ASECU South-Eastern Europe Journal of Economics 2 (2018) 147-170 SEEJE

DRIVERS AND BARRIERS OF ENTREPRENEURIAL INTENTIONS IN TIMES OF ECONOMIC CRISIS: THE GENDER DIMENSION

AIKATERINI SARRI
STAVROULA LASPITA
ANASTASIOS PANOPOULOS*
University of Macedonia

Abstract
This paper shows results of a study on entrepreneurial intentions in Greece in times of a major and prolonged economic crisis, with a focus on the dimension of gender. The paper provides insights about drivers and barriers that affect intentions of becoming an entrepreneur. Results show relatively low intention of starting a business, whereas personal attitudes toward becoming an entrepreneur and perceived desirability are high. Furthermore, economic barriers, public policy barriers and business risk barriers towards undertaking entrepreneurial activities are considered to be highly important as compared to personal barriers. As far as gender is concerned, results show that, generally speaking, male and female potential entrepreneurs are quite similar in their motivation towards entrepreneurship during turbulent times.

JEL Classification: M13, M19
Key words: Entrepreneurial Intentions, Gender, Economic Crisis, Drivers, Barriers

**Corresponding Author:* Anastasios Panopoulos, University of Macedonia, 156, Egnatia Street, GR-546 36, Thessaloniki, Greece. E-mail: apanopoulos@uom.edu.gr

1. Introduction

In recent years, Greece has been undergoing a major economic crisis, which is associated with a deep and prolonged depression period in both economic and social terms. Entrepreneurship in the country has also been affected in multiple ways by the current economic crisis. Greeks show low intentions of starting a business (8.3%) compared to other European countries; this can partly be explained by the fact that few people see any sound opportunities (14.2%) for starting a business (Kelley et al 2016). On the other hand, entrepreneurship is seen as a way out of the economic crisis, since start-ups and entrepreneurial activities have proven to accelerate structural change, to improve the competitiveness 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. 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 options,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 of starting a company is pivotal for the entrepreneurial process and an immediate antecedent of actual behaviour (Ajzen, 1991). Meta-analyses on the intentions-behaviour/action gap confirm this, since 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).

Identifying drivers and barriers related to entrepreneurial intentions in both males and females, is also very important because of the gender gap in entrepreneurial intentions and activities. Furthermore, measures can be taken in order to foster female entrepreneurship that will eventually lead to bridging the gender gap.

The aim of the paper is twofold. Firstly, to provide a thorough investigation of entrepreneurial intentions in turbulent times and in a business environment that can be characterised –on the basis of entrepreneurial indices for previous years- as hostile. Secondly, this paper aims at offering an integrated model explaining underlying factors that result in decisions to adopt entrepreneurship, with a special focus on women entrepreneurship in the Greek business environment. The paper is structured as follows. First, we provide a literature review on entrepreneurial intention and its antecedents. Second, we detail the research method and present the results. Finally, we discuss our findings and the implications of our study and state its limitations.

2. Literature Review

2.1 Entrepreneurship in Greece

The attitude of Greek society towards entrepreneurship is not characterised as positive and Greeks mainly associate entrepreneurship with large and established companies. Until recently an entrepreneur had often been labelled a "fraudster or an adventurer or a manipulator of the market" and profits resulting from entrepreneurial activities had been perceived as negative and reprehensible. In such a climate, young people were discouraged from engaging in entrepreneurial activities (Sarri and Laspita, 2014).

Naturally, the ongoing economic crisis in Greece drastically affects entrepreneurship in the country. Greeks show low intentions of starting a business (8.3%) as compared to other Europeans, which can partly be explained by the fact that few people see sound opportunities (14.2%) for starting businesses (Kelley *et al.*, 2016). Entrepreneurs in Greece are self-confident about their capabilities towards entrepreneurship (46.8%) when compared to entrepreneurs in other European countries, but, at the same time, they have the lowest view about opportunities for new business and their fear of failure is relatively high in Greece (46.9%) among all the economies of the GEM study (Kelley *et al.*, 2016). Furthermore, more than half of the adults asked (61%) believe entrepreneurship is a good career option and 68% attribute a high status to successful entrepreneurs, whereas fewer (38%) see positive images of entrepreneurs in the media (Kelley *et al.*, 2016).

Data from the Global Entrepreneurship Monitor (2017) on women entrepreneurship show that, in Greece, in addition to the gender gap in entrepreneurial intentions, with men showing higher intentions than women, there is also a gender gap in total early-stage entrepreneurship (TEA) and established activity figures. This trend is consistent throughout all the years Greece has participated in GEM (Kelley *et al.*, 2017). Necessity entrepreneurship in Greece appears stronger for female entrepreneurs than their male counterparts (Kelley *et al.*, 2017). The economic crisis may have pushed women towards entrepreneurship, because of the associated unemployment and the need to earn income to support their families. Women in Greece seem to have lower perceptions as to their capacity and skills for undertaking entrepreneurial initiatives than men and a higher fear of failure (77% for women and 69% for men) (Ioannidis and Giotopoulos, 2014). Women seem to engage in entrepreneurial activities later than men, they have a similar educational background as men and a lower percentage of them (50%) than men (68%) perceive entrepreneurship as a good career option (Ioannidis and Giotopoulos, 2014).

2.2 Entrepreneurial Intentions

The intention to start a company is central to the entrepreneurial process and an

immediate antecedent of actual behaviour (Ajzen, 1991). Meta-analyses on the intentions-behaviour/action gap confirm this, since up to 39% of the variance in actual behaviour can be explained on the basis of intentions (Bullough, 2014). Therefore, entrepreneurial intentions are one of the best predictors of planned behaviour (Krueger and Carsrud, 1993), as opposed to attitudes, beliefs, demographics or personality (Krueger and Carsrud, 1993, Krueger *et al.*, 2000). Intentions capture the extent to which people are willing to make an effort in order to perform and reflect motivational factors that affect behaviour (Ajzen, 1991). Souitaris *et al.* (2007) define entrepreneurial intentions as the state of mind that directs a person's focus and actions towards becoming self-employed, as opposed to becoming an employee.

Factors used to explain differences in entrepreneurial intentions among individuals are related to individual-level aspects, such as demographics and personality traits, as well as socio-cultural factors, such as family background and education. Douglas and Shepherd (2002) found that individuals with a strong risk-taking propensity are particularly oriented towards undertaking entrepreneurial activities. Skills can stimulate creativity and enhance recognition of opportunities; therefore, they may well lead to 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 pointed to as influencing their children's career choices, through the process of role modelling (Matthews and Moser, 1996), and, in particular, the children's entrepreneurial intentions (Laspita et al., 2012).

2.3 Models of Entrepreneurial Intentions

Several intention models have been developed through the years (Bullough *et al.*, 2014) in relevant literature, three of which have prevailed. Bird's (1988) model of implementing entrepreneurial ideas, Shapero's (1984) model of entrepreneurial event and Ajzen's (1991) theory of planned behaviour. These models are, to a great extent, similar in that they all consider attitudes and the social learning theory, while also including individual and contextual factors that influence one's decision to start a business.

2.3.1 Bird's Model of Implementing Entrepreneurial Ideas

Bird's model, grounded in cognitive psychology theory, illustrates the implementation of entrepreneurial ideas and tries to predict and understand human behaviour. 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, while personal factors include personal characteristics and abilities, one's personal history, prior experiences and demographics. Personal and social contexts interact with rational analytic

thinking (which includes the preparation of a business plan, opportunity analysis, and resource acquisition) as well as intuitive holistic thinking (which includes the potential entrepreneur's vision, hunches, etc.). The last two set the frame for and structure entrepreneurial intention and action. 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, in particular, entrepreneurial intention and activity.

2.3.2 Model of Entrepreneurial Event

Shapero's work in the early 1980s was the starting point of theoretical and empirical research into entrepreneurial intentions, which led to rapid growth in ensuing years (Fayolle and Linan, 2014). Shapero and Sokol's (1982) theory of entrepreneurial event is a fundamental intention-based model and aims at explaining entrepreneurial intentions; it also tries to offer better understanding of subsequent behaviour. The model presumes 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 extent to which, an individual feels attracted by a career as an entrepreneur, perceived feasibility refers to the extent 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 extent to which an individual has the disposition to act on his or her decision (Shapero and Sokol, 1982). Intentions only develop if the person in question experiences something that leads to a change in their behaviour, namely, a positive or negative displacement event (Peterman and Kennedy, 2003).

2.3.3 Theory of Planned Behaviour

According to the theory of planned behaviour (Ajzen, 1991; Ajzen and Fishbein, 1980), an individual's intention becomes the central factor in explaining behaviour and is shaped by three attitudinal antecedents: attitude toward behaviour, subjective norms, and perceived behavioural control. Attitude towards behaviour refers to *"the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour 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). Perceived behavioural control refers to *"an individual's belief about being able to execute the planned behaviour and the perception that the behaviour is within the individual's control"* (Schlaegel and Koenig, 2014, p. 294).

2.3.4 Comparison of Models

The models mentioned above have been used by various researchers in order to

establish a better understanding of entrepreneurial intention and the entrepreneurial process itself. For example, Peterman and Kennedy (2003) used Shapero's model of entrepreneurial event to study the effect of participation in an entrepreneurial educational programme on perceptions of the desirability and feasibility of starting a business. Maes *et al.* (2014) used the theory of planned behaviour to ensure better understanding of the origin of gender differences in entrepreneurial behaviour. They found that the effect of gender on entrepreneurial intentions is mediated by personal attitudes and perceived behavioural control, but not by subjective norms. Krueger *et al.* (2000) compared the two main intention-based models (Shapero's model of entrepreneurial event and the theory of planned behaviour) and the ability of these models to predict entrepreneurial intention. The results of their study statistically support both models. Furthermore, both models are largely homologous to one another. Perceived behaviour control reflects the perceived feasibility of performing the behaviour included in the Entrepreneurial Event model and both are conceptually associated with perceived self-efficacy. Attitude towards the behaviour reflects the desirability perceived and the subjective norms (Krueger *et al.*, 2000).

2.4 Antecedents of Entrepreneurial Intentions

Going a step backwards, one can raise a question about what determines or affects entrepreneurial intentions. Therefore, it is necessary to identify factors that precede intentions, so as to better understand 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 indirect influence on entrepreneurship through influencing key attitudes (such as perceived behavioural control and the perceived attitude towards entrepreneurship) and one's general motivation to act (Krueger *et al.*, 2000).

2.4.1 Demographics

Demographic characteristics, such as age (individuals' entrepreneurial intentions may change with age (e.g., Matthews and Moser, 1996), gender (entrepreneurial intentions have been found to be gender-dependent [e.g., Wang and Wong, 2004]) and work experience (Kent *et al.*, 1982) have an impact on one's 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, namely, gender.

- Gender

Brush's (1992) literature review on female entrepreneurs showed that there are more gender similarities than differences in regard to individual characteristics, such as demography and business skills. However, gender-related differences have been found concerning several entrepreneurship aspects, such as financing strategies, growth patterns, and governance structures (Greene *et al.*, 2003). Females develop different products and pursue different goals (Carter *et al.*, 1997; Chaganti and Parasuraman, 1996). As compared to men, women are less likely to own multiple businesses and are less likely to expand such businesses (Verheul and Thurik 2001). Independence and the need for achievement are strong motivators for both males and females (Cromie, 1987). Women pursue self- employment because it allows them to work at home, which eases the burden of having to find childcare (Boden, 1996). Research indicates there is a relationship between gender and entrepreneurial intention (Kristiansen and Indarti, 2004). Researching into the reasons for gender differences in entrepreneurial intentions will support the understanding of lower entrepreneurial activity among women, when compared to that of men (Ljunggren and Kolvereid, 1996).

2.4.2 Personality Factors

Early research trying to answer the question who the entrepreneur is, paid significant attention to personality traits, since entrepreneurs were believed to be different from the general population. Special attention was given to traits like 'need for achievement' (McClleland, 1961), 'risk-taking propensity' (Brockhaus, 1980), 'locus of control' (Rotter, 1966), etc.

- Need for achievement

One of the earliest motives that drive 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 with a high need for achievement probably show preference for tasks associated with effort, set high goals, enjoy facing challenges and are innovative.

- Risk-taking propensity

Entrepreneurs have to assume different risks when engaging in entrepreneurial activities, which can be, among others, financial, social, or, even, health risks (Schaper and Volery, 2007). Investing own capital in a start-up or giving some kind of collateral in order to raise finance is typical of entrepreneurs. The long hours they

have to work often create problems within their family or their social commitments may suffer. Furthermore, in some societies that do not tolerate failure, failed entrepreneurs are often stigmatised (Schaper and Volery, 2007). Therefore, entrepreneurs are considered to be engaging in risky behaviour and risk-taking propensity has been defined as *"the tendency to take or avoid risk"* (Norton and Moore, 2006). This tendency may affect one's intention to start a new business, despite the fact that situational factors may also play a role in a person's risk preference.

- Locus of control

The locus of control *"measures subjects' perceived ability to influence events in their lives"* (Begley and Boyd, 1987). People with an internal locus of control believe that events in their lives derive primarily from their own actions, whereas people with and external locus of control tend to believe that external factors are responsible for what happens in their lives and that they have little or no personal control over matters. Entrepreneurs have been found to be people with an internal locus of control, since they are initiators, they depend more on their own skills rather than others' and they take responsibility for their actions (Mueller and Thomas, 2001).

2.4.3 Personal Factors

A person's specific reactions to a given situation and personal beliefs seem to have an effect on entrepreneurship (Rychlak, 1981).

- Perceived skills

The perception of a person's skills indicates how confident people feel to make the step towards entrepreneurship; this also influences people's self-efficacy, which is gradually gained through experience (Bandura 1982, Boyd and Vozikis 1994, Linan 2008). For example, a person who previously worked as an employee and acquired the necessary skills and experience may be more confident to start their own business (Heilman and Chen, 2003). Specific entrepreneurial skills may also be related to higher personal appeal and subjective norms (Scherer et al., 1991; Carsrud, 1992) and could help a lot in an individual's decision to start a firm (Linan, 2008).

- Perceived barriers

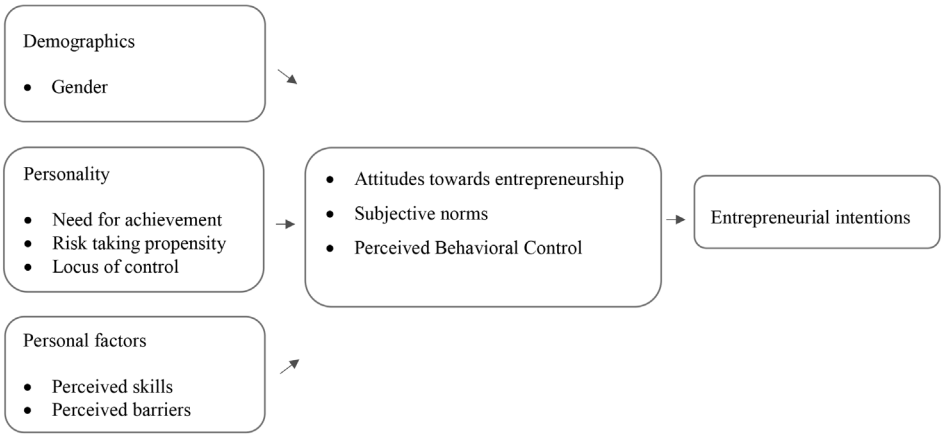
In entrepreneurship-related literature, several factors have been identified and are perceived as barriers to making the step towards entrepreneurship (Kouriloff, 2000). These barriers could be related to personal, social, cultural, psychological, political, or economic factors and may include time for one's family, stress levels, discrimination, political instability, unfavourable economic conditions, etc. Luthje and Franke (2003) found that that the contextual barriers perceived play a signifi-

cant role for the entrepreneurial behaviour of technical students. For example, when students perceive that there is an unfriendly environment for entrepreneurs, (due, for example, to a bank's unwillingness to provide loans), they have lower intention of becoming entrepreneurs.

2.4.4 Integrated Model

The model depicted below provides a holistic view of entrepreneurial intentions and its antecedents. The variables used are those of the planned behaviour theory, since this model is the most frequently one applied to entrepreneurship research and has proven to be of strong predictive value. Various personal and micro-social factors were used as antecedents, in the manner described above in the literature review.

Figure 1. Integrated model



3. Methodology

3.1 Data Collection and Sample Characteristics

The survey was conducted between February and June 2016 throughout Greece. A network of Universities (University of Macedonia, University of Crete, Technical University of Crete) and an NGO (Ergani), which specialises in female entrepreneurship and mentoring, was used to disseminate the questionnaires (in written form) to the target audience.

The questionnaire used was in Greek and a random sample took part in the survey. The language chosen for the questionnaire was Greek, since it would enable the respondents to fully understand the questions asked and would make them feel more comfortable with answering the questionnaire. In order to ensure consistency between the questions of the questionnaire, an independent bilingual expert,

who did not help create the original survey, translated the Greek version back into English (Brislin, 1970). No major differences between the original English and the back-translated version in Greek were found.

A total of 419 people from the whole of Greece participated in the survey, of which 38.4% were male and 61.6% female. The mean age of respondents was 27.6 years, while 63.7% were students, 7.2% unemployed, 10.8% worked for the public sector and 18.2% worked for the private sector. Furthermore, 48.5% of respondents were single, 31.2% were in a relationship and 20.3% were married. Besides, 4.7% of respondents had a monthly family income below 300 Euros, 11.5% were in the 301-700 Euros/month category, 34.6% in the 700-1200 Euros/month category, 28.4% in the 1200-2000 Euros/month category and, 20.8% in the above 2000 Euros/month category. Finally, 72.4% of respondents had no family background in entrepreneurship and 81.9% knew someone who had already started a business.

3.2 Measures

Based on the literature review and personal interviews of men and women entrepreneurs selected by ERGANI, a draft questionnaire was first drafted and then checked for content validity using a focus group. Minor changes were made to the initial questionnaire before its distribution. All main constructs in the questionnaire were assessed with self-reported measures based on multi-item scales; the 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, comprising 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 about starting a firm; I have a strong intention of starting a firm someday. 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: For me, being an entrepreneur implies more advantages than disadvantages; A career as an entrepreneur is attractive for me; If I had the opportunity and resources, I'd like to start a firm; Being an entrepreneur would mean great satisfaction for me; Among various options, I would rather choose to be an entrepreneur. These items were averaged to yield an attitude towards entrepreneurship score (Cronbach's reliability coefficient = 0.906)

- Perceived behavioural control

In order to measure perceived behavioural 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 be quite likely to succeed. These items were averaged to yield a perceived behavioural 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, namely: 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 one's 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 great achievement; My ambitions and my goals are high; I spend more time thinking about the 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 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 with 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). Items 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; Establishing professional contacts (Cronbach's reliability coefficient = 0,814).

- Perceived barriers

Finally, operationalisation of barriers was done based on prior studies conducted using different sources, such as Kourikoff (2000).

4. Results

Table 1 shows descriptive statistics of entrepreneurial intention and its antecedents. Despite the fact that entrepreneurial intentions are rather low, respondents have a rather favourable 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, which means that the social environment has a positive attitude towards entrepreneurship. The low level of entrepreneurial intentions suggests that there may be other variables that affect the relationship between attitude and actual behaviour. For example, people in our sample are quite risk-averse and this finding may, to some extent, explain the low level of entrepreneurial intentions. Findings reveal a very low perceived behavioural control, which means that individuals in Greece, during the economic crisis, perceive that entrepreneurial behaviour is not within their control. So, despite the fact that people may have a positive attitude towards entrepreneurship, the unstable economic climate of the country renders entrepreneurship not a feasible career path.

We also tested for gender differences in the aggregated entrepreneurial intention index, using a two-tailed t-test for the equality of means. The entrepreneurial intention of male respondents (M=3.93, SD=1.746) is higher than that of female respondents (M=3.67, SD= 1.647); however, the difference was not statistically significant ($t(416)=1.508$, $p>0.05$). The following figure provides a more detailed picture of the results.

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 Behavioural 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

Figure 2. Entrepreneurial intentions by gender

There were no statistically significant differences (except for perceived behavioural control, for which the difference was marginally significant), as can be seen in the tables below. This may be due to the fact that the bad economic conditions in the country affect attitudes, personal factors and personality variables similarly for men and women. However, men regard themselves more able to engage in entrepreneurial activities and they perceive that the entrepreneurial behaviour is more within their control than their female counterparts (see Tables 2 and 3).

Table 2. Gender differences in 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 Behavioural 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 of t-tests (gender differences)

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Entrepreneurial intentions	Equal variances assumed	1.035	.310	1.508	416	.132	.25564	.16947	-.07749	.58876
	Equal variances not assumed			1.488	325.088	.138	.25564	.17174	-.08223	.59351
Attitude towards entrepreneurship	Equal variances assumed	.014	.906	1.196	416	.233	.17006	.14223	-.10953	.44964
	Equal variances not assumed			1.191	335.273	.235	.17006	.14283	-.11089	.45100
Perceived behavioral control	Equal variances assumed	3.713	.055	3.379	415	.001	.42706	.12640	.17860	.67553
	Equal variances not assumed			3.291	310.974	.001	.42706	.12977	.17173	.68240

Subjective norm	Equal variances assumed	3.082	.080	.168	415	.866	.02284	.13577	-.24405	.28973
	Equal variances not assumed			.173	370.176	.863	.02284	.13207	-.23686	.28255
Locus of control	Equal variances assumed	.437	.509	.110	417	.913	.01246	.11358	-.21080	.23573
	Equal variances not assumed			.101	257.659	.919	.01246	.12302	-.22978	.25471
Need for achievement	Equal variances assumed	.231	.631	-.034	417	.973	-.00368	.10701	-.21403	.20668
	Equal variances not assumed			-.034	326.978	.973	-.00368	.10825	-.21663	.20927
Risk taking propensity	Equal variances assumed	.634	.426	1.439	417	.151	.17474	.12143	-.06395	.41344
	Equal variances not assumed			1.419	323.991	.157	.17474	.12317	-.06756	.41705
Perceived skills	Equal variances assumed	.003	.959	-.138	417	.890	-.01289	.09317	-.19604	.17025
	Equal variances not assumed			-.138	337.996	.890	-.01289	.09331	-.19644	.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 antecedent

		1	2	3	4	5	6	7
1	Entrepreneurial intentions							
2	Attitudes towards entrepreneurship	.689**						
3	Perceived Behavioural 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 of all variables with entrepreneurial intentions except for the risk-taking propensity, which is significant but reversely negative This means that the more risk-averse people are, the lower their intention to become self-employed. This finding is in accordance with prior research (e.g. Hmieleski and Corbett, 2006). Furthermore, there is rather strong correlation between entrepreneurial intentions and the attitude towards entrepreneurship; there is also modest correlation between entrepreneurial intentions, perceived behavioural control and subjective norms. These findings are similar to those of other studies, which used the theory of planned behaviour 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 rather low.

An exploratory factor analysis (varimax rotation, main component analysis) was selected, as far as barriers were concerned, to examine the pairwise relationships between individual variables and extract latent factors from the variables measured. Varimax rotation creates a solution in which factors are orthogonal (uncorrelated with one another), which can make results easier to interpret. The analysis performed brought the 36 different barriers down to nine factors, namely: public policy barriers (a=0.810), personal barriers (a=0.830), social barriers (a=0.772), economic 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 as a whole explain a total of 63.38% of the variance.

Table 5 shows descriptive statistics of the barriers perceived. As results show, the economic barriers, the public policy barriers and the business risk barriers are considered to be the most important ones 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 barriers perceived

	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
Economic 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

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

Table 6. Correlations between entrepreneurial intention and barriers perceived

		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 barriers perceived. 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 do.

Table 7. Gender differences in barriers perceived

	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						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Public policy barriers	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 barriers	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 barriers	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
Economic barriers	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 barriers	Equal variances assumed	.003	.955	-2.500	414	0.13	-.33135	.13253	-.59186	-.07083
	Equal variances not assumed			-2.504	336.372	0.13	-.33135	.13235	-.59168	-.07102
Networking barriers	Equal variances assumed	1.569	.211	-.2894	415	.004	-.38659	.13359	-.64919	-.12398
	Equal variances not assumed			-.2922	345.233	.004	-.38659	.13228	-.64677	-.12640
Stress barriers	Equal variances assumed	9.506	.002	-3.378	416	0.01	-.39062	.11564	-.61793	-.16330
	Equal variances not assumed			-3.255	297.477	0.01	-.39062	.12000	-.62677	-.15446
Regulation barriers	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 barriers	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 economic crisis, but also to explore antecedents that may enhance or hinder entrepreneurial intentions. Another goal was to identify gender similarities or differences concerning the entrepreneurial intention, but also its antecedents, drawing mainly on the theory of planned behaviour. This paper offers preliminary results of a study that took place between February and June 2016 and consists of 419 respondents.

An important finding is that respondents showed relatively low intention to start their own business, although their personal attitudes toward becoming an entrepreneur and perceived desirability were high. One explanation could be that the perceived risks associated with a 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, since, especially during times of financial instability, new businesses generate jobs, disseminate 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 behavioural 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 low level of entrepreneurial intention of 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 correlated with entrepreneurial intentions. Finally, there was a rather small positive correlation between entrepreneurial intentions and one's need for achievement and locus of control. The positive correlation is in agreement with 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 the most important barriers towards undertaking entrepreneurial activities rather than, for example, barriers related to the individual (such as stress caused by undertaking entrepreneurial activities or networking). This is in accordance with the findings of Kouriloff (2000) who pointed out that, instead of being the key-player in fostering entrepreneurship, the government may, in fact, be a source of several important barriers to entrepreneurship. This is why the role of the government and that of society as a whole, in creating an entrepreneurship-friendly environment, is essential for boosting entrepreneurial activity in the current period. Policy makers could use measures that include facilitation of access to financial services and funding, which are particularly important in times of economic recession, as well as reduction of bureaucracy, regulations and taxation (OECD, 2009). Such measures not only can render entrepreneurship a feasible (people in our study entrepreneurship is regarded as desirable, but less feasible) career path, but could also restore long-term growth for current businesses.

Our results show that, generally speaking, male and female potential entrepreneurs are quite similar in their motivation towards becoming self-employed during this period of economic crisis in Greece, as also indicated in literature on existing entrepreneurs (Brush, 1992; Veena and Nagaraja, 2013). Similarities were found, for example, in the risk-taking propensity, the skills perceived, the need for achievement, the locus of control, etc. If, however, both prospective and existing male and female entrepreneurs do not differ in their basic motivation to become entrepreneurs, the question of the gender gap in entrepreneurial activity still remains open and should be investigated by future research. For example, Pines *et al.* (2010) found gender similarities in motivation for starting a business, the sense of significance it provided and male/female entrepreneurial traits. The authors argue that women's inferior position in entrepreneurship is a result of social and economic

exclusion and lack of equality, and their inferior role is reinforced in times of 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 as members of the workforce may be overcome; however, obstacles regarding, for example, access to bank financing for women may still persist, since banks may face females who 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 need to be taken in order to raise female interest in entrepreneurship. Policy makers could 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 measures taken, women's special needs (e.g. children, care of older family members, etc.) should be taken into consideration. Educators could bring in class successful female entrepreneurs or organise excursions to companies founded by women in order to increase students' perception of female entrepreneurship as something feasible and desirable.

The outcome of the study is limited by the cultural environment of the sample, since it was only tested in the Greek business context (thus, there could be a case of potential bias), during a specific period of time, which means cannot be projected into the future or compared to the process of adopting entrepreneurship in other countries or in other business sectors.

References

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.

Aldrich, H., Renzulli, L. A., & Langton, N. (1998). Passing on privilege: Resources provided by self-employed parents to their self-employed children. *Research in Social Stratification and Mobility,* 16, 291-318.

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American psychologist*, *37*(2), 122.

Barbosa, S. D., Gerhardt, M. W., & Kickul, J. R. (2007). The role of cognitive style and risk preference on entrepreneurial self-efficacy and entrepreneurial intentions. *Journal of Leadership & Organizational Studies*, *13*(4), 86-104.

Begley, T. M., & Boyd, D. P. (1987). Psychological characteristics associated with performance in entrepreneurial firms and smaller businesses. *Journal of business venturing*, 2(1), 79-93.

Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention. *Academy of Management Review*, 13(3), 442-453.

Boden, R. (1996). Gender and Self-Employment Selection: An Empirical Assessment. *Journal of Socio- Economics*, 25(6), 671-682.

Borland, C.M. (1974). Locus of control, need for achievement and entrepreneurship. *Unpublished Dissertation.* University of Texas.

Boyd, N. G., & Vozikis, G. S. (1994). The Influence of Self-Efficacy on the Development of Entrepreneurial Intentions and Actions. *Entrepreneurship: Theory & Practice, 18*(4), 63-77.

Brislin, R.W., (1970). Back translation for cross-cultural research. *Journal of Cross-Cultural Psychology* 1 (3), 185–216.

Brockhaus, R.H. (1980) Risk taking propensity of entrepreneurs, *The Academy of Management Journal*, 23(3), pp. 509-20.

Brockhaus, R. H. (1975). Ie locus of control scores as predictors of entrepreneurial intentions. In *Academy of Management Proceedings* (Vol. 1975, No. 1, pp. 433-435). Academy of Management.

Brush, C. G. (1992). Research on women business owners: Past trends, a new perspective and future directions. *Entrepreneurship: Theory and Practice*, 16(4), 5-30.

Bullough, A., Renko, M., & Myatt, T. (2014). Danger Zone Entrepreneurs: The Importance of Resilience and Self-Efficacy for Entrepreneurial Intentions. *Entrepreneurship: Theory & Practice, 38*(3), 473-499.

Carr, J. C. & Sequeira, J. M. (2007). Prior family business exposure as intergenerational influence and entrepreneurial intent: A theory of planned behavior approach. *Journal of Business Research*, 60(10), 1090-1098.

Carsrud, A. L. (1992). *The psychology of entrepreneurship*. Stirling: University of Stirling.

Carter, N. M., Williams, M., & Reynolds, P. D. (1997). Discontinuance among new firms in retail: The influence of initial resources, strategy and gender. *Journal of Business Venturing*, 12(2), 125-145.

Chaganti, R. & Parasuraman, S. A. (1996). A study of the impacts of gender on business performance and management patterns in small businesses. *Entrepreneurship: Theory and Practice*, 21(2), 73-75.

Chen, C.C., Greene, P.G. & Crick, A. (1998). Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *Journal of Business Venturing*, 13, 295-316.

Coleman Alison (2014). Post-Eurozone Crisis: Greek Entrepreneurship Starts To Flourish. Available at:
http://www.forbes.com/sites/alisoncoleman/2014/07/25/hardly-a-tragedy-as-greek-entrepreneurship-begins-to-flourish/#4b3893a5592f

Cromie, S. (1987). Motivations of aspiring male and female entrepreneurs, *Journal of Organizational Behavior,* 8**,** 251-261.

Douglas, E. J., & Shepherd, D. A. (2002). Self-employment as a career choice: Attitudes, entrepreneurial intentions, and utility maximization. *Entrepreneurship theory and practice*, *26*(3), 81-90.

Engle, R. L., Dimitriadi, N., Gavidia, J. V., Schlaegel, C., Delanoe, S., Alvarado, I., & Wolff, B. (2010). Entrepreneurial intent: A twelve-country evaluation of Ajzen's model of planned behavior. *International Journal of Entrepreneurial Behavior & Research*, *16*(1), 35-57.

Fayolle, A., & Liñán, F. (2014). The future of research on entrepreneurial intentions. *Journal of Business Research, 67*(5), 663-666.

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.

Fitzsimmons, J. R., & Douglas, E. J. (2011). Interaction between feasibility and desirability in the formation of entrepreneurial intentions. *Journal of Business Venturing*, *26*(4), 431-440.

Greene, P. G., Hart, M. M., Gatewood, E. J., Brush, C. G., & Carter, N. M. (2003). Women entrepreneurs: Moving front and center: An overview of research and theory. Coleman White Paper Series, 3, 1-47.

Hansemark, O. C. (2003). Need for achievement, locus of control and the prediction of business start-ups: A longitudinal study. *Journal of Economic Psychology, 24*(3), 301-319.

Heilman, M. E., & Chen, J. J. (2003). Entrepreneurship as a solution: The allure of self-employment for women and minorities. *Human Resource Management Review*, *13*(2), 347-364.

Hmieleski, K. M., & Corbett, A. C. (2006). Proclivity for improvisation as a predictor of entrepreneurial intentions. *Journal of Small Business Management, 44*, 45–63.

Hundley, G. (2006). Family background and the propensity for self- employment. *Industrial Relations*, 45(3), 377-392.

Ioannidis, S., & Giotopoulos, I. (2014). Entrepreneurship in Greece 2012-2013: Evidence of recovery of small entrepreneurship, GEM, Foundation for Economic and Industrial Research.

Kelley D. J., Baumer B.S., Brush C. G., Greene P. G., Mahdavi M., Cole M. M., Dean M., Heavlow R. (2016/2017), Global Entrepreneurship Monitor: Report on Women's Entrepreneurship, Smith College and the Global Entrepreneurship Research Association (GERA).

Kelley D., Singer S. Herrington M. (2016). 2015/16 GlobalEntrepreneurship Monitor Report. Global Entrepreneurship Research Association (GERA)

Kent C., Van Auken S., Young D. (1982). Managers and entrepreneurs: Do lifetime experiences matter? In Vesper K. (Ed.), *Frontiers of entrepreneurship research* (pp. 516–525). Babson Park, US: Babson College

Kennedy, J., Denman, D. J., Renfrow, D. P., & Watson, D. B. (2003). *Situational factors and entrepreneurial intentions*. 16th Annual Conference of Small Enterprise Association of Australia and New Zealand, pp. 1-12.

Kouriloff, M. (2000). Exploring perceptions of a priori barriers to entrepreneurship: A multidisciplinary approach. *Entrepreneurship: Theory and practice*, *25*(2), 59-59.

Kristiansen, S. and Indarti, N. (2004). Entrepreneurial intention among Indonesian and Norwegian students, *Journal of Enterprising Culture*, 12(1), 55-78.

Krueger, N. F. & Carsrud, A. L. (1993). Entrepreneurial intentions: Applying the theory of planned behaviour. *Entrepreneurship & Regional Development: An International Journal,* 5(4), 315-330.

Krueger, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15(5-6), 411-432.

Laspita, S., Breugst, N., Heblich, S., & Patzelt, H. (2012). Intergenerational transmission of entrepreneurial intentions. *Journal of Business Venturing*, *27*(4), 414-435.

Linan, F. (2008). Skill and value perceptions: how do they affect entrepreneurial intentions? *International Entrepreneurship and Management Journal*, *4*(3), 257-272.

Liñán, F., & Chen, Y. W. (2009). Development and Cross-Cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship theory and practice*, *33*(3), 593-617.

Liñán, F., Rodríguez-Cohard, J. C., & Rueda-Cantuche, J. M. (2011). Factors affecting entrepreneurial intention levels: a role for education. *International entrepreneurship and management Journal*, 7(2), 195-218.

Ljunggren, E. and Kolvereid, L. (1996). New business formation: Does gender make a difference?, Women in Management Review, 11(4), 3-12.

Luthje, C. and Franke, N.(2003). The 'making' of an entrepreneur: Testing a model of entrepreneurial intent among engineering students at MIT, *R&D Management*, 33, 135-147.

Maes, J., Leroy, H., & Sels, L. (2014). Gender differences in entrepreneurial intentions: A TPB multi-group analysis at factor and indicator level. *European Management Journal*, 32(5), 784-794.

Matthews, C.H. and Moser S.B.(1996). A longitudinal investigation of the impact of family background and gender on interest in small firm ownership. *Journal of Small BusinessManagement,* Vol.34, No. 2, pp. 29-43.

McClleland, D.C. (1961).*The achieving society*, Van Nostrand, New York.

Menaghan, E. G. & Parcel, T. L. (1995). Social sources of change in children's home environments: The effects of parental occupational experiences and family conditions. *Journal of Marriage and the Family*, 57(1), 69-84.

Mueller, S. L., & Thomas, A. S. (2001). Culture and entrepreneurial potential: A nine country study of locus of control and innovativeness. *Journal of Business Venturing, 16*(1), 51-75.

Norton Jr, W. I., & Moore, W. T. (2006). The influence of entrepreneurial risk assessment on venture launch or growth decisions. *Small Business Economics*, *26*(3), 215-226.

OECD (2009). The Impact of the Global Crisis on SME and Entrepreneurship Financing and Policy Responses.

Ozaralli, N., & Rivenburgh, N. K. (2016). Entrepreneurial intention: antecedents to entrepreneurial behavior in the USA and Turkey. *Journal of Global Entrepreneurship Research*, *6*(1), 3.

Peterman, N. E., & Kennedy, J. (2003). Enterprise education: Influencing students' perceptions of entrepreneurship. *Entrepreneurship theory and practice*, *28*(2), 129-144.

Pines, A., Lerner, M., & Schwartz, D. (2010). Gender differences in entrepreneurship: equality, diversity and inclusion in times of global crisis. *Equality, diversity and inclusion: An International journal*, *29*(2), 186-198.

Ripsas, S. (1998). Towards an interdisciplinary theory of entrepreneurship, *Small Business Economics*, 10(2), pp. 103-15.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs*, *80*(1), 1-28.

Rychlak, J. F. (1981). *Introduction to personality and psychotherapy: A theory- construction approach.* Boston: Houghton Mifflin.

Sarri, A. & Laspita, S. (2014). Student Entrepreneurship in Greece: A Survey of Intentions and Activities. Greek Report of the GUESSS Project 2013/2014. Thessaloniki: University of Macedonia, Greece.

Schaper, M. & Volery, T.(2007).*Entrepreneurship and small business*, 2, illustrated ed. John Wiley & Sons Australia, Milton, Qld.

Scherer, R. F., Brodzinsky, J. D., & Wiebe, F. A. (1991). Examining the relationship between personality and entrepreneurial career preference. *Entrepreneurship and Regional Development*, 3, 195–206.

Schlaegel, C., & Koenig, M. (2014). Determinants of Entrepreneurial Intent: A Meta-Analytic Test and Integration of Competing Models. *Entrepreneurship Theory and Practice, 38*(2), 291-332.

Shapero, A.(1984). *The Environment for Entrepreneurship* (C.A. Kent, ed.), Lexington Books, Lexington, Ma., pp. 21-40

Shapero, A. & Sokol, L. (1982). Social dimensions of entrepreneurship. In C.A. Kent,D.L. Sexton, & K.H. Vesper (Eds.), *The encyclopedia of entrepreneurship* (pp. 72–90). Englewood Cliffs, NJ: Prentice-Hall.

Souitaris, V., Zerbinati, S., & Al-Laham, A. (2007). Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources. *Journal of Business Venturing*, 22(4), 566-591.

Verheul, I. & Thurik, R. (2001). Start-Up capital:" Does gender matter?". *Small Business Economics*, 16(4), 329-346.

Wang, C. K. & Wong, P. (2004). Entrepreneurial interest of university students in Singapore. *Technovation,* Vol. 24, pp.163-172.

Veena, M., & Nagaraja, N. (2013). Comparison of Male and Female Entrepreneurs–An Empirical Study. *International Journal of Engineering and Management Research*, *3*(6), 138-143.