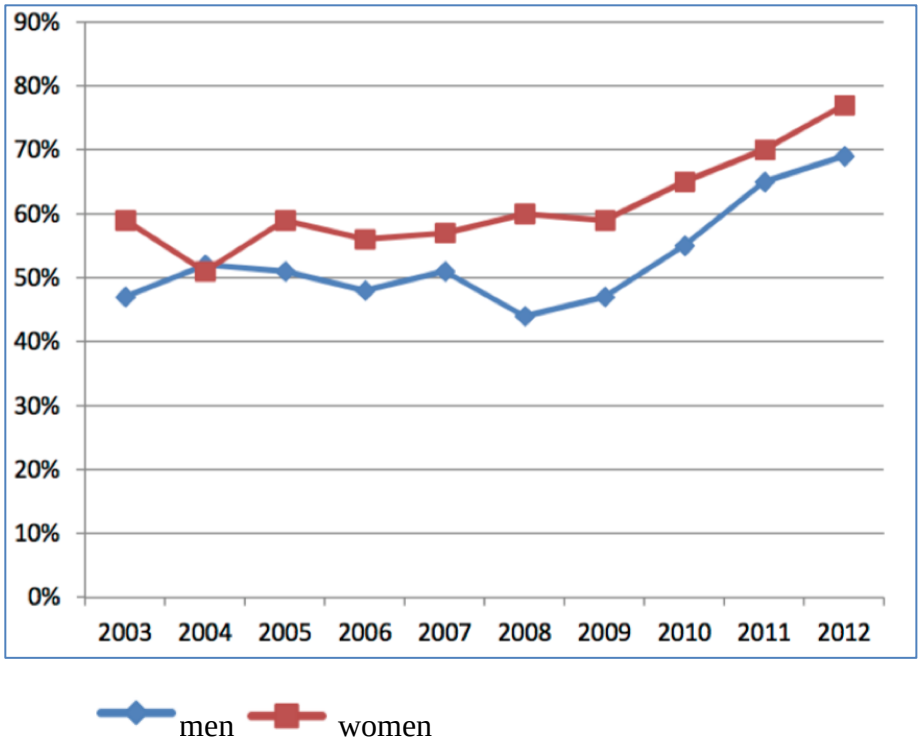


Men (TEA) in the entire male population Women (TEA) in the entire female population

Source: Ioannidis et al. (2016), p. 40

Necessity entrepreneurship in Greece appears stronger in female early stage entrepreneur's early stages than their male counterparts. The economic crisis may have pushed women towards entrepreneurship, because of the associated unemployment and the need to earn an income to support their facilities. Women in Greece seem to have lower perceptions as to their capacity and skills to undertake entrepreneurial initiatives than men and a higher fear of failure (77% for women and 69% for men) as shown in the next figure(Ioannidis and Giotopoulos, 2014).

Figure 2: Evolution of fear of failure by gender



Source: Ioannidis and Giotopoulos, 2014, p. 69

Women seem to engage in entrepreneurial activities later than men, they have a similar educational background as men and perceive to a smaller percentage (50%) than men (68%) entrepreneurship as a good career choice (Ioannidis and Giotopoulos, 2014). Female Greek entrepreneurs mainly run their business in consumer-oriented services and rarely in high-tech sectors and they perceive their products or services to be less innovative than men and use marginally more than men new technologies in their businesses. The vast majority of both men (46.51%) and women (42.86%) entrepreneurs state that their businesses are not export-oriented. 9.52% of female entrepreneurs indicate that 76-100% of their sales comes from exports, while the corresponding figure for men is just under 7%.

2.2. Entrepreneurial intentions

A large part of what is called entrepreneurial activity is a direct outcome of repeated attempts to exercise control over the entrepreneurial process, in order to achieve in creating a business. There are several obstacles that must be overcome so as to succeed in this process and therefore there is a need for subsequent actions over a considerable period of time, actions that are clearly intentional (Shaver et al., 2001). Scholars argue that entrepreneurship is exactly the type of planned behavior for which intention models are ideally suitable (Bird, 1988), because intentions have a profound effect and are

usually determinants of most entrepreneurial behavior (Krueger and Carsrud, 1993). Furthermore, intentions are central to understanding entrepreneurship, as they are the first step in the sustained and long-term process of starting a new business (Krueger and Carsrud, 1993).

The intention to start a company is a central part of the entrepreneurial process and an immediate antecedent of actual behavior (Ajzen, 1991). Meta-analyses on the intentions-behavior/action gap confirm this, as up to 39% of the variance in actual behavior can be explained by intentions (Bullough, 2014). Therefore, entrepreneurial intentions are one of the best predictors of planned behavior (Krueger and Carsrud, 1993), as opposed to attitudes, beliefs, demographics or personality (Kolvereid, 1996; Krueger and Carsrud, 1993, Krueger et al.,2000). Intentions capture the degree to which people are willing to put an effort in order to perform a behavior and show the motivational factors that affect the behavior (Ajzen, 1991). Bird (1988) defines intentionality as *"a state of mind directing a person's attention (and therefore experience and action) toward a specific object (goal) or a path in order to achieve something (means)"* (p.442). Based on this definition of Bird, Souitaris, et al. (2007) define entrepreneurial intentions as the state of mind, which directs a person's attention and action towards becoming self-employed as opposed to becoming an employee. Following this definition entrepreneurial intentions are very important because they can be a strong indicator not only of entrepreneurial behavior such as becoming self-employed or starting a business, but also of entrepreneurial success. Another simpler definition of entrepreneurial intentions is, the intention of an individual to start a new business (Krueger, 2009).

Early factors that were used to explain differences in entrepreneurial intentions among individuals, are related to individual-level factors such as demographic and psychological traits. For example, many studies show significant higher levels in entrepreneurial intentions for males, as compared to females (e.g., Laspita et al., 2007; Scheiner et al., 2008; Díaz-García and Jiménez-Moreno, 2010). As far as psychological traits are concerned, Douglas and Shepherd (2002) show for example, that individuals with a strong risk-taking propensity are particularly oriented towards undertaking entrepreneurial activities. Other personal-level variables, such as perceived skills and perceived barriers towards entrepreneurship may be associated with entrepreneurial intentions (Dickson et al., 2008). Skills can stimulate creativity and the recognition of opportunities and, therefore, could lead to the formation of entrepreneurial activities (Liñán et al., 2011). Parents, as a major source of the socialization process for a child and as people that a child repeatedly observes, have often been suggested to influence their children's career choice through the process of role modeling (Matthews and Moser, 1996) and entrepreneurial intentions specifically (Laspita et al., 2012). The role of entrepreneurship education in forming entrepreneurial intentions has also been studied in the entrepreneurship research. In many cases though, results are contradictive and sometimes even confusing (Slavtchev et al., 2012).

Despite the important role of entrepreneurial intentions research up to now, on the one hand, has mainly been focused on existing entrepreneurs and not on potential entrepreneurs and on the other hand, scholars up to now have a rather limited understanding of the factors or of the processes through which entrepreneurial intentions develop and become existent. In this sense, studies suffer from the bias of over-selecting

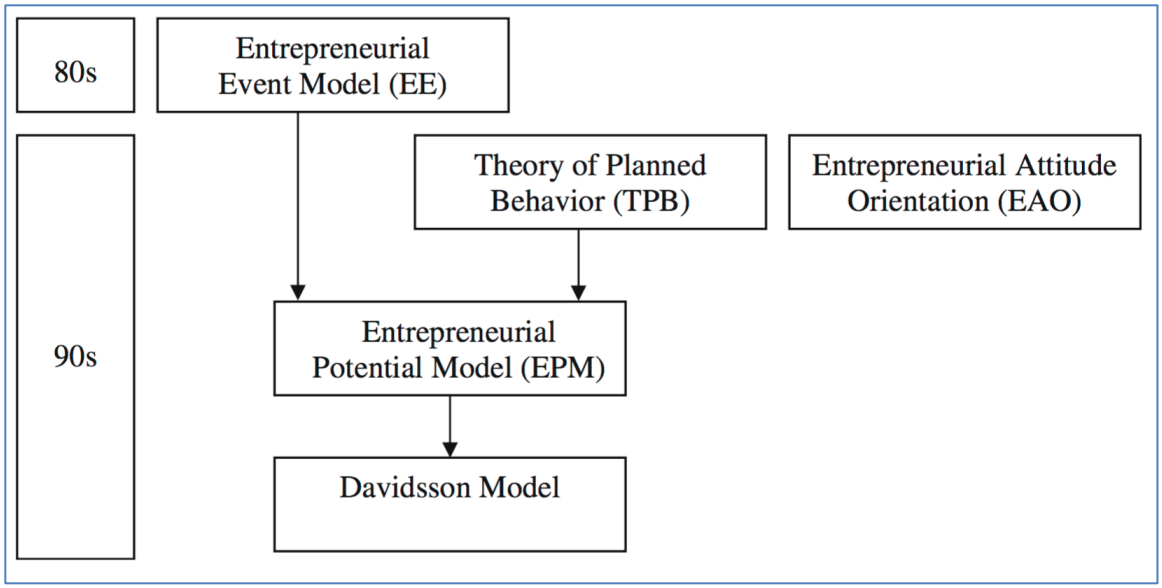
people that managed to become entrepreneurs and simply ignore the issues of success and survival bias. It is of great importance to go back in the first steps of the entrepreneurial process, because by surveying potential and not existing entrepreneurs a researcher can better understand the process of how and why someone decides to start a business and in this way, he/she could help in fostering future entrepreneurial activity.

2.3. Models of entrepreneurial intentions

A central question that occupies entrepreneurship scholars for a long time is *"What drives people into becoming entrepreneurs?"* Early research that tried to answer this question paid particular attention to personality traits like for example the *"need for achievement"* (McClleland, 1961), *"risk-taking propensity"* (Brockhaus, 1980) and *"locus of control"* (Rotter, 1966). However, whereas the trait approach offered some insights to the entrepreneurial process, due to inconsistencies and shortcomings it was argued that perhaps other approaches would be more suitable (e.g. Carland et al., 1988). The development of intention models (e.g. Ajzen, 1991; Bird 1988; Shapero 1984), has offered a more comprehensive framework for explaining actual behavior (Drennan, 2005; Krueger et al., 2000). The use of intention models is well established in the entrepreneurship literature and there is little difference in the amount of variance explained by the various models (Krueger et al., 2000).

Several intention models have been developed through the years (Bullough et al., 2014) in entrepreneurship literature, three of them have been the most dominant ones. Bird's (1988) model of implementing entrepreneurial ideas, Shapero's (1984) model of entrepreneurial event and Ajzen's (1991) theory of planned behavior. These models are to a great extend similar as they all integrate attitudes, social learning theory and include individual and contextual factors that influence the decision to start a business. According to Guerrero et al. (2006), in the 80s and 90s, six main models were developed to explain entrepreneurial intentions: The Entrepreneurial Event Model, The Theory of Planned Behavior, Entrepreneurial Attitude Orientation, Intentional Basic Model, Entrepreneurial Potential Model and Davidsson Model. These, along with Bird's model will be shortly introduced in the next sections.

Figure 3: Evolution of entrepreneurial intention models

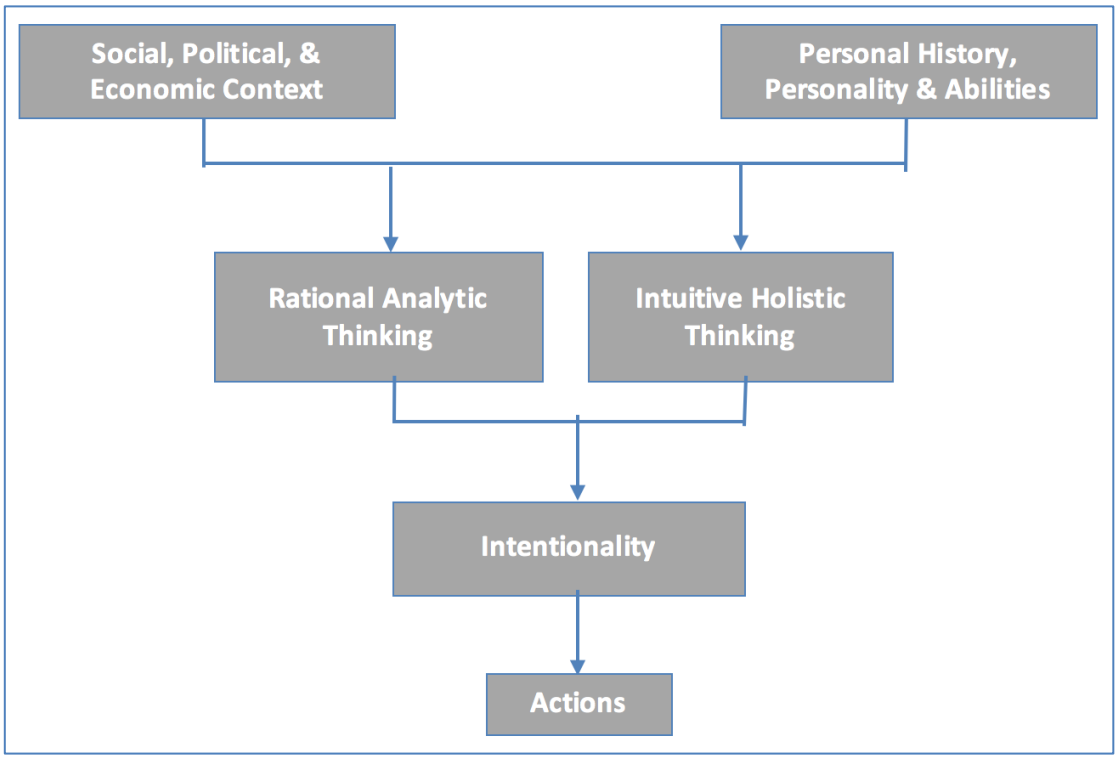


Source: Guerrero et al. (2006), p. 37

2.3.1. Bird's Model of implementing entrepreneurial ideas

Bird's model, grounded in the theory in cognitive psychology, illustrates the implementation of entrepreneurial ideas and tries to predict and understand human behavior. Individuals are predisposed to intention *"based upon a combination of both personal and contextual factors"* (Boyd and Vozikis, 1994, p. 66). Contextual factors include social, political, and economic variables and personal factors include personal characteristics and abilities, personal history, prior experiences and demographics. Personal and social contexts interact with rational analytic thinking (which includes the writing of a business plan, opportunity analysis, resource acquisition) and intuitive holistic thinking (which includes the potential entrepreneur's vision, hunch, etc.). The last two frames and structure entrepreneurial intention and action Bird's context of Entrepreneurial Intentionality can be found in Figure 4.

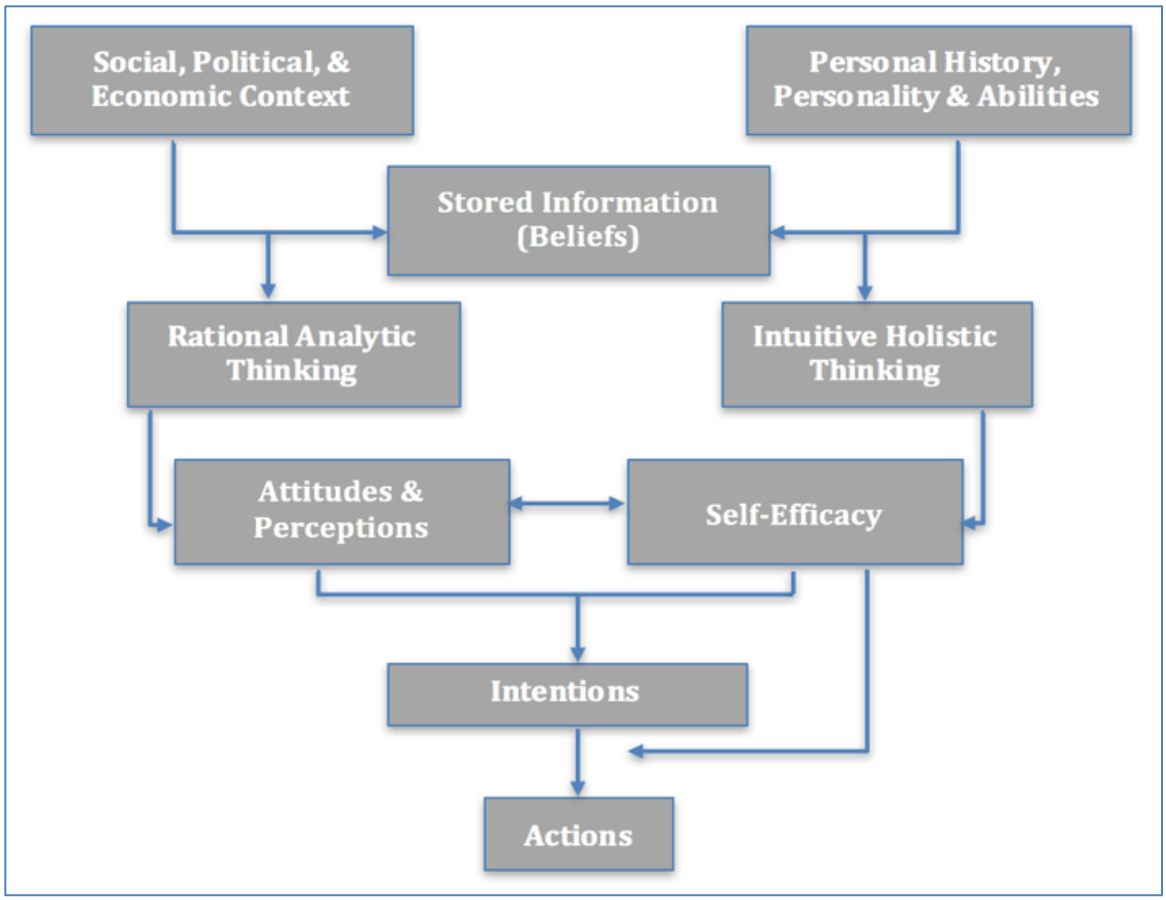
Figure 4: Context of Entrepreneurial Intentionality



Source: Bird, B. (1988), p. 444

This model was significantly revised by Boyd and Vozikis (1994) who argue that self-efficacy, *"a person's belief in his or her capability to perform a task"* (p.63), influences the entrepreneurial process and especially entrepreneurial intention and activity. The concept of self-efficacy is derived from social learning theory (Bandura, 1982) and it influences an individual's views as to whether or not certain objectives might a chance to be achieved. A person's self-perception as to his or her competencies influence choices and aspirations. For example, if a person believes he is capable performing a task, he will act accordingly despite possible setbacks or social demand for the particular behavior (Boyd and Vozikis, 1994). Self-efficacy may be influenced by several ways which include mastery experiences (i.e. successful performance accomplishments), vicarious experiences through modelling (i.e. observational learning from role models), social persuasion (i.e. positive feedback from others) and a person's own psychological state (i.e. anxiety levels, mood, etc.). Boyd and Vozikis also include another variable in their model which is stored information. This refers to the repertory of stored pieces of information that individuals develop and that are result of their personal and contextual history. This model can be found in the figure below.

Figure 5: A Revised Model of Bird's Contexts of Entrepreneurial Intentionality



Source: Boyd and Vozikis (1994), p. 69

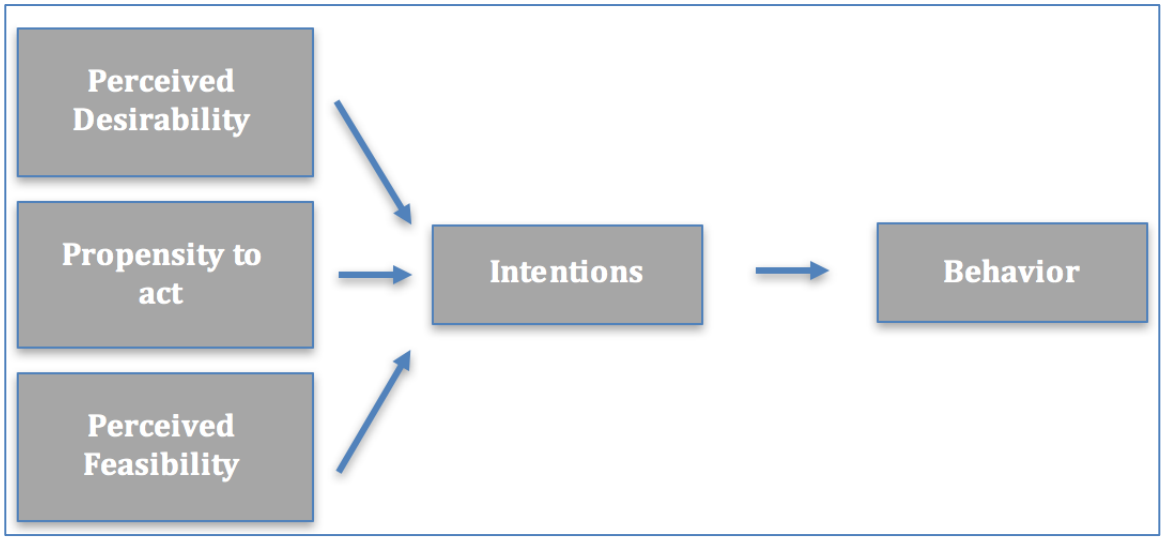
2.3.2. Model of entrepreneurial event

Shapero's work in the early 1980s was the starting point of the theoretical and empirical research of entrepreneurial intentions which led to rapid growth the years after (Fayolle and Linan, 2014). Shapero and Sokol (1982) theory of entrepreneurial event is a fundamental intention-based model and aims to explain entrepreneurial intentions and tries offer a better understanding of subsequent behavior. The model hypothesizes that the intention to start a business is influenced by three factors: perceived desirability, perceived feasibility and propensity to act. Perceived desirability refers to the degree to which, an individual feels attracted towards a career as an entrepreneur, perceived feasibility refers to the degree to which an individual feels confident to start a business and considers the possibility to be feasible and the propensity to act refers to the degree to which an individual has the disposition to act on his or her decision (Shapero and Sokol, 1982).Perceived feasibility for example can be influenced by the presence of role models, barriers, support, education, perceived skills to perform entrepreneurial tasks, or perceived availability of resources needed to create a business (Gasse and Tremblay, 2011). According to this model, prospective entrepreneurs develop entrepreneurial intentions when they think of entrepreneurship as a credible career choice. Furthermore, according to Shapero's work (1975), entrepreneurial events are a consequence of interrelating situational and social–cultural elements. "*Each entrepreneurial event occurs*

as a result of a dynamic process providing situational momentum that has an impact upon individuals whose perceptions and values are determined by their social and cultural inheritance and their previous experience." (Elfving et al., 2009 p. 24)

Intentions only develop if the person in question experiences something that leads to a change in behavior: a positive or negative displacement event (Peterman and Kennedy, 2003). Positive events may include an inheritance and the recognition of an opportunity and negative evens may include unemployment and forced migration. These events (positive of negative) change the behavior of an individual, who then looks for the best opportunity taking into consideration all the different alternatives (Katz, 1992). According to Shapero "*a person's attitude towards entrepreneurship would be indirectly influenced by his or her prior exposure to entrepreneurship, through prior work experience and the existence of role models"* (Peterman and Kennedy 2003, p.130).This model was tested empirically by Krueger et al. (2000), Peterman and Kennedy (2003), and Audet (2002). Shapero's model of entrepreneurial event can be found in the figure below.

Figure 6: Entrepreneurial Event Model



Source: Schlaegel, C., & Koenig, M. (2014,) p. 294.

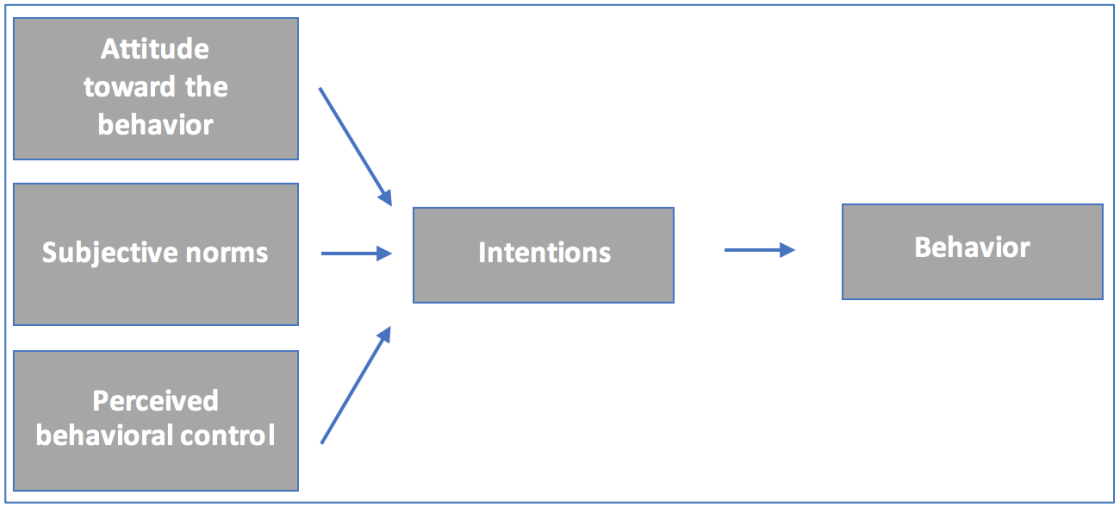
2.3.3. Theory of planned behavior

The theory of reasoned action (Fishbein & Ajzen, 1975) has served as the basis for the development of the theory of planned behavior (Ajzen, 1991). According to the theory of planned behavior (Ajzen, 1991; Ajzen and Fishbein, 1980), an individual's intention becomes the central factor in explaining behavior and is shaped by three attitudinal antecedents: attitude toward behavior, subjective norms, and perceived

behavioral control. Attitude towards behavior refers to *"the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question"* (Ajzen, 1991, p. 188). Subjective norms refer to *"the perceived normative beliefs about significant others, such as family, relatives, friends, as well as other important individuals and groups of individuals"* (Schlaegel and Koenig,2014, p.293). Subjective norms have two components. The one is related to normative beliefs about the perceived probability that important referent individuals or groups will approve or reject a given behavior Perceived behavioral control refers to *"an individual's belief about being able to execute the planned behavior and the perception that the behavior is within the individual's control"* (Schlaegel and Koenig, 2014,p. 294).

The theory of planned behavior has been the one mostly used from scholars in the entrepreneurship research. This is mostly because *"unlike other models, the TPB offers a coherent and generally applicable theoretical framework, which enables us to understand and predict entrepreneurial intention by taking into account not only personal but also social factors"* (Iakovleva, et al., 2011, p.356).

Figure 7: Theory of Planned Behavior



Source: Ajzen, I. (1991). p. 182.

2.3.4. Entrepreneurial Attitude Orientation

Robinson et al. (1991) generated the entrepreneurial attitude orientation scale, which describes the attitude of the entrepreneur taking into consideration other factors than personality and demographic characteristics. The scale explains the attitude prediction through four different sub scales:

1. *Achievement in business*, referring to concrete results associated with the start-up and growth of a business venture (Robinson et al., 1991, p. 19)

2. *Innovation in business*, relating to perceiving and acting upon business activities in new and unique ways. (Robinson et al., 1991, p. 19)

3. *Perceived personal control of business outcomes,* concerning the individual's perception of control and influence over his or her business. (Robinson et al., 1991, p. 19)

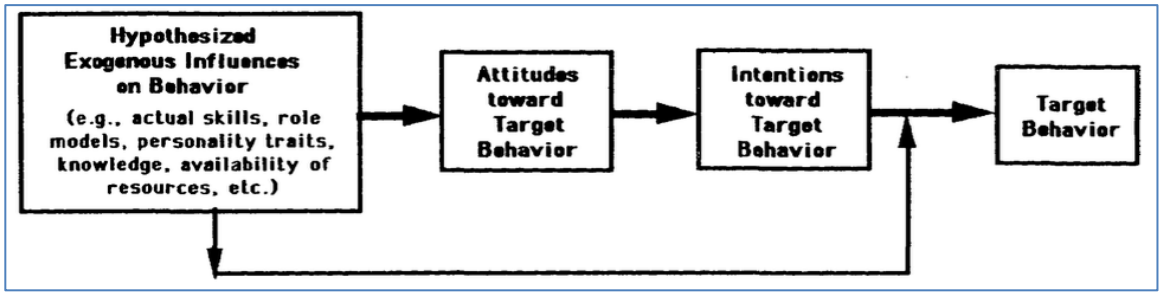
4. *Perceived self-esteem in business,* pertaining to the self-confidence and perceived competency of an individual in conjunction with his or her business affairs. (Robinson et al., 1991, p. 19)

The scale also explains three types of reactions. The affective reaction refers to positive or negative feelings toward the object. The cognitive reaction refers to the beliefs that an individual has about an attitude object. The conative refers to tendencies to behave in a given way. This scale has been used in various empirical studies regarding potential entrepreneurs (Koh, 1995; Paramond, 2004; Tan et al., 1996; Tkachev and Kolvereid, 1999).

2.3.5. Intentional basic model

The basic intention based model was proposed by Krueger and Carsrud (1993). In this model, intentions affect behaviour directly and attitudes affect intentions. Exogenous influences, such as role models and personality traits drive attitudes or moderate the relationship between intentions and behavior. The influence of exogenous factors is indirect most times as these are generally either person or situation variables. The model is depicted in the next figure.

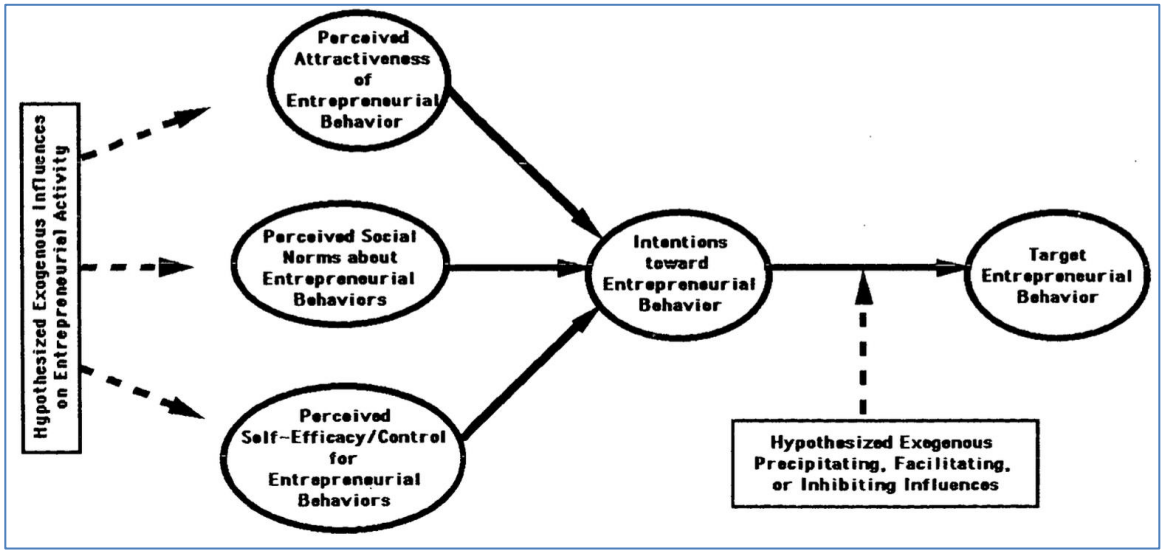
Figure 8: The basic intention-based process model



Source: Krueger and Carsrud (1993), p. 317

Krueger and Carsrud (1993) also proposed the *"Theory of planned behavior entrepreneurial model"*, which is based on Ajzen's theory of planned behavior, however it is adjusted to the entrepreneurial context. According to this model starting a new business is an intentional process that can be in influenced by three antecedents: a) the attitude to venture creation, b) the perceived social norms for engagement in business creation and c) the perceived control for an entrepreneurial behavior.

Figure 9: Theory of planned behavior entrepreneurial model

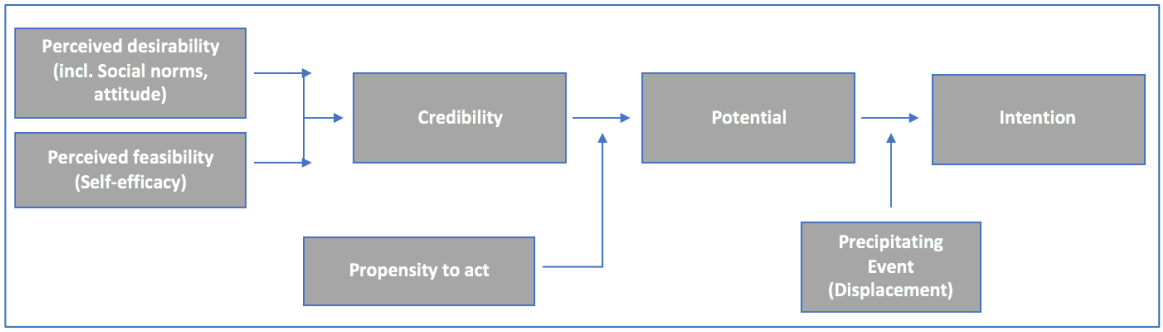


Source: Krueger and Carsrud (1993), p. 323

2.3.6. Model of entrepreneurial potential

The model of entrepreneurial potential proposed by Krueger and Brazeal (1994) is based primarily on the work of Ajzen as well as on the work of Shapero as described in the previous sections). The entrepreneurial potential model, as shown below suggests three critical constructs: Perceived desirability, Perceived feasibility, and propensity to Act. According to Guerrero et al., (2006) and Singh et al. (2012) this model is one of the best robust measures of entrepreneurial intention however it is not often used in related studies.

Figure 10: Model of Entrepreneurial Potential

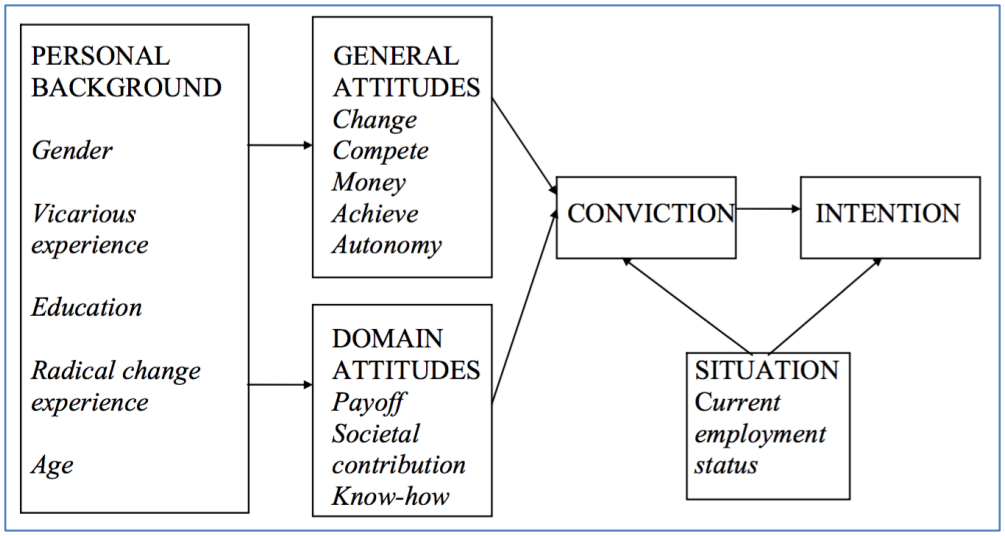


Source: Krueger and Brazeal (1994), p. 95

2.3.7. An economic-psychological model

The model proposed by Davidsson (1995)includes economic and psychological factors that affect an individual's intentions for venture creation. According this model, intention can be influenced by general attitudes including: willingness to change, competitiveness, money orientation, achievement, and autonomy. Furthermore, intention can be influenced by domain attitudes (payoff, social contribution and know-how), and the situation such as the current employment status.

Figure 11: An economic-psychological model



Source: Davidsson, P. (1995).

2.3.8. Comparison of the models

The above-mentioned models have been used by various researchers in order to establish a better understanding on entrepreneurial intention and the entrepreneurial process in general. For example, Peterman and Kennedy (2003) used Shapero's model of entrepreneurial event to study the effect of participation in an enterprise educational programme on perceptions of the desirability and feasibility of starting a business. Maes et al. (2014) used the theory of planned behavior for a better understanding of the origin of gender differences in entrepreneurial behavior. They found that the effect of gender on entrepreneurial intentions is mediated from personal attitudes and perceived behavioral control but not subjective norms. Guerrero et al., (2006) used Krueger & Brazeal's model, to analyze the relationship between desirability and feasibility of student's intentions to create a new firm in Catalonia.

Krueger et al. (2000) compared the two main intention-based models (Shapero's model of entrepreneurial event and the theory of planned behavior) and their ability to predict entrepreneurial intention. The results of their study show statistical support for both models. Furthermore, both models are largely homologous to one another. Perceived behavior control reflects the perceived feasibility of performing the behavior that is included in the Entrepreneurial Event model and both are conceptually associated with

perceived self-efficacy. Attitude towards the behavior reflects the perceived desirability and the subjective norms (Krueger et al., 2000). The propensity to act variable included in the entrepreneurial event model is not included in Ajzen's framework. Finally, the elements used in the Davidsson model are similar to perceived self-efficacy included in previous approaches developed by Krueger and Carsrud (1993) and Krueger and Brazeal (1994).

2.4. The antecedents of entrepreneurial intentions

Going a step backwards one can pose the question what determines or affects entrepreneurial intentions. Therefore, there is need to identify factors that precede intentions, so as to have a better understanding of the entrepreneurial process (Krueger et al.,2000). There are a number of antecedents of entrepreneurial intentions that could be taken into consideration and that are related for example with the person (e.g. demographics, personality, personal factors, etc.), the micro-social environment (e.g. family, education, etc.) and the macro-social environment (e.g. economic climate, etc.). These factors seem to have an indirect influence on entrepreneurship through influencing key attitudes (such as perceived behavioral control and the perceived attitude towards entrepreneurship) and general motivation to act (Krueger et al., 2000). Some of these factors are taken into consideration in this report. Several authors integrated antecedents of intention into entrepreneurial intention models. Davidsson (1995) for example, included in his model, values and beliefs and culture that are assumed to be related to entrepreneurial intentions, not directly but through general attitudes and domain attitudes.

2.4.1. Demographics

Demographic characteristics such as age (individuals' entrepreneurial intentions can change with age (e.g., Matthews and Moser, 1996), gender (entrepreneurial intentions was found to be gender dependent (e.g., Wang and Wong, 2004)) and work experience (Kent et al., 1982) have an impact upon the decision to become an entrepreneur. Demographic variables, however have been found to indirectly influence intentions and only if they change the decision-maker's attitudes (Krueger et al.,2000). Here the focus will be on one demographic characteristic, that is gender.

- Gender

The term gender, introduced in the 1970s and 1980s, is used as a useful tool to differentiate between biological sex and socially constructed sex or gender identity, which is seen as a result of social interaction and upbringing. This differentiation had the objective to point out that inequalities between the two sexes were not only caused by nature, but also from other factors such as historic-societal development and therefore could be changed (Ahl, 2006). So, gender is a combination of the biological sex and socialization that starts with birth and goes on throughout a person's life.

Entrepreneurship scholars have also concentrated themselves on research that has differences and similarities between the two genders in focus and the field of female entrepreneurship has emerged the last decades (e.g. Birley 1989; Mueller 2004; Sexton and Bowman-Upton 1990; Verheul and Thurik 2001). Whereas women entrepreneurs

make an important contribution to the development of the world economy, particularly in low- and middle-income countries, there is still a gender gap in entrepreneurial activity. However according to the newest Global Entrepreneurship Monitor special Report on women entrepreneurship published in 2015, the gender gap has narrowed by 6% in comparison to 2012 (Kelley et al.,2015). Gender gap ratios saw positive upward movement in three regions: factor- and efficiency-driven Asia, Latin America and the Caribbean and innovation-driven Europe.

Brush's (1992) literature review on female entrepreneurs showed that there are more gender similarities than differences in individual characteristics such as demography and business skills. However, gender related differences have been found in several entrepreneurship aspects such as business and industry choices, financing strategies, growth patterns, and governance structures (Greene et al., 2003; Hisrich 1982). Females develop different products, pursue different goals, use less debt and launch their businesses on a smaller scale (Carter et al., 1997; Chaganti and Parasuraman 1996; Fischer at al., 1993). Besides that, women judge their knowledge, experience and success lower than men (Sternberg et al., 2004). In comparison to men, women are less likely to own multiple businesses and are less likely to expand their businesses, are more risk averse and spend less time on networking (Rosaet al.,1996; Verheul and Thurik 2001). Independence and the need for achievement are strong motivators for both males and females (Cromie 1987; Shane et al., 1991). However male entrepreneurs favor occupations because of the financial gain, while female entrepreneurs prefer careers that allow work-family balance (DeMartino and Barbato, 2003). Women pursue self-employment because it allows them to work at home which eases the burden of finding childcare (Boden, 1996)

Despite the latest growing interest in female entrepreneurship from scholars and policy makers, little is known about women entrepreneurs (Sarri and Trihopoulou, 2005; Orhan, 2001) and less is known about potential female entrepreneurs. Entrepreneurship research has been concentrated on existing entrepreneurs fails to answer two questions. Firstly, whether the supply of potential male and female entrepreneurs is the same (Mueller, 2004) and secondly when do the differences or similarities of male and female entrepreneurs occur. Do they occur after the commencement of business activities or before that? By answering these questions, some factors that impede females from becoming entrepreneurs can be overcome very early in the entrepreneurial process and measures can be taken in order to foster female entrepreneurship and limit the gender gap in entrepreneurial activity (Laspita, 2010).

Furthermore, research indicates that there is a relationship between gender and entrepreneurial intention (Kristiansen and Indarti, 2004). Researching the reasons for gender differences in entrepreneurial intentions will support the understanding of the lower entrepreneurial activity of women compared to men (Ljunggren and Kolvereid, 1996). Drawing from the fact that there are more male than female entrepreneurs one could argue that also the interest of males towards entrepreneurship will be higher than that of their female counterparts. Wang and Wong (2004) indeed could verify this and found that the level of interest in entrepreneurship is related to gender and that males' interest is higher. Kourilsky and Walstad (1998), found similar results. However, more research is needed to support these findings.

2.4.2. Personality factors

Early research that tried to answer the question "who the entrepreneur is", paid significant attention to personality traits, as entrepreneurs were said to be different from the general population. Special attention has been given to traits like "need for achievement" (McClleland, 1961) and "risk-taking propensity" (Brockhaus, 1980), locus of control (Rotter, 1966), etc.

- Need for achievement

The question what motivates someone to become an entrepreneur has bothered entrepreneurship scholar for a long time. McClelland (1987, p.183) defines a motive as *"a recurrent concern for a goal state that drives, orients and selects behavior"*. One of the earliest motives that drives people to become entrepreneurs has been found to be the "need for achievement" (McClelland, 1961). The need for achievement *"seems to entail expectations of doing something better or faster than anybody else or better than the persons own earlier accomplishments"* (Hansemark 2003,p.302).McClelland suggested that people that have a high need for achievement probably have a preference towards tasks that have to do with effort, set high goals, like to face challenges and are innovative. Such characteristics are related to entrepreneurship more than they are to other professions and therefore the need for achievement may affect the intention to start an own business.

- Risk taking propensity

Entrepreneurs have to assume different risks when engaging in entrepreneurial activities. Among others, these can be financial, social, even health risks (Schaper and Volery, 2007). Investing own capital in the start-up or giving some kind of collateral in order to raise finance is not untypical for entrepreneurs. The long hours that they have to work often create problems within the family or other social commitments may suffer. Furthermore, in some societies that do tolerate failure, failed entrepreneurs are often stigmatized (Schaper and Volery, 2007). Very often entrepreneurs consider their ventures like their "own babies" and in a case of bankruptcy or close down of the firm they have feelings of grief and desperation (Shepherd, 2003; Shepherd, 2009) and these negative emotions could have a significant negative impact on themselves and their family's well-being. Finally, job stress and burnouts are not uncommon among entrepreneurs. Therefore, entrepreneurs are considered to be engaging in risky behavior and risk taking propensity has been defined as *"the tendency to take or avoid risk"*(Norton and Moore, 2006). This tendency may affect the intention to start a new business, despite the fact that also situational factors may play a role in a person's risk preference. Indeed, research shows *"that individual predispositions do influence behavior across situations involving uncertainty or risk"* (Zhao et al., 2010, p.388).

- Locus of control

The locus of control, *"measures subjects' perceived ability to influence events in their lives"* (Begley and Boyd, 1987) and has been one of the most studied psychological

traits in entrepreneurship research. People with an internal locus of control believe that events in their life derive primarily from their own actions whereas people with and external locus of control tend to believe that external factors are responsible for what is happening in their lives and that they personally have little or no control over such things. Entrepreneurs have been found to be people with an internal locus of control as they are initiators, they depend more on their skills and not on others and they take responsibility for their actions (Mueller and Thomas, 2001).For example, Brockhaus (1975) found that business students with entrepreneurial intentions had a tendency towards a higher internal locus of control than those students who did not have entrepreneurial intentions. Similar results were found by Shapero (1975) and Pandey and Tewary (1979).

2.4.3. Personal factors

A person's specific reactions to the given situation and personal beliefs seem to have an effect on entrepreneurship (Rychlak, 1981). Perceived skills and perceived barriers are taken into consideration in this report.

- Perceived skills

The perception of a person's skills indicates how confident people feel to make the step towards entrepreneurship and also influences people's self-efficacy that is gradually acquired through experience (Bandura 1982, Boyd and Vozikis 1994, Linan 2008). For example, a person that previously worked as an employee and obtained the necessary skills and experience may be more confident to start an own business (Heilman and Chen, 2003). Specific entrepreneurial skills may also be related to higher personal attraction and subjective norms (Scherer et al., 1991; Carsrud, 1992) and could help a lot in the individual's decision to start a firm (Linan, 2008). Studying perceived skills is of great importance for the enhancement of entrepreneurial intentions as for example: *"education and training initiatives trying to increase entrepreneurial potential in the participants should include workshops specifically addressed to the development of those entrepreneurial skills"* (Linan, 2008, p. 267).

- Perceived barriers

In the entrepreneurship literature, several factors have been identified that are perceived as barriers towards making the step into entrepreneurship (Kouriloff, 2000). These barriers could be related to personal, social, cultural, psychological, and political, economic factors and may include time for family, stress, discrimination, political instability, unfavorable economic conditions, etc. Luthje and Franke (2003) found that that the perceived contextual barriers play a significant role for the entrepreneurial behaviour of technical students. For example, when students perceive that there is an unfriendly environment for entrepreneurs, (e.g., due for example to bank's unwillingness to provide loans), they have lower intentions to become entrepreneurs. Understanding the factors that potential entrepreneurs perceive as barriers for making the step into entrepreneurship is of great importance as measures and suitable initiatives can be taken so as to alter such perceptions with the aim to increase entrepreneurship rates (Kouriloff, 2000; Luthje and Franke, 2003).

2.4.4. Micro-social factors

Several factors of the micro-social environment such as entrepreneurial parents and entrepreneurship education were found to have an impact on entrepreneurial intentions (Laspita et al.,2012; Kolvereid and Moen,1997).

- Family background

Entrepreneurial socialization, anchored in social learning theory is often used as an explanation and as an antecedent of the entrepreneurial intention and career choice of children of self-employed parents (Lerner et al., 1995). Social learning theory suggests that through observation of the behavior of others, known as role models, learning and the adaption of a behavior takes place, which is driven by following the example of the role model rather than by direct experience (Bandura, 1977). *"Fortunately, most human behavior is learned observationally through modeling: from observing others one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action"* (Bandura, 1977, p.22).

Parents, as a major source of the socialization process for a child and as people that a child repeatedly observes, have often been suggested to influence their children's career choice through the process of role modeling (Laspita et al., 2012;Dyer and Handler, 1994; Hundley, 2006; Krueger and Carsrud, 1993; Matthews and Moser, 1996;Scherer et al., 1989; Scott and Twomey, 1988; Tkachev and Kolvereid, 1999; Wang and Wong, 2004). Early exposure to entrepreneurship and the family business creates values and attitudes towards business ownership (Carr and Sequeira, 2007). The work experiences of the parents have significant effects on children and can be internalized as norms of behavior within the children (Menaghan and Parcel, 1995). Children of self-employed learn to value autonomy and having control over their own lives and to value hard work for the accomplishment of their goals (Aldrich et al., 1998). The "entrepreneurial capital" or the "entrepreneurial inheritance" in terms of values that children obtain from being exposed to the family firm has been a possible explanation for the predisposition towards self-employment among the offspring of the self-employed (Aldrich et al., 1998; Hundley, 2006). This exposure tends to improve the business knowledge of children from a young age and increases their entrepreneurial intentions (Wang and Wong, 2004).

- Entrepreneurship education

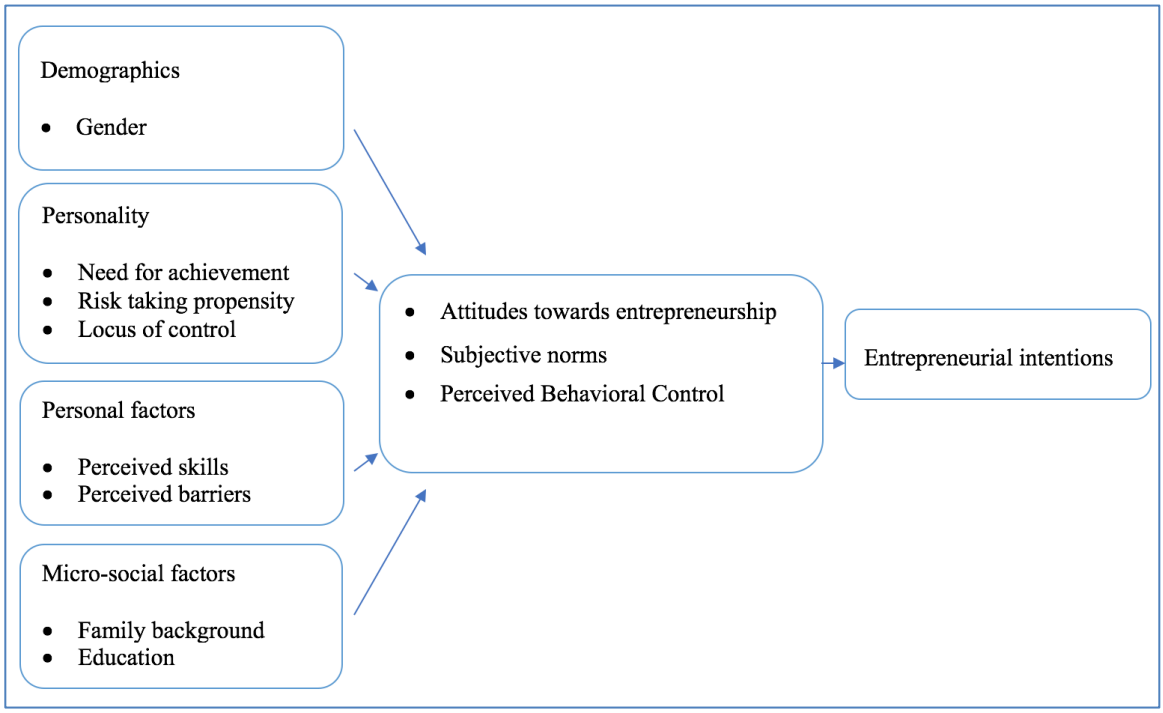
The link between entrepreneurship education and entrepreneurial attitudes and intentions has been proposed several times by scholars. Education can help to increase perceptions of feasibility and desirability for potential entrepreneurs (Krueger et al., 2000). The perception of feasibility can be increased, as students on the one hand, gain more knowledge and develop critical competencies, thus their self-efficacy is promoted and on the other hand by making known entrepreneurial successes of famous role models. Showing students that being self-employed is an activity supported by the community and the positive personal feelings (e.g. independence) and rewards that are associated with it, could increase perceptions of desirability towards entrepreneurship. Dyer (1994)

suggested that specialized courses in entrepreneurship could raise the confidence that people need in order to become self-employed. Robinson et al. (1991) argued that educators and practitioners may influence entrepreneurial attitudes and in extension also intentions since attitudes are open to change. These studies however did not empirically verify the proposed positive link.

2.4.5. Integrated model

This model depicted below provides a holistic view of entrepreneurial intentions and its antecedents. The variables used in theory of planned behavior, were used, as this model is the most frequently used in entrepreneurship research and it has proven to entail a strong predictive value. As antecedents, various personal and micro-social factors were used, as described in the previous sections of the literature review.

Figure 12: Integrated model



3. Methodology

3.1. Data Collection and Sample Characteristics

A survey was conducted between February and June 2016. The questionnaire used was in Greek and a random sample took part in the survey which was not an online survey. In order to ensure that the questions in the questionnaire were formulated consistently, a bilingual native speaker assisted in the translation process. Consistent with the strict back-translation process (Brislin, 1970), an independent bilingual expert who

did not help create the original survey translated the Greek version back into English. No major differences between the original English and the back-translated version were found.

In total 419 people participated in the survey from whom 38.4 percent were male and 61.6 percent were female. The mean age of the respondents is 27.6 and 63.7 percent were students, 7.2 percent were unemployed, 10.8 percent worked for the public sector and 18.2 percent worked for the private sector. 48.5 of the respondents were singles, 31,2 were in a relationship and 20.3 percent were married. 4.7 percent of the respondents had a monthly family income below 300 Euros, 11.5 percent were in the 301-700 Euros category, 34.6 percent in the 700-1200 Euros category, 28.4 percent in the 1200-2000 category and finally 20.8 percent in the above 2000 Euros category. 72.4 percent of the respondents had no family background in entrepreneurship and 81.9 percent knew someone that had already started a business.

3.2. Measures

All the main constructs included in the analysis were assessed with self-report measures based on multi-item scales. 7-point Likert scales were used ranging from 1 (I totally disagree) to 7 (I totally agree).

- Entrepreneurial intention

In order to measure entrepreneurial intention, the scale by Linan and Chen (2009) was applied, with six items (general sentences indicating different aspects of intention). The six items are the following: I am ready to do anything to be an entrepreneur, My professional goal is to become an entrepreneur, I will make every effort to start and run my own firm, I am determined to create a firm in the future, I have very seriously thought of starting a firm, I have the firm intention to start a firm some day. These items were averaged to yield an intention score (Cronbach's reliability coefficient = 0.949)

- Attitude towards entrepreneurship

In order to measure attitude towards entrepreneurship, the validated scale by Linan and Chen (2009) was applied.The items used were: Being an entrepreneur implies more advantages than disadvantages to me, A career as entrepreneur is attractive for me, If I had the opportunity and resources, I'd like to start a firm Being an entrepreneur would entail great satisfactions for me, Among various options, I would rather be an entrepreneur. These items were averaged to yield an attitude towards entrepreneurship score (Cronbach's reliability coefficient = 0.906)

- Perceived behavioral control

In order to measure the perceived behavioral control, the validated scale by Linan and Chen (2009) was applied. The items used were: To start a firm and keep it working would be easy for me, I am prepared to start a viable firm, I can control the creation process of a new firm, I know the necessary practical details to start a firm, I know how to develop an entrepreneurial project, If I tried to start a firm, I would have a high

probability of succeeding. These items were averaged to yield a perceived behavioral control score (Cronbach's reliability coefficient = 0.898).

- Subjective norms

In order to measure the subjective norms, the validated scale by Linan and Chen (2009) was applied.Respondents were asked: If you decided to create a firm, would people in your close environment approve of that decision? Indicate from 1 (total disapproval) to 7 (total approval). Three target groups were included: Your close family, Your friends, Your colleagues. These items were averaged to yield a subjective norms score (Cronbach's reliability coefficient = 0.813).

- Locus of control

Locus of control was measured according to Chen et al. (1998) who followed Levenson. The items that were averaged in order to create the aggregated locus of control score were: I am usually able to protect my personal interests, When I make plans, I am almost certain to make them work, I can pretty much determine what will happen in my life, My life is determined by my own actions, When I get what I want, it's usually because I worked hard for it (Cronbach's reliability coefficient = 0.750).

- Need for achievement

In order to measure need for achievement the established scale by McClelland was used. The items that were averaged in order to create the aggregated need for achievement score were: Nothing else in life is a substitute for a great achievement, My ambitions and my goals are high, I spend more time thinking about future despite my previous successes, Usually I push myself and I feel real satisfaction when my work is among the best available (Cronbach's reliability coefficient = 0,694)

- Risk taking propensity

Risk taking propensity was measured according to Norton & Moore (2006). The items that were averaged in order to create the aggregated risk taking propensity score were: I am not willing to take risks when choosing a work environment, I prefer a low risk/high security work environment with predictable income over a high risk and high reward environment, I prefer to remain in an environment that has problems that I know about rather than to take the risks of a new environment that has unknown problems, even if the new environment offers greater rewards, I view job-related risk as a situation to be avoided at all costs. (Cronbach's reliability coefficient = 0,752)

- Perceived skills

Perceived skills were measured according to Linan (2008). The items that were averaged in order to create the aggregated perceived skills score were: Recognition of opportunity, Creativity, Problem solving skills, Leadership and communication skills, Development of new products and services, Networking skills, and making professional

contacts (Cronbach's reliability coefficient = 0,814)

- Perceived barriers

Finally, the operationalization of the barriers was done based on prior studies conducted by using different sources such as Kourikoff (2000).The list with the items can be found in the appendix.

4. Results

Table 1 shows descriptive statistics of entrepreneurial intention and its antecedents such as attitude, subjective norms and behavioral control, etc.

Table 1: Means for entrepreneurial intention and its antecedents

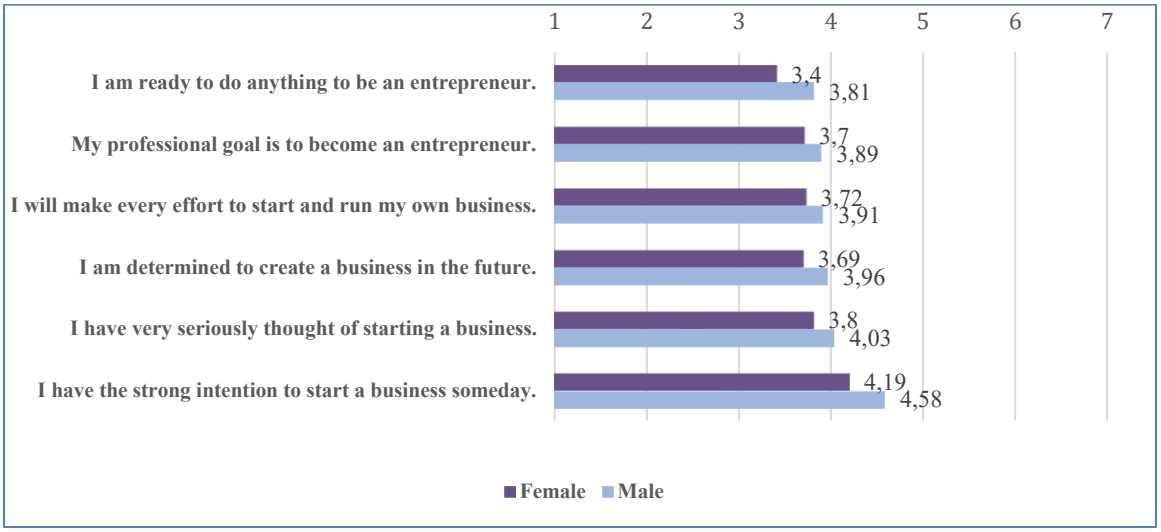
	N	AM	SD	Cron. a
Entrepreneurial intentions	418	3,77	1,689	0,949
Attitudes towards entrepreneurship	418	4,54	1,416	0,906
Perceived Behavioral Control	417	3,24	1,272	0,898
Subjective norms	417	5,12	1,348	0,813
Locus of control	419	5,11	1,130	0,750
Need for achievement	419	5,09	1,064	0,694
Risk taking propensity	419	3,89	1,211	0,752
Perceived skills	419	4,99	0,927	0,814

Despite the fact that entrepreneurial intentions are rather low, respondents have a rather favorable attitude towards entrepreneurship, they perceive their skills to be high, they have a rather high need for achievement and a high internal locus of control. The subjective norms are also quite high, meaning that social environment has a positive attitude towards entrepreneurship. The low level of entrepreneurial intentions suggests that there may be other variables which affect the relationship between attitude and the actual behavior. For example, people in our sample are quite risk averse and this finding may to some extent explain the low level of the entrepreneurial intentions. Findings reveal a very low perceived behavioral control which means that individuals in Greece and during the economic crisis regard themselves as not able to engage in entrepreneurial activities and they perceive that the entrepreneurial behavior is not within their control. So, despite the fact that people may have a positive attitude towards entrepreneurship, the unstable economic climate in the country renders entrepreneurship not a feasible career path.

We also tested for gender differences in the aggregated entrepreneurial intention

index. The entrepreneurial intention for male respondents (M=3,93, SD=1.746) is higher than that for female respondents (M=3.67, SD= 1.647), however the difference was not significant (t(416)=1,508, p>0.05). The following figure provides a more detailed picture of the results.

Figure 13: Entrepreneurial intentions by gender



We tested for gender differences in the above-mentioned variables but there were no statistical differences (except from perceived behavioral control), as can be seen in the tables below. This may be due to fact that the bad economic conditions in the country affect attitudes, personal factors and personality variables similarly. However, men regard themselves more able to engage in entrepreneurial activities and they perceive that the entrepreneurial behavior is more within their control than their female counterparts (see tables 2 and 3).

Table 2: Gender differences in vocal variables

	Gender	N	Mean	Std. Deviation	Std. Error
Entrepreneurial intentions	Male	161	3.9246	1.74592	.13760
	Female	257	3.6690	1.64762	.10278
Attitudes towards entrepreneurship	Male	161	4.6422	1.43081	.11276
	Female	257	4.4722	1.40523	.08766
Perceived Behavioral Control	Male	161	3.5031	1.34480	.10599
	Female	256	3.0760	1.19805	.07488

Subjective norm	Male	161	5.1159	1.24834	.09838
	Female	256	5.0931	1.40978	.08811
Locus of control	Male	161	5.1146	1.36622	.10767
	Female	258	5.1021	.95561	.05949
Need for Achievement	Male	161	5.0864	1.09782	.08652
	Female	258	5.0901	1.04489	.06505
Risk taking propensity	Male	161	4.0000	1.25437	.09886
	Female	258	3.8253	1.17998	.07346
Perceived Skills	Male	161	4.9832	.93136	.07340
	Female	258	4.9961	.92538	.05761

Table 3: Results t-tests (gender differences)

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Entrepreneurial intentions	Equal variances assumed	1.035	.310	1.508	416	.132	.25564	.16947	-.0775	.58876
	Equal variances not assumed			1.488	325.09	.138	.25564	.17174	-.0822	.59351
Attitudes towards entrepreneurship	Equal variances assumed	.014	.906	1.196	416	.233	.17006	.14223	-.1095	.44964
	Equal variances not assumed			1.191	335.27	.235	.17006	.14283	-.1109	.45100
Perceived Behavioral Control	Equal variances assumed	3.713	.055	3.379	415	.001	.42706	.12640	.17860	.67553
	Equal variances not assumed			3.291	310.97	.001	.42706	.12977	.17173	.68240
Subjective norm	Equal variances assumed	3.082	.080	.168	415	.866	.02284	.13577	-.2440	.28973
	Equal variances not assumed			.173	370.18	.863	.02284	.13207	-.2369	.28255
Locus of control	Equal variances assumed	.437	.509	.110	417	.913	.01246	.11358	-.2108	.23573
	Equal variances not assumed			.101	257.66	.919	.01246	.12302	-.2298	.25471
Need for Achievement	Equal variances assumed	.231	.631	-.034	417	.973	-.0037	.10701	-.2140	.20668
	Equal variances not assumed			-.034	326.98	.973	-.0037	.10825	-.2166	.20927
Risk taking propensity	Equal variances assumed	.634	.426	1.439	417	.151	.17474	.12143	-.0640	.41344
	Equal variances not assumed			1.419	323.99	.157	.17474	.12317	-.0676	.41705
Perceived Skills	Equal variances assumed	.003	.959	-.138	417	.890	-.0129	.09317	-.1960	.17025
	Equal variances not assumed			-.138	338.00	.890	-.0129	.09331	-.1964	.17065

A correlation analysis has been conducted to explore the relationship between entrepreneurial intentions and all other variables. The results can be found in the table below.

Table 4: Correlations between entrepreneurial intention and its antecedents

		1	2	3	4	5	6	7
1	**Entrepreneurial intentions**							

2	**Attitudes towards entrepreneurship**	.689**						
3	**Perceived Behavioral Control**	.456**	.507**					
4	**Subjective norms**	.342**	.426**	.196**				
5	**Locus of control**	.096*	.231**	.268**	.168**			
6	**Need for achievement**	.158**	.274**	.294**	.213**	.437**		
7	**Risk taking propensity**	-.240**	-.185**	-.084	-.008	-.004	.013	
8	**Perceived skills**	.301**	.343**	.455**	.146**	.343**	.453**	-.043

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

The table above shows a significant positive correlation for all variables with entrepreneurial intentions except for the risk-taking propensity which is significant but negative. This means that more risk averse people are, the less their intention to become self-employed. This finding is in accordance with previous research that provided evidence that individuals with a greater risk tolerance have a stronger entrepreneurial intention (Hmieleski and Corbett, 2006) Furthermore, a rather strong correlation exists between entrepreneurial intentions and perceived desirability and the attitude towards entrepreneurship and a modest correlation between entrepreneurial intentions perceived feasibility, perceived behavioral control and subjective norms. These findings, are similar to other studies that used the theory of planned behavior to explain entrepreneurial intentions (Ozaralli and Rivenburgh, 2016). Consistent with the trait approach, personality characteristics, such as the need for achievement, appear to be related to entrepreneurial intention, even if the correlation is quite small.

A confirmatory factor analysis (varimax rotation, main component analysis) reduced the 36 different barriers into nine factors. These are: public policy barriers (a=0,810), personal barriers (a=0.830), social barriers (a=0.772), economical barriers (a=0,661), operation barriers (a=0.809), networking barriers (a=0.791), stress barriers (a=0,633), regulation barriers (a=0.565) and finally business risk barriers (a=0.258). The nine factors together explain a total of 63.38 percent of the variance.

Table 3 shows descriptive statistics of the perceived barriers. As the results show the economic barriers, the public policy barriers and the business risk barriers are considered of the most important barriers towards undertaking entrepreneurial activities and reflect the difficult economic and political situation in Greece. The least important barriers are personal barriers and operation barriers.

Table 5: Descriptive statistics of the perceived barriers

	N	AM	SD
Public policy barriers	418	5,76	0,9552
Personal barriers	416	4,12	1,310
Social barriers	415	4,32	1,179
Economical barriers	418	5,89	1,036
Operation barriers	416	4,27	1,322
Networking barriers	417	4,32	1,337
Stress barriers	418	4,82	1,163
Regulation barriers	418	4,97	1,241
Business risk barriers	418	5,45	1,046

The correlation analysis between the perceived barriers and entrepreneurial intention shows that there is in almost all cases a very weak negative relationship. In other words, the stronger the inhibiting factors are perceived the lower becomes the intention to become self-employed. However, the negative relationship with the entrepreneurial intentions is significant only for two barriers that is stress barriers and business risk barriers. So surprisingly the perceived barriers do not seem influence the intentions to become an entrepreneur. This may be due to the fact that people because of the economic crisis that leaves them without many alternatives because of the high unemployment are willing to make the step into entrepreneurship even if they perceive that this process will be associated with different barriers. The results show modest or strong correlations between different kinds of barriers.

Table 6: Correlations between entrepreneurial intention and perceived barriers

		1	2	3	4	5	6	7	8	9
1	Entrepreneurial intentions									
2	Public policy barriers	-.075								
3	Personal barriers	.000	.213**							
4	Social barriers	-.060	.422**	.462**						
5	Economic barriers	-.047	.530**	.187**	.260**					
6	Operation barriers	-.008	.302**	.284**	.456**	.256**				
7	Networking barriers	-.046	.260**	.459**	.410**	.245**	.500**			
8	Stress barriers	-.152**	.378**	.244**	.367**	.294**	.291**	.313**		
9	Regulation barriers	.012	.465**	.197**	.331**	.355**	.325**	.341**	.231**	
10	Business risk barriers	-.153**	.384**	.282**	.308**	.332**	.290**	.304**	.389**	.235**

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

We also tested for gender differences in the perceived barriers. Differences were found in the perception of personal barriers that include self-confidence and ambition, the perception of operations barriers that include finding business opportunities and marketing methods, the perception of networking barriers that include business contacts and the perception of stress barriers that include work stress. Men regard these barriers as less problematic than women.

Table 7: Gender differences in perceived barriers

	Gender	N	Mean	SD	Std. Error
Public policy barriers	Male	160	5.7372	1.05479	.08339
	Female	258	5.7674	.88981	.05540
Personal barriers	Male	158	3.8443	1.28557	.10227
	Female	258	4.2920	1.29758	.08078
Social barriers	Male	158	4.2282	1.14856	.09137
	Female	257	4.3718	1.19677	.07465
Economic barriers	Male	160	5.7828	1.20581	.09533
	Female	258	5.9551	.91107	.05672
Operation barriers	Male	159	4.0681	1.30874	.10379
	Female	257	4.3995	1.31644	.08212
Networking barriers	Male	159	4.0818	1.29098	.10238
	Female	258	4.4683	1.34551	.08377
Stress barriers	Male	160	4.5771	1.25989	.09960
	Female	258	4.9677	1.07502	.06693
Regulation barriers	Male	160	4.9875	1.28115	.10128
	Female	258	4.9612	1.21855	.07586
Business risk barriers	Male	160	5.3875	1.11303	.08799
	Female	258	5.4845	1.00182	.06237

Table 8: Gender differences (t-tests)

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
public_policy	Equal variances assumed	3.488	.063	-.314	416	.753	-.03024	.09622	-.21938	.15891
	Equal variances not assumed			-.302	294.787	.763	-.03024	.10011	-.22726	.16679
personal	Equal variances assumed	.016	.899	-3.427	414	.001	-.44769	.13062	-.70445	-.19092
	Equal variances not assumed			-3.435	334.479	.001	-.44769	.13033	-.70406	-.19131
social	Equal variances assumed	.731	.393	-1.205	413	.229	-.14363	.11916	-.37786	.09061
	Equal variances not assumed			-1.217	342.857	.224	-.14363	.11799	-.37571	.08846
economical	Equal variances assumed	3.522	.061	-1.656	416	.098	-.17229	.10402	-.37676	.03218
	Equal variances not assumed			-1.553	270.533	.122	-.17229	.11093	-.39068	.04610
operation	Equal variances assumed	.003	.955	-2.500	414	.013	-.33135	.13253	-.59186	-.07083
	Equal variances not assumed			-2.504	336.372	.013	-.33135	.13235	-.59168	-.07102
networking	Equal variances assumed	1.569	.211	-2.894	415	.004	-.38659	.13359	-.64919	-.12398
	Equal variances not assumed			-2.922	345.233	.004	-.38659	.13228	-.64677	-.12640
stress	Equal variances assumed	9.506	.002	-3.378	416	.001	-.39062	.11564	-.61793	-.16330
	Equal variances not assumed			-3.255	297.477	.001	-.39062	.12000	-.62677	-.15446
regulation	Equal variances assumed	.293	.589	.210	416	.834	.02626	.12507	-.21958	.27210
	Equal variances not assumed			.208	324.302	.836	.02626	.12655	-.22269	.27521
business_risk	Equal variances assumed	1.756	.186	-.922	416	.357	-.09700	.10523	-.30384	.10985
	Equal variances not assumed			-.899	310.426	.369	-.09700	.10786	-.30922	.11522

5. Summary and discussion of the results

The main goal of this paper was to examine the entrepreneurial intention of people in Greece in an era of an economic crisis, but also to explore antecedents that may enhance or hinder the entrepreneurial intentions. Another goal was to identify gender similarities or differences on the entrepreneurial intention but also on its antecedents Drawing mainly on the theory of planned behavior, this paper offers preliminary results of a study that took place between February and June and consists of 419 respondents.

An important finding is that respondents showed relatively low intention to start their business whereas, their personal attitudes toward becoming an entrepreneur and perceived desirability are high. One explanation could be that the perceived risks associated with new business creation and the unstable economic and political climate render entrepreneurship an unfeasible career choice. Similar levels of entrepreneurial intentions in Greece were also shown in the Greek data of the GUESSS study that took place in 2013 (Sarri and Laspita, 2014) However, the lack of potential entrepreneurs or entrepreneurs in the first steps of their activities could be an obstacle to the fast revival of the economy in the country, as especially during times of financial instability, new businesses generate jobs, they spread innovation and provide support to the local economy and the economy as a whole (Engle et al., 2010). In our study the attitude towards entrepreneurship was higher than perceived behavioral control and Fitzsimmons and Douglas (2011) have found that individuals reporting high perceived desirability but low feasibility were less likely to report entrepreneurial intentions, which may also explain the level of entrepreneurial intention of the respondents in our sample.

The negative relationship between risk preference and entrepreneurial intentions is in accordance with other studies (e.g. Hmieleski and Corbett, 2006; Barbosa et al, 2007). Similar to our results Kennedy et. al (2003) also found that subjective norms positively related with entrepreneurial intentions. Finally, there was a rather small positive correlation between entrepreneurial intentions and need for achievement and locus of

control. The positive correlation has been confirmed by previous studies conducted by Brockhaus (1975) and Borland (1974).

Another interesting result is that the economic barriers, the public policy barriers and the business risk barriers are considered of the most important barriers towards undertaking entrepreneurial activities and not for example barriers that have to do with the person (such as stress towards undertaking entrepreneurial activities or networking). This is in accordance with the findings of Kouriloff (2000) who pointed out that the government instead of being the key player in fostering entrepreneurship; it may in fact be a source of several important barriers to entrepreneurship. This is why the role of the government and of the society as a whole in creating an entrepreneurial environment is essential in order to boost entrepreneurial activity in the current period. Policy makers could put in use measures that include facilitation of access to financial services and funding which is especially important in times of economic recession, the reduction of bureaucracy, regulations and taxation (OECD, 2009). Such measures not only can render entrepreneurship a feasible (people in our study regard entrepreneurship desirable but less feasible) careers path but could also restore long-term growth for current businesses.

Our results show that generally male and female potential entrepreneurs are quite alike in the motivation towards becoming self-employed during this period of the economic crisis in Greece, as it also shown in the literature on existing entrepreneurs (Brush, 1992; Veena and Nagaraja, 2013. Similarities were found for example in the risk-taking propensity, the perceived skills, need for achievement, locus of control, etc. If however, both potential and existing male and female entrepreneurs do not mainly differ in their motivation to become entrepreneurs, the question of the gender gap in entrepreneurial activity still remains open and is subject to future research. For example, Pines et al. (2010) found gender similarities in the motivation for starting a business, the sense of significance it provided and their entrepreneurial traits. They argue that women's inferiority in entrepreneurship is a result of social and economic exclusion and lack of equality, whose role is reinforced in times of an economic crisis. "*In times of crisis money 'talks' and women have no money. Financial organizations are reluctant to lend money to small and vulnerable businesses (that tend to characterize women) and they are reluctant to lend money to new businesses (that tend to characterize women)"*(Pines et al., 2010, p. 192).The small differences that we found in motives and hurdles could be influenced by socialization. "*Society requires women to take on the mothering role, which often leads to unsatisfactory, truncated careers, while men are expected to be bread-winners. As a result of different socialization what one might expect would simply be fewer independent businesswomen than independent businessmen"* (Cromie, 1987, p.259).

In our study, we did not identify significant differences in the entrepreneurial intentions of men and women (even if men show higher intention than women). However, in times of economic crisis, when there is a need for women to earn money for the survival of their families, stereotypes concerning women being a part of the workforce may be overcome, however obstacles regarding, for example, access to finance for women from banks may still remain as banks may face females that try to become entrepreneurs with some incredulity. These matters should be taken into consideration in order to reduce the gender gap in entrepreneurial intentions and activity. However, a gender gap in entrepreneurial activity still exists in the country and this has important implications for

policy makers and educators since measures are needed to be taken in order to raise female's interest in entrepreneurship. Policy makers could put in use measures that include facilitation of access to financial services, legal protection of women entrepreneurs, a combination of mentoring and practical sessions, through which women can improve their business knowledge and their self-efficacy. In all the measures taken, women's special needs (e.g. children, care of older people, etc) should be taken into consideration. Educators could bring in class successful female entrepreneurs or organize excursions to companies founded by women in order to increase students' perceptions of entrepreneurship as something feasible and desirable.

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