



Student Entrepreneurship in Greece: A Survey of Intentions and Activities

Greek Report of the GUESSS Project 2013/2014

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Preface

Entrepreneurial activities, that include the creation of new firms and the creation and distribution of value assuming the calculated risks, have been associated with economic growth, employment generation, innovation, the acceleration of structural changes, the improvement of the competitive position of a nation and an increase in national productivity. Start-ups do not resist change, they are flexible and innovative. Entrepreneurs play a central role in the process of creative destruction by recognizing new opportunities and turning them into business ideas and by bringing new technologies and concepts into real commercial use, which is especially important in periods of economic crisis.

The last years Greece is undergoing a major economic crisis that leads among others to recession and the loss of jobs. The country has been undergoing major changes in order to overcome the crisis and a widely accepted opinion expressed by politicians and academics is that in order to succeed in growth, entrepreneurship, both as an activity and as an attitude, in the country should prevail. The creation of an entrepreneurial culture that includes the internalization of entrepreneurial values is of great importance for the country because the attitude of the Greek society towards entrepreneurship was not characterized as positive and Greek people associated entrepreneurship mainly with large and established companies. Until recently the entrepreneur has often been labeled as a “fraud man or a manipulator of the market” and profit resulting from entrepreneurial activities has been considered as negative and reprehensible. In such climate, young people were kept from engaging in entrepreneurial activities. However, this situation and this perception of entrepreneurship in Greece has changed allowing entrepreneurs to envision their future without the distortions of past.

As students in Greece represent in a great extent the entrepreneurs of tomorrow, their entrepreneurial plans and activities will shape tomorrow’s Greek society but also the overall prosperit of the country. The GUESSS project gives us a good opportunity to examine the entrepreneurial spirit of Greek students and of Greek universities.

We thank all students that participated in the study and the University of Macedonia for providing financial support.

Yours sincerely,

Prof. Dr. Katerina Sarri

Dr. Stavroula Laspita

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1. Introduction

1.1. Starting point and aims of GUESSS

The international research project GUESSS stands for "Global University Entrepreneurial Spirit Students´ Survey" and has been founded at the Swiss Research Institute of Small Business and Entrepreneurship at the University of St.Gallen (KMU-HSG) in 2003. Until 2006 it was labeled ISCE (International Survey on Collegiate Entrepreneurship). Its research focus is on students' entrepreneurial intentions and activities around the globe.

With every data collection wave, GUESSS has grown and has become more internationally, culminating in the 6th edition in 2013/2014 with 34 participating countries.

1.2. GUESSS Research Goals

The aims of GUESSS can be summarised as follows:

- Systematic and long-term observation of entrepreneurial intentions and activities of students
- Identification of antecedents and boundary conditions in the context of new venture creation and entrepreneurial careers in general
- Observation and evaluation of Universities' activities and offerings related to the entrepreneurial education of their students

GUESSS intends to create value for different stakeholders:

- Participating countries generate insights on their respective basic conditions for entrepreneurship in general
- They also learn more about the entrepreneurial power of their students
- Participating Universities are enabled to assess the quantity and quality of their offerings in the context of entrepreneurship
- Politics and public are sensitized for entrepreneurship in general and new venture creation in particular, and hopefully identify need for action
- Students can benefit from the implementation of respective actions in the long term

1.3. Theoretical framework

The theoretical foundation of GUESSS is the Theory of Planned Behaviour (Ajzen, 1991, 2002; Fishbein & Ajzen, 1975). Its underlying argument is that the intention to perform a specific behaviour is influenced by three main factors: attitude toward the behaviour, subjective norms, and perceived behavioural control.

At GUESSS, the focus is on career choice intentions in general and entrepreneurial intentions in particular. Additional factors that may impact the evolvement of career choice or entrepreneurial intentions through the three main elements of TPB are examined. Examples are the university context, the family context, personal motives, and the social/cultural context. The overall theoretical framework is illustrated in the following figure (Sieger, Fueglistaller, & Zellweger 2014).

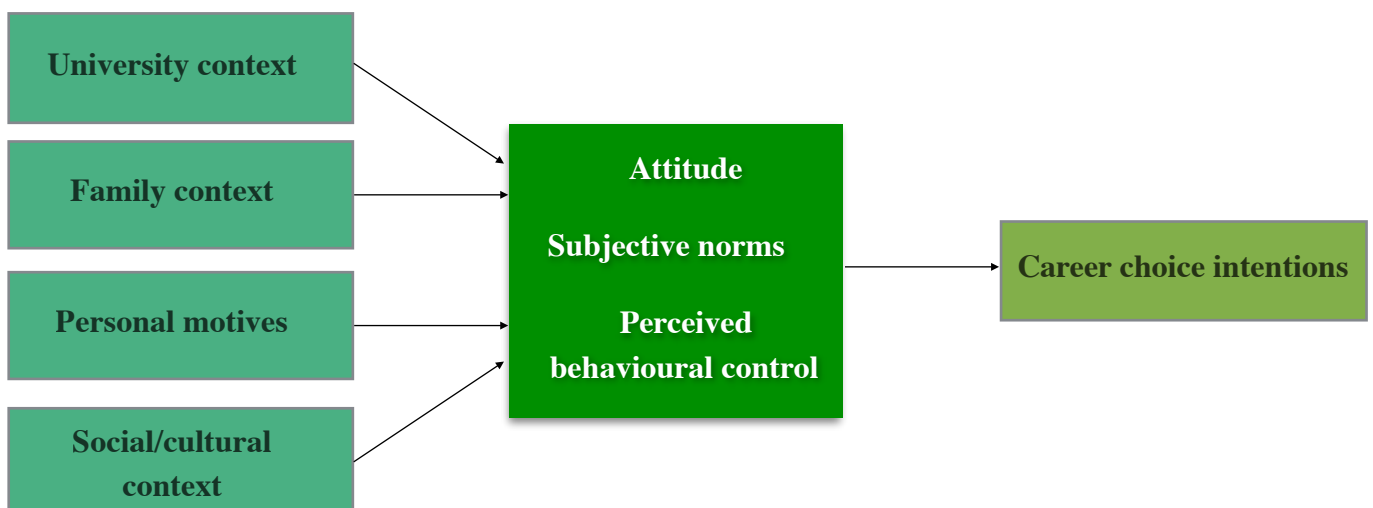


Figure 1: Theoretical framework of GUESSS

1.4. Project organisation and data collection procedure

The GUESSS project is organised by the KMU-HSG at the University of St.Gallen (Switzerland). The responsible project manager is Assistant Professor Philipp Sieger. The supervisory board consists of Prof. Urs Fueglistaller (President), Prof. Thomas Zellweger, Prof. Norris Krueger, and Dr. Frank Halter.

Every participating country is represented by one main team, responsible for the recruitment of a large number of other universities in the specific country. Each country representative is also

responsible for writing the national reports. A list of all country representatives can be found in the Appendix.

For each data collection wave since 2003, the GUESSS core team at the University of St.Gallen has been developing a comprehensive questionnaire. The link to the online survey is sent out to the different country teams who then forward it to their own students and to their university partners (who then also forward it to their respective students). It is of great importance to notice that the number of students that actually receive a personal invitation to take part in the survey is sometimes relatively difficult to estimate. The reason is that not all universities that take part in GUESSS sent out personal emails to students or that they send out those emails to the total student population, but only to a subgroup of students. In many cases, the GUESSS survey is announced in newsletters, on websites, or on Facebook pages.

1.5. The 2013/2014 GUESSS International Project in numbers

In the 2013/2014 survey 109.026 students from 34 countries participated in the study. The respondents' mean age is 23.1 years (median = 22 years) and 58.4% of them are female. 76.1% of all students are undergraduate (Bachelor) students, with 19.9% being graduate (Master) students. 22.4% of all students are studying in the field of "Business / Management", which constitutes the largest group in the sample.

The following table lists response rates in all participating countries. However the overall response rate may be an underestimation of the response rate in terms of students invited because we do not have information at the university level in terms of exactly how many students were invited to participate, which diminishes our ability to calculate exact response rates at the university or country level.

Table 1: Universities, students and response rate of the participating countries

	Responses	Valid Percent	# of universities	# addressed students	Response rate
ARG	190	.2	14	1800	10.6
AUS	495	.5	6	3500	14.1
AUT	4,220	3.9	34	149587	2.8
BEL	402	.4	16	n.a.	n.a.
BRA	12,561	11.5	104	220000	5.7
CAN	509	.5	1	7436	6.8
COL	801	.7	22	5700	14.1
DEN	1,027	.9	10	28000	3.7
ENG	654	.6	20	n.a.	n.a.
ESP	10,545	9.7	21	126870	8.3
EST	1,391	1.3	23	33880	4.1
FIN	704	.6	12	33943	2.1
FRA	332	.3	14	14450	2.3
GER	10,570	9.7	44	292000	3.6
GRE	435	.4	8	2500	17.4
HUN	8,844	8.1	31	161000	5.5
ISR	1,086	1.0	17	4500	24.1
ITA	7,765	7.1	46	142698	5.4
JPN	890	.8	19	5835	15.3
LIE	203	.2	2	607	33.4
LUX	153	.1	4	6457	2.4
MEX	637	.6	17	5000	12.7
MYS	2,452	2.2	21	7400	33.1
NED	9,907	9.1	67	268808	3.7
NGR	7	.0	1	n.a.	n.a.
POL	11,860	10.9	37	115000	10.3
POR	213	.2	3	3000	7.1
ROM	277	.3	10	n.a.	n.a.
RUS	4,578	4.2	35	28600	16.0
SCO	280	.3	11	68900	0.4
SIN	6,471	5.9	9	88990	7.3
SLO	903	.8	44	22000	4.1
SUI	7,419	6.8	33	87200	8.5
USA	245	.2	2	25768	1.0
Total	109,026	100.0	759	1961429	5.5

Source: Sieger, Fueglistaller, & Zellweger 2014

2. GUESSS in Greece

Greece is participating in the survey since 2008 and is represented by the University of Macedonia and Professor Aikaterini Sarri. A total of 435 students from 7 universities participated in the 2013 study.

2.1. Participating Universities

In 2013 students from 7 universities participated in the study and the majority of them come from the University of Macedonia followed by students from the Hellenic Open University. The exact distribution can be found in the Figure 2.

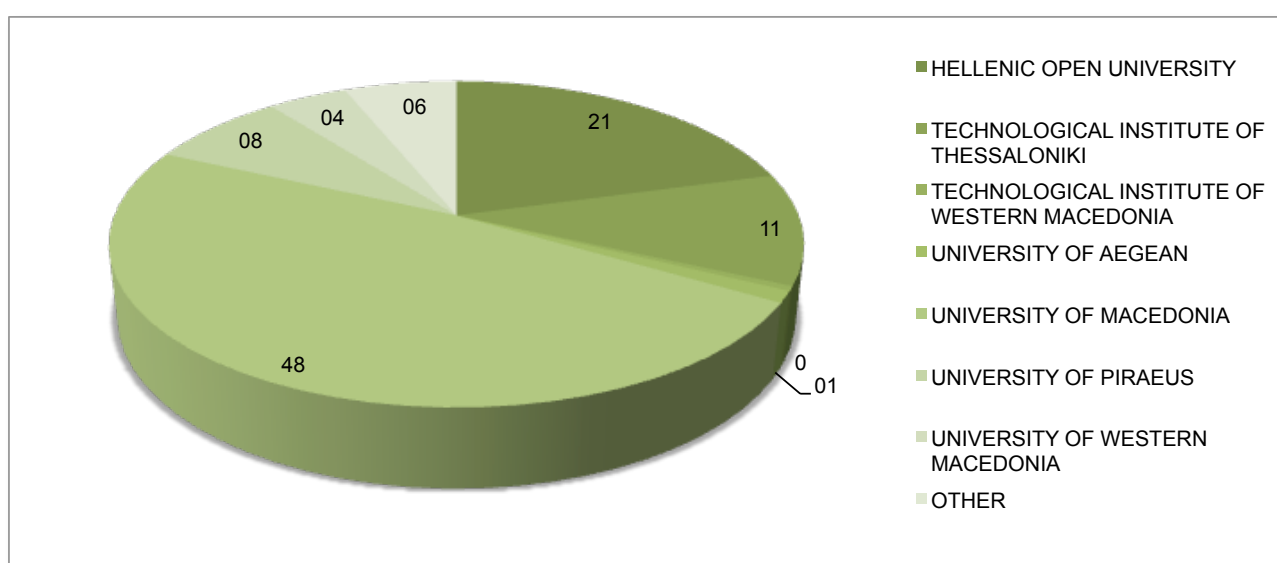


Figure 2: Participating Universities

2.2. Sample characteristics

The respondents' mean age is 24.5 years and 55.8% of them are female. 31.1% of the students stated that they have a regular job next to their studies (which is rather typical for students studying at the Hellenic Open University). 96.3% of the students had the Greek nationality. More information about the level and the field of study of the respondents can be found in the following figures.

2.2.1. Level of study

Students were asked about their level of study. The great majority of students (75,5%) are undergraduate (Bachelor) students, with 13% being graduate (Master) students. The share of students on other levels like PhD students , Post-doc students and MBA students is smaller (5%, 1% and 5% respectively). The results are also shown in the figure below.

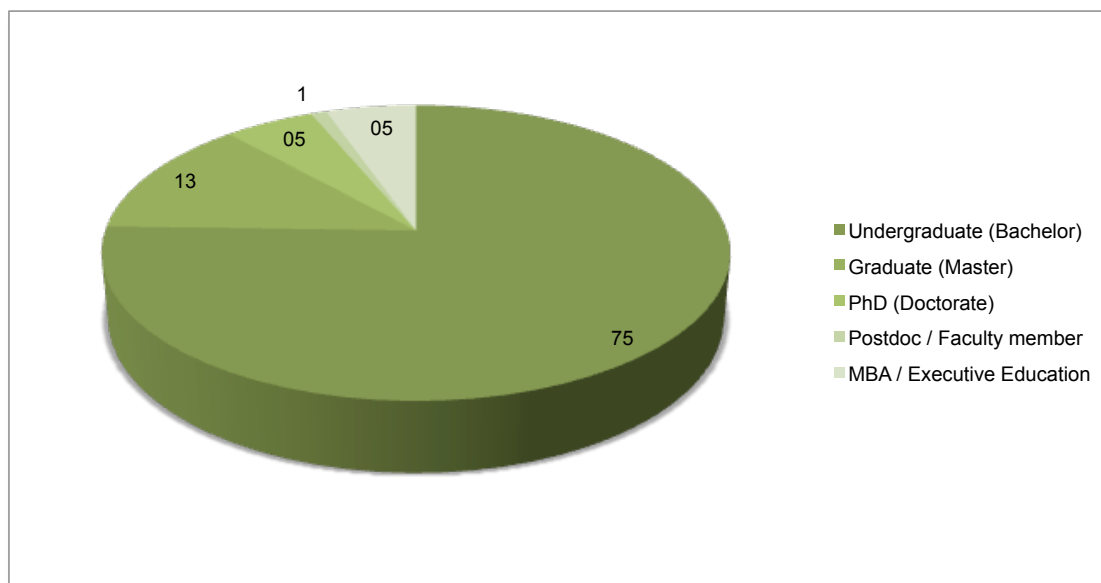


Figure 3: Level of study

2.2.2. Field of study

As far as the field of study is concerned, the majority of the Greek students are studying information science and business/management followed by economics and other social sciences like education. The least represented fields of study are medicine and health sciences, art and sciences of arts and mathematics and natural sciences. The exact results are shown in the figure below.

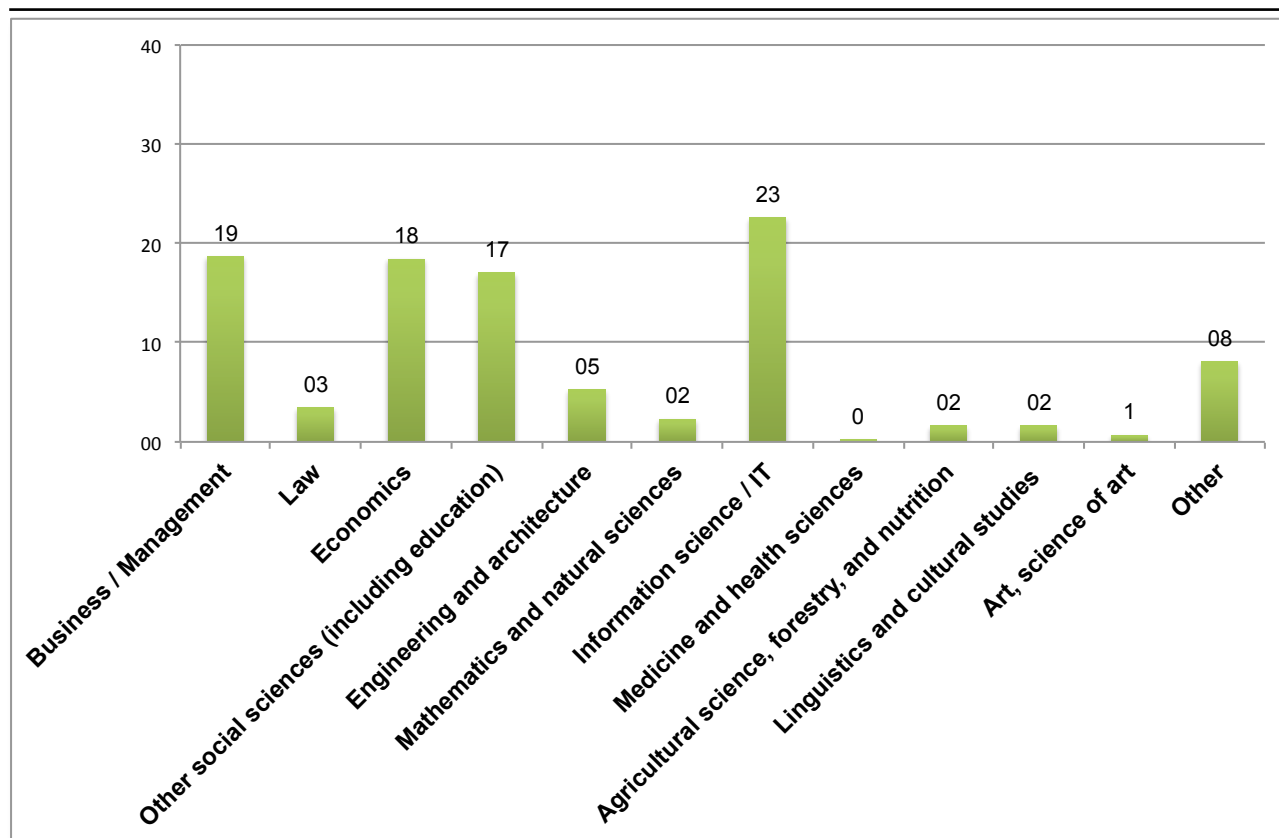


Figure 4: Field of study

3. Results

3.1. Career Choice Intentions

One of the most central aims for GUESSS is to capture students' career choices intentions in the near future but also in the long-term. The following figure reports students' occupation preference right after the completion of their studies and five years after graduation.

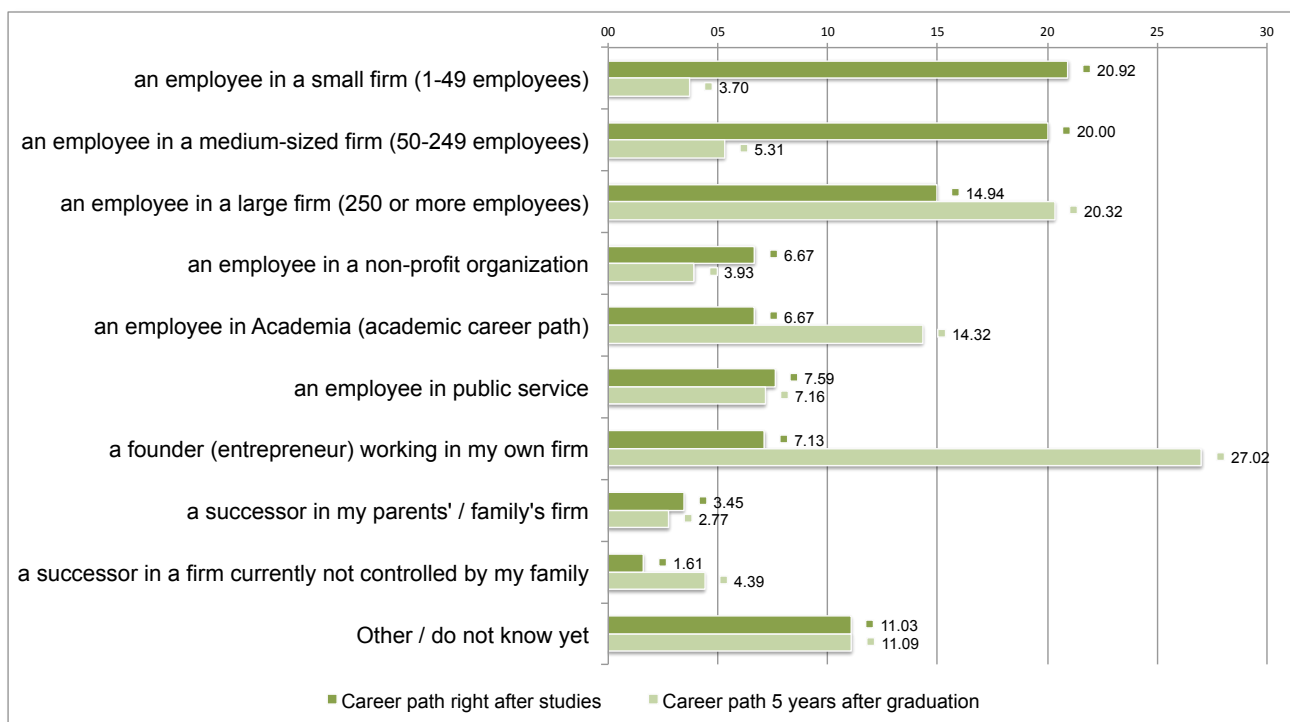


Figure 5: Career Choice Intentions directly after the studies and five years after graduation

The first six options illustrate career paths as an employee, be it in the private sector, in the public sector, or in a non-profit organization. The first three options, namely being employed in a small, medium-sized, or large firm, are clearly the most preferable ones directly after studies. Referring to five years later, we see that their attractiveness decreases significantly for working as an employee in a small and in a medium-sized firm but increases for working in a large firm. This may be due partly to the economic crisis as large companies may provide a more secure and stable working environment compared to smaller ones.

The figure also shows that preference for entrepreneurial activities of any kind immediately after graduation is rather low. Five years after graduation the picture changes to a great extent. The percentage of students that would like to work as a founder in their own company increases from

7.1% to 27.0%. It seems as though students would initially like to gain working experience so as to gain knowledge in various field such as management, finance, marketing, etc. and then take the risks of becoming self-employed.

This figure presents another interesting result. While in the previous years the public sector was a very attractive career path (especially for female students) in the Greek sample both directly after the studies but also 5 years after graduation, we see that this picture changed in the 2014 data. For example in 2008, that is before the outbreak of the Greek economic crisis, 20.8% of the students wanted to work in public sector, directly after the studies and 27.5%, five years after graduation. In 2013 the percentage for both timespans is around 7, which shows that working at the public sector is no longer an attractive career path. The public sector employment conditions after the reforms that happened the years during the crisis probably no longer provide job security, uncertainty avoidance and a structured career progression.

Very interesting is the fact that there is a great amount of students that would like to follow an academic career path not directly after their studies but 5 years after graduation (14.3%). Also the number of people that are undecided as far as their career path is concerned is quite high in both time spans (around 11%). These may be undergraduate students in the first years of their studies.

To illustrate the relevance of different types of occupations and the respective shifts depending on the time horizon, we group the different career options into “Employee”, “Founder”, and “Successor”. The results are shown in figure below.

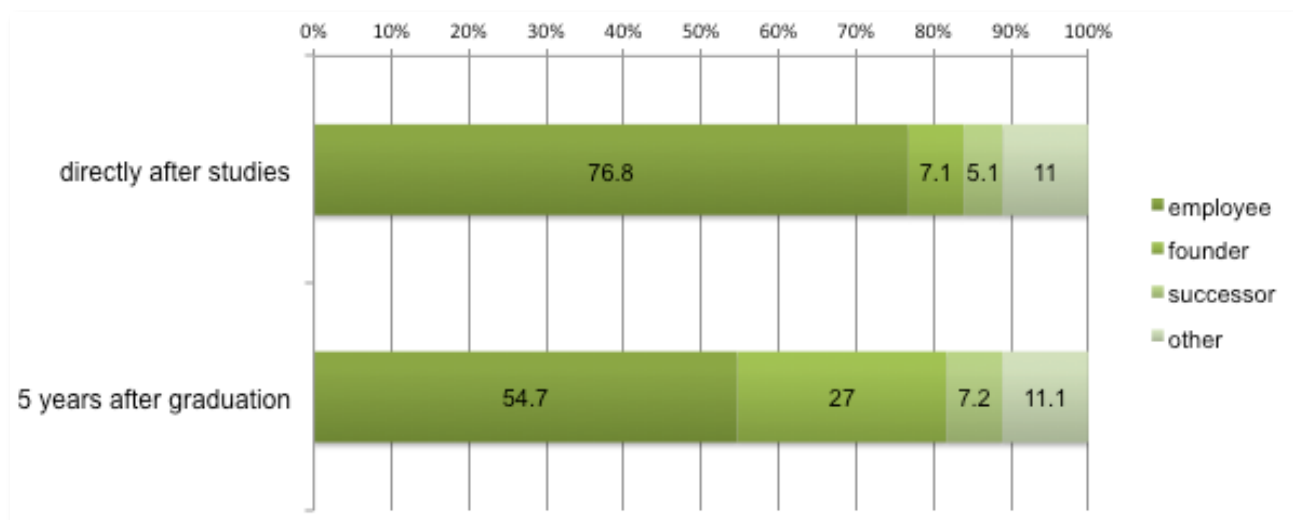


Figure 6: Career choices directly after studies and five years after graduation

Figure 6 also illustrates students' clear preference for paid-employment directly after the studies and a shift towards self-employment five years after graduation. The amount of successors slightly increases five years after graduation and this shows that people mostly prefer to start their business from scratch than to take-over an existing one.

In recent years, the interest of scholars and practitioners in gender aspects of entrepreneurship has been increasing significantly (Sarri & Trihopoulou, 2012; Piachentini, 2013) as female entrepreneurship is considered to be an important source of growth, employment, and innovation (Piacentini, 2013; Birley, 1989; Verheul and Thurik, 2001). Therefore we take a closer look at male and female students' future career choices, directly after their graduation and five years after graduation. The figures below (figures 7 & 8) show that directly after the studies both gender have a clear preference towards paid-employment. Five years after graduation the share of intentional founders among males is considerably higher than among females (33.5% versus 22.2%). We see that the preference of a career path as a successor, be it in the parents' firm (if existing) or in a firm not owned by one's parents, stays the same for the male sample but increases for the female sample. The amount of undecided students is quite large for both genders in both time spans.

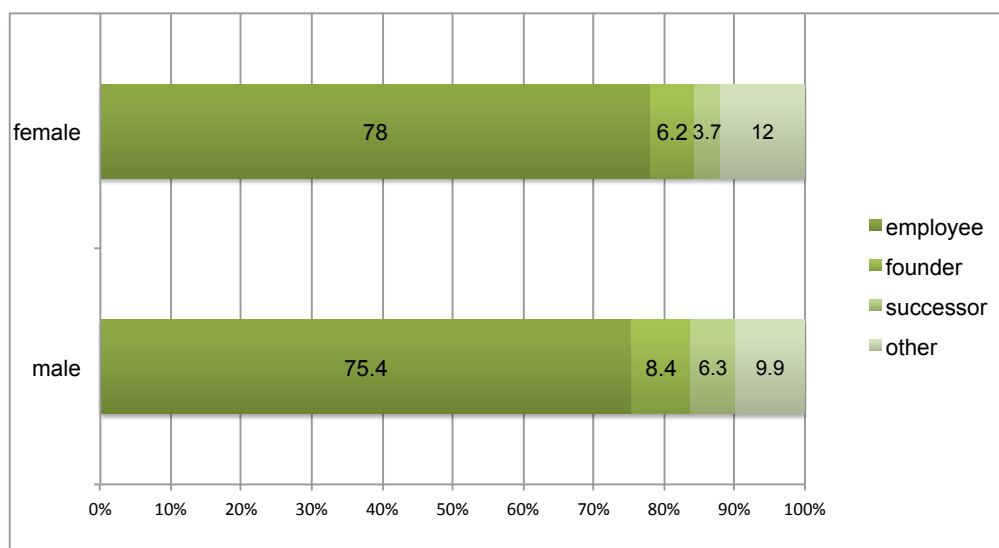


Figure 7: Career choice intentions by gender directly after studies

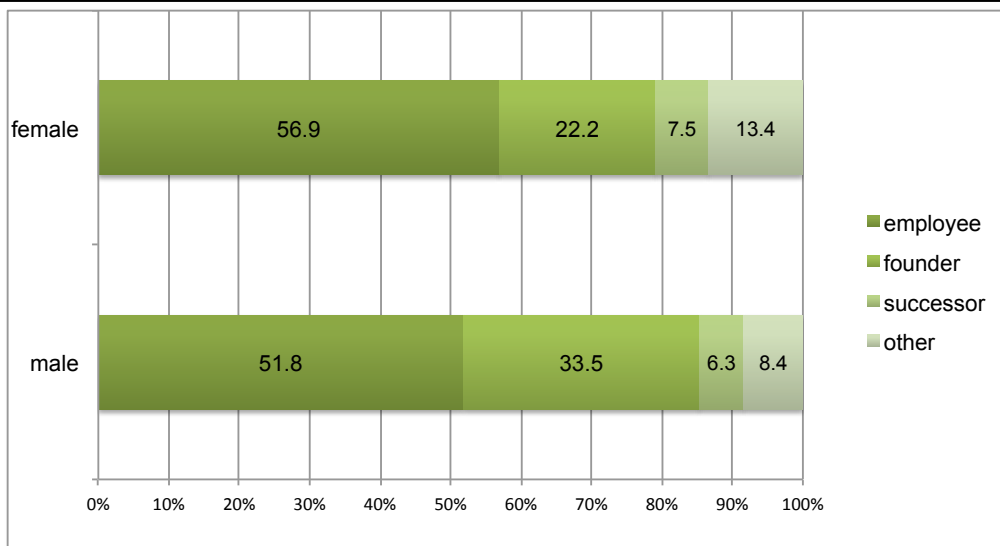


Figure 8: Career choice intentions by gender five years after graduation

Entrepreneurial intentions and future career choices of individuals have been found to differ across educational specializations (e.g., Kristiansen and Indarti, 2004). Hence, we split our analysis of career choice groups depending on the field of study¹.

Right after studies, students of all disciplines prefer a career path as an employee. The share of intentional founders is of equal size among SSC and BECL students (7.4%). NSM students exhibit a slightly higher share (7.9%) of intentional founders. The percentage of SSC students who is undecided is quite high (17.3%). Five years after graduation interest towards entrepreneurship increases for students of all disciplines and remains higher for NSM students. Students of SSC and NSM files of study show a higher interest in becoming a successor five years after graduation.

¹ BECL includes “Business / Management”, “Economics”, and “Law”; NSM includes “Engineering and architecture”, “Mathematics and natural sciences”, “Information science / IT”, “Agricultural science, forestry, and nutrition science”, and “Medicine and health sciences”; and SSC comprises “Linguistics and cultural studies (including psychology, philosophy, religion)” as well as “Other social sciences (including education)”. “Other”, finally, includes the actual “Other” category plus “Art, science of art”.

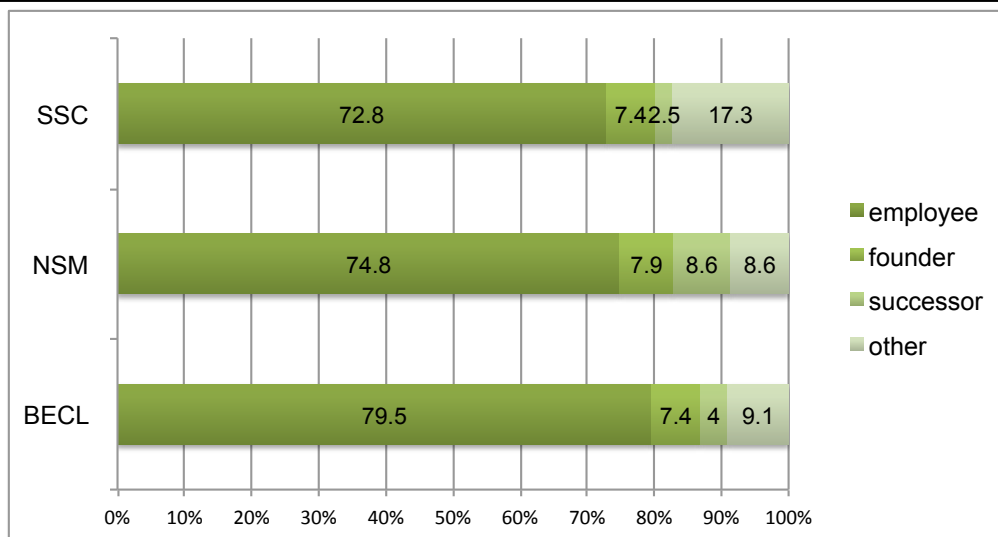


Figure 9: Career choice intentions by field of study directly after studies

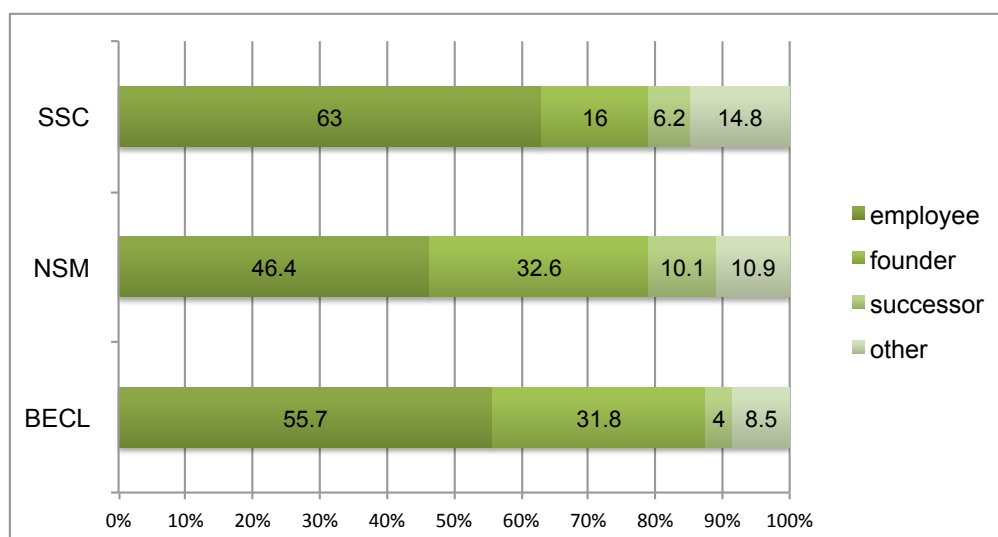


Figure 10: Career choice intentions by field of study five years after graduation

3.2. Entrepreneurial intentions

The intention to start a company is a central part of the entrepreneurial process and an immediate antecedent of actual behaviour (Ajzen, 1991). Entrepreneurial intentions refer to “one's judgements about the likelihood of owning one's own business” (Crant, 1996, p. 43) and also include an individual's general plan to become an entrepreneur (Laspita et al. 2012). Research has shown that entrepreneurial intentions should be a more powerful predictor of entrepreneurship as compared for example to individual and social variables (Krueger et al., 2000).

In order to capture the extent of students' entrepreneurial intentions, students were asked to indicate their level of agreement to a number of statements from 1 (strongly disagree) to 7 (strongly agree) to show their general intention to become an entrepreneur in the future (Linan & Chen, 2009). This approach allows for a more accurate presentation of students' entrepreneurial intentions and a more precise evaluation of the entrepreneurial spirit of students that shift away from a simple 'yes' or 'no' response to the question whether they are going to become entrepreneurs some time in the future. The results are presented in the following table.

Table 2: Strength of entrepreneurial intentions

	N	Mean	SD
I am ready to do anything to be an entrepreneur.	379	3.39	1.651
My professional goal is to become an entrepreneur.	379	3.69	1.704
I will make every effort to start and run my own firm.	376	3.85	1.783
I am determined to create a firm in the future.	380	3.93	1.825
I have very seriously thought of starting a firm.	383	3.92	1.943
I have the strong intention to start a firm someday.	381	4.23	1.931

Furthermore, an aggregated entrepreneurial intention index was generated by calculating the mean of all six answers/variables from Table 2. The average value of this variable is 3.82 for Greece which above the international average of 3.7.

In addition, we tested for gender differences and found that male students' interest towards entrepreneurship is higher than female students' interest, which in accordance with previous studies (e.g. Scheiner et al., 2008). We also tested for gender differences in the aggregated entrepreneurial intention index. The entrepreneurial intention for male respondents (4.16) is significant higher than that for female respondents (3.54). ($t(369)=3.88$ $p<0.001$). The following figure provides a more detailed picture of the results.

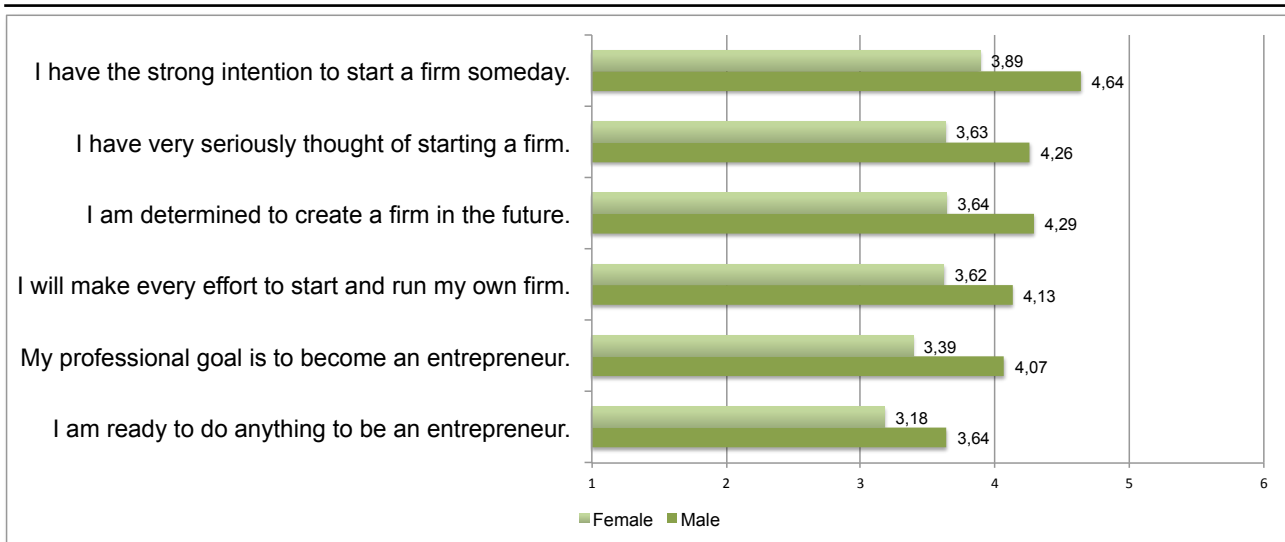


Figure 11: Strength of entrepreneurial intentions across gender

3.3. Motivation towards entrepreneurship

An important determinant of career choice intentions in general and entrepreneurial intentions in particular are career motives (Cromie, 1987). Motives have been defined as a “recurrent concern for a goal state based on a natural incentive – a concern that energizes, orients and selects behavior” (McClelland, 1987). As the following figure shows (scale from (1=not important at all to 7=very important), “realize your dream” is the strongest motive for the Greek sample and the strongest motive around the globe, followed by “create something”. The least important motives are “have authority” and “be your own boss”.

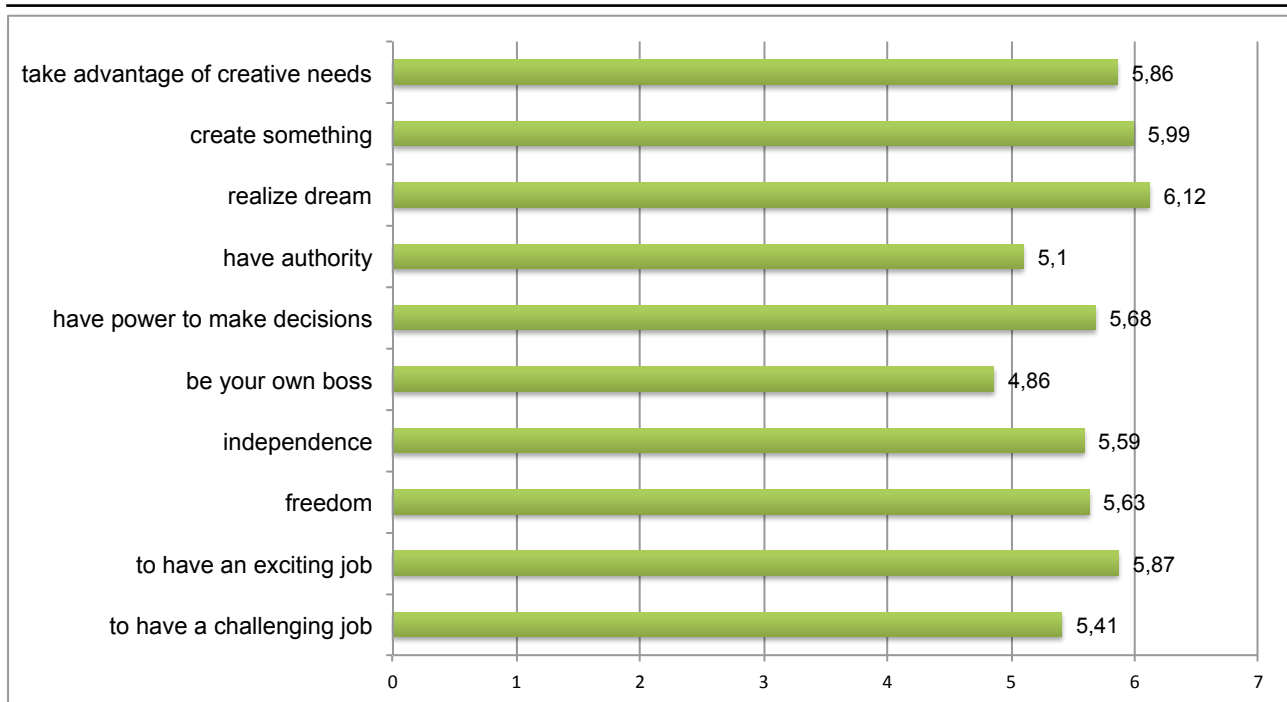


Figure 12: Motivation towards entrepreneurship

3.4. The university context

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 prospective entrepreneurs. 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 credible and famous role models. Showing students that being self-employed is an activity supported by the community and the positive personal feelings and rewards can increase perceptions of desirability towards entrepreneurship. Furthermore specialized courses in entrepreneurship could raise the confidence that people need in order to become self-employed (Dyer, 1994).

Hence, students were asked to what extent they have been attending entrepreneurship- related courses and offerings. As figure 13 shows, 11,6% of all students are studying in a specific program on entrepreneurship. 41,4% of respondents did not attend any entrepreneurship-related course at all. Around 60% of the students have attended an entrepreneurship course either as a compulsory or as an elective course (multiple answers were possible).

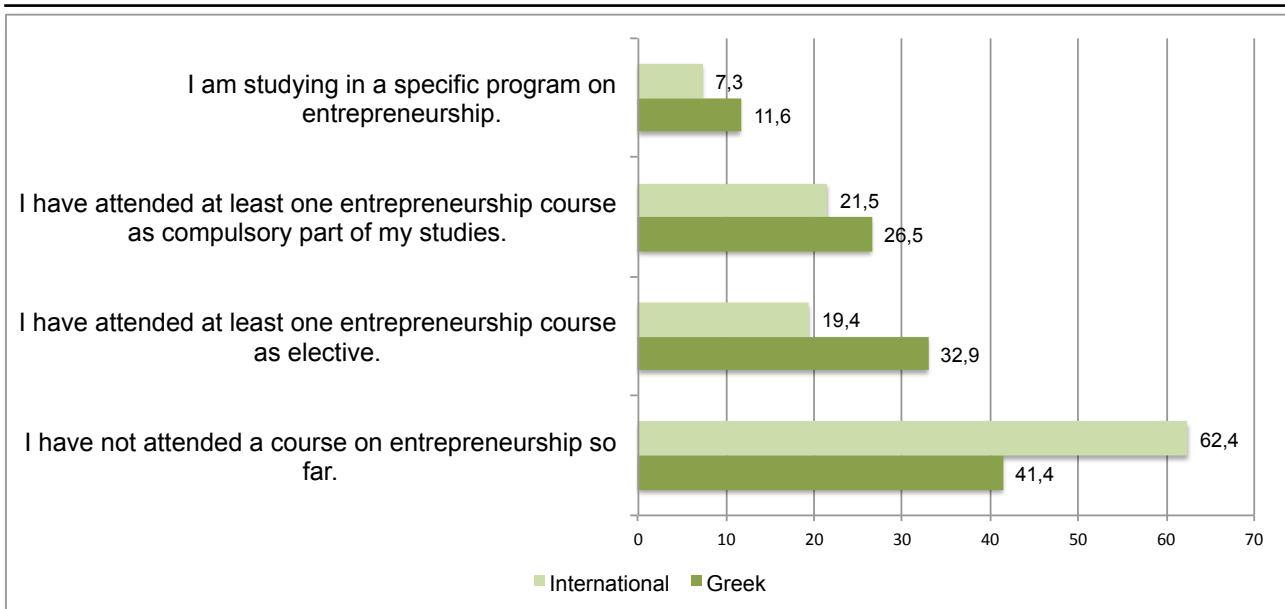


Figure 13: Attendance of entrepreneurship courses

GUESSS aims to examine not only the entrepreneurial spirit of students but also the entrepreneurial spirit of universities. Therefore, students were asked to indicate the extent to which they agree to the following statements (Luethje & Franke, 2004). Answers ranged from 1 (not at all) to 7 (very much).

Table 3: Items to assess the entrepreneurial climate in universities

Item	Item text
1	The atmosphere at my university inspires me to develop ideas for new businesses.
2	There is a favourable climate for becoming an entrepreneur at my university.
3	At my university, students are encouraged to engage in entrepreneurial activities.

The average importance of the different factors is illustrated in the next table for the Greek and the international sample. Both the Greek and the international sample reveal that universities have still a lot of work to do in order to be regarded as entrepreneurial as students assess the entrepreneurial climate in their universities quite neutrally.

Table 4: Entrepreneurial climate assessment in Greece and internationally

	Item text	Greek sample	International sample
1	The atmosphere at my university inspires me to develop ideas for new businesses.	4.12	3.85
2	There is a favorable climate for becoming an entrepreneur at my university.	3.97	4.06
3	At my university, students are encouraged to engage in entrepreneurial activities.	4.22	4.17

The knowledge about entrepreneurship that students acquire when attending an entrepreneurship course or programme is very important, as knowledge may lead to an increased opportunity identification ability that could raise students' entrepreneurial attitudes and intentions (Souitaris et al., 2007). We thus asked them to indicate the extent to which they agree to five statements about their learning progress during their studies (answers ranged from 1=not at all to 7=very much). The question started with "The courses and offerings I attended..." (cf. Souitaris et al. 2007):

Table 5: Items used to assess entrepreneurial learning

Item	Item text
1	...increased my understanding of the attitudes, values and motivations of entrepreneurs.
2	...increased my understanding of the actions someone has to take to start a business.
3	...enhanced my practical management skills in order to start a business.
4	...enhanced my ability to develop networks.
5	...enhanced my ability to identify an opportunity.

The results in the following figure show that there is clearly room for improvement. It seems that courses and other offerings enhance students' ability to identify an opportunity and enhance their understanding of entrepreneurial attitudes, values and motivations. Still steps have to be taken in order to enhance the ability to develop networks and to gain practical management skills.

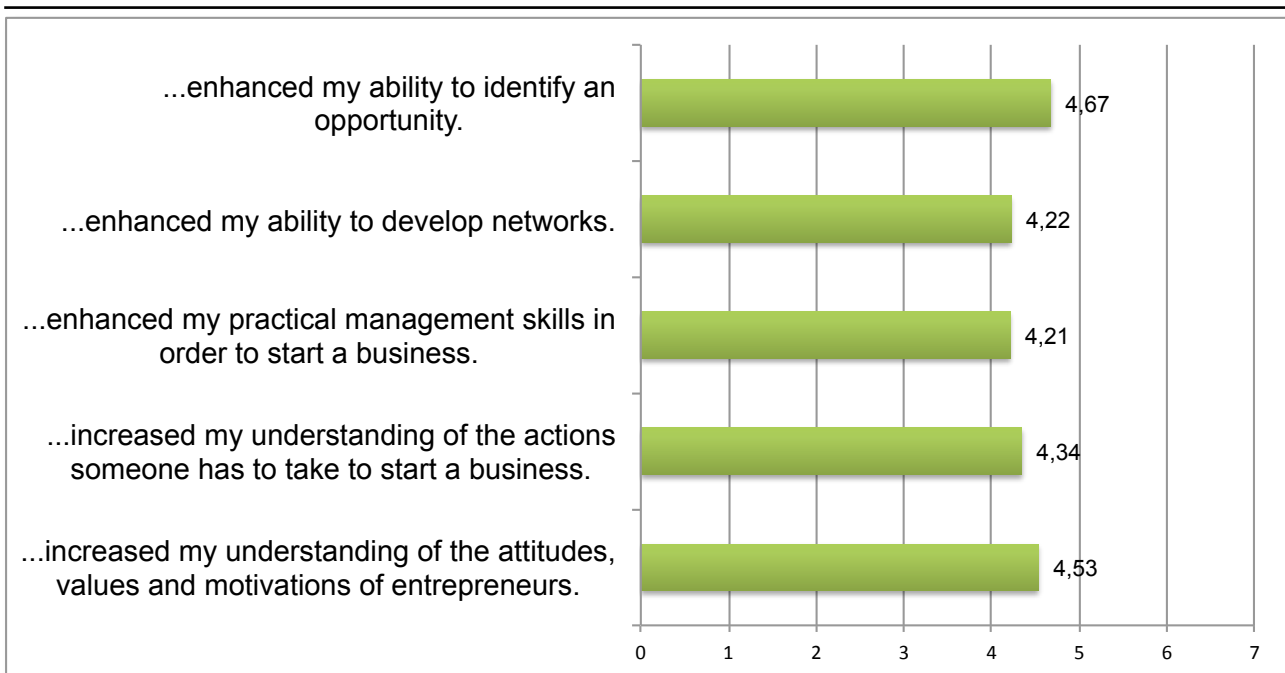


Figure 14: Entrepreneurial learning assessment

3.5. The family and social context

Previous research showed that children of entrepreneurial parents are more likely to become entrepreneurs themselves and that the intergenerational transmission of entrepreneurial intentions within families is complex and involves more than one generation (Laspita et al. 2012). In order to explore students' entrepreneurial family background they were asked if their father, their mother, or both of them are currently self-employed. The results are presented in the figure below.

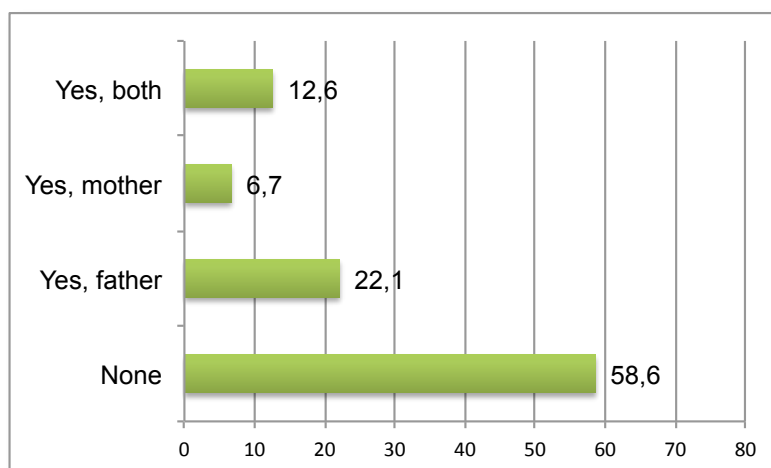


Figure 15: Existence of self-employed parents

Almost 59% of the students report that none of them is self-employed and 12,6% of the respondents indicate that both of their parents are self-employed.

We split our sample into students with and without entrepreneurial parents and examined their career choice intentions five years after graduation. The results can be found in figure 16.

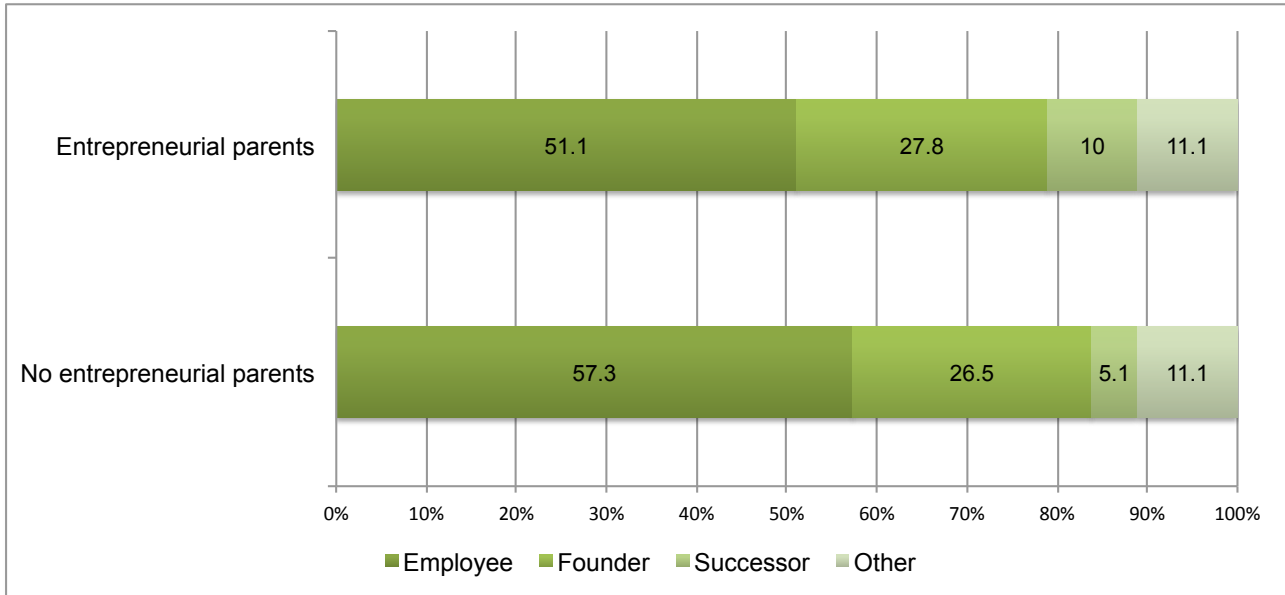


Figure 16: Career choice intentions by family background 5 years after studies

Students with and without entrepreneurial parents in the Greek sample do not differ to a great extent in their future career choices. We see some differences in the percentage of people that would like to become a successor but this can be explained by the fact that students without entrepreneurial parents do not have the option to take over their parents' firm one day.

According to Ajzen's (1991) theory of planned behaviour, an individual's intention is shaped by three attitudinal antecedents: attitudes toward behaviour, subjective norms, and perceived behavioural control. Specifically subjective norm captures the reaction that individuals expect from close peers if a certain behaviour is executed. The more positive the expected reaction, the more likely it is for actual intentions to perform the behaviour to be formed.

Therefore participants were asked how different people in their environment would react if they decided to become entrepreneurs. Responses ranged from 1 = "very negative" to 7 = "very positive". (Linan & Chen, 2009). Results suggest that the majority of participants believe that their social environment would react rather positively to the decision to become entrepreneurs. Interestingly the least positive reaction came from fellow students.

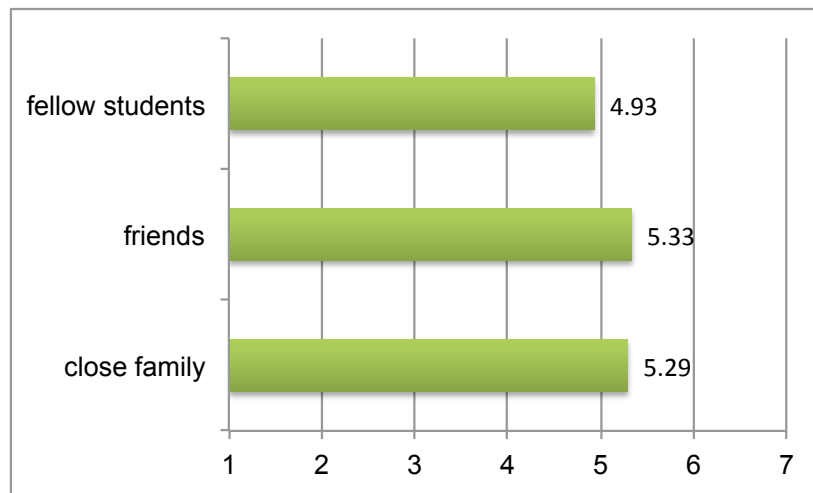


Figure 17: Subjective norms

3.6. Risk assessment

Entrepreneurs are thought to engage in risky behaviour and to make decisions with uncertain outcomes. Risk perception, which is an assessment of risk, has been associated with the pursuit of entrepreneurial activities (Norton & Moore, 2006). To assess the risk perception of students, they were asked to indicate on a scale from 1 (strongly disagree) to 7 (strongly agree) to what extent they agreed or disagreed with the statements indicated in Table 6.

Table 6: Risk assessment

Risk assessment	
1	I consider starting up my own business to be very risky. 4.74
2	I think it is dangerous to manage your own business. 4.36
3	I believe that business ownership has high risk. 5.13

Greek students show a rather moderate risk perception towards entrepreneurship, which is rather surprising since they come from a country with a high level of uncertainty avoidance. When building an index from the items above the result for Greece is 4.7, which is below the international average (4.85). The strongest risk perceptions can be found in Poland, followed by Japan, USA, Denmark, and Germany.

3.7. Nascent entrepreneurs

3.7.1. General information

A lot of research in entrepreneurship has been concentrated on existing entrepreneurs with the associated problems of hindsight bias and memory decay resulting from retrospective studies (Davidsson & Honig, 2003). Therefore it is of great importance to look at nascent entrepreneurs i.e. people that are actively involved in setting up a business they will own or co-own. To identify them, all students were asked: “Are you currently trying to start your own business / to become self-employed?” In the Greek sample 91 students answered with “yes” (20.9%) and can thus be classified as so-called “nascent entrepreneurs”. This percentage is above the international average, which is 15.1%.

The nascent entrepreneurs in our sample have a mean age of 26.1, are single (67%) and male (53.9%) in their majority. Most of them are undergraduate students (78.7%) and study information science (26.7%) or business/management (21.1%). They intend to found their firm in 13.1 months and plan to invest almost 60% of their average weekly working time in their future company. This shows that the new firms will most likely not be a full- time job. When asked about the share of the private money they would invest in their business, 15.8% answer 100% and 12.3% answer 50%.

3.7.2. Foundation partners

Only 17,6% of the nascent entrepreneurs intend to found their company alone. The above table gives a better overview of the number of the partners. The majority of the students would like to found their company with one or two co-founders.

Table 7: Number of co-founders for nascent entrepreneurs

With how many co-founders do you plan to found your firm?	Percent
No Co-founders	17.6
1 Co- founder	29.4
2 Co- founders	28.2
3 Co- founders	15.3
> 3 Co- founders	9.4

The distinction between male and female nascent founders exhibits some differences in the propensity to found their company in a team. Figure 18 shows that 16.2% of the nascent female entrepreneurs intend to start their business alone, compared to 19.6% of their male counterparts.

The majority of female nascent entrepreneurs are planning to found the company with one partner whereas the majority of male nascent entrepreneurs are planning to found the company with two partners.

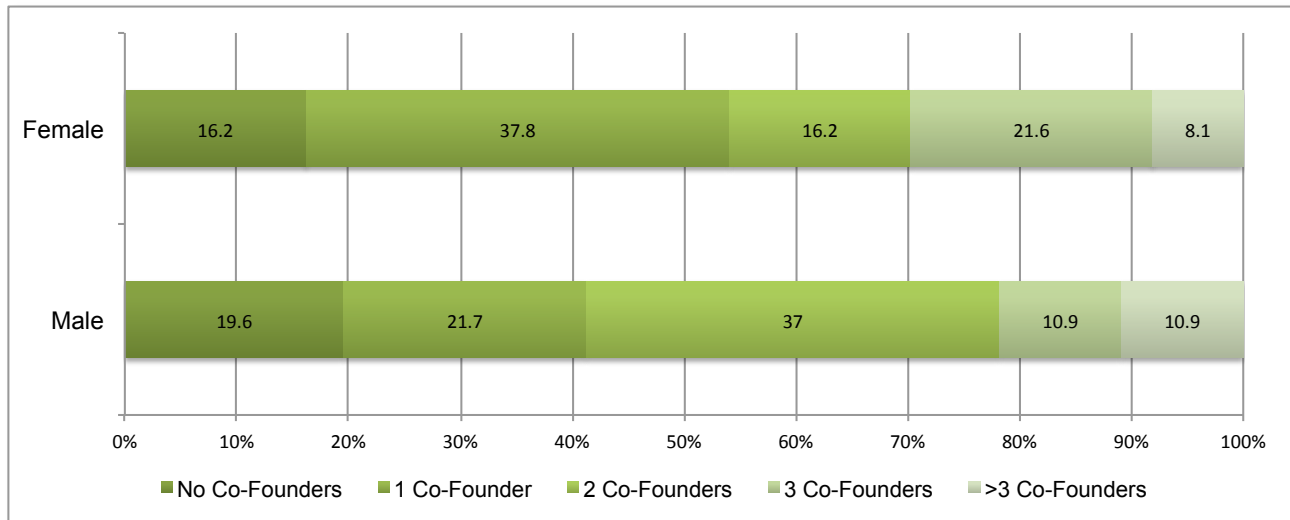


Figure 18: Number of Co-Founders of nascent entrepreneurs depending on gender

3.7.3. Preferred sector

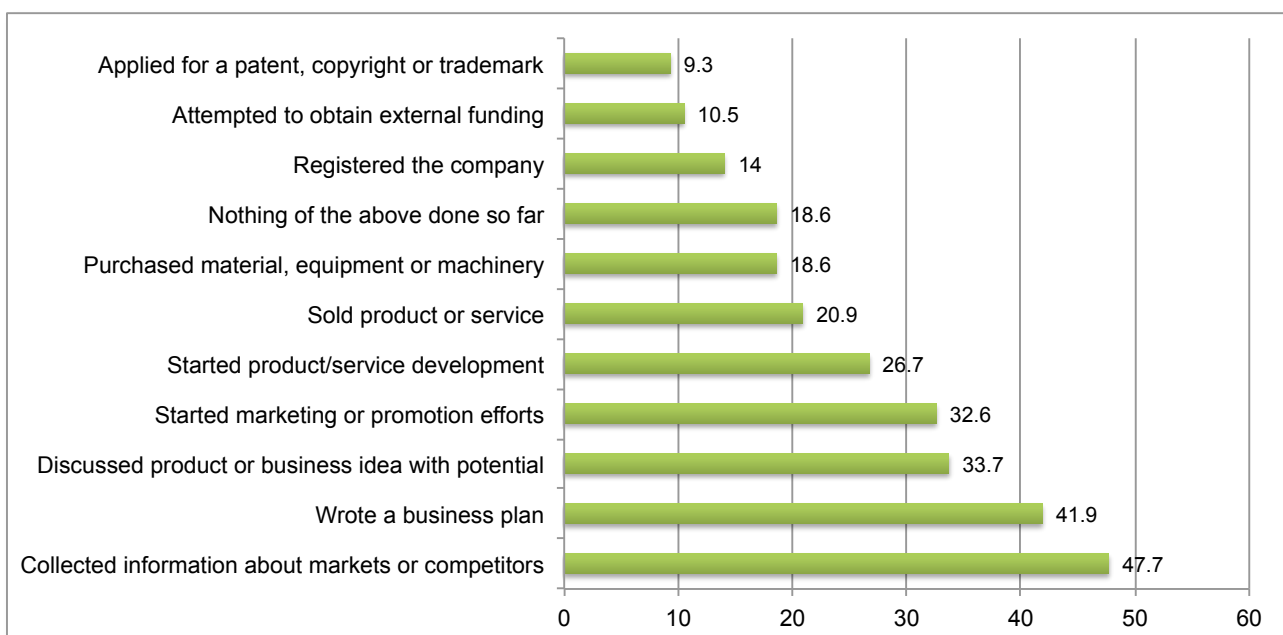
Nascent entrepreneurs were also asked about the sector in which their company would be active. The preferred industry sectors of the nascent founders among students for their start-up are information and communication technology (15.9%), education and training (14.8%) and the advertising/marketing and design sector (13.6%). The least preferred industry sectors are construction and manufacturing and health services. More details are given in the table below.

Table 8: Preferred industry sector for nascent entrepreneurs

Industry sector	Percent
Information technology and communication	15,9
Trade (wholesale/retail)	6,8
Consulting (law, tax, management, HR)	17
Advertising / Marketing / Design	13,6
Education and training	14,8
Tourism and gastronomy	10,2
Health services	2,3
Other services (including finance, insurance, etc.)	3,4
Architecture and engineering	3,4
Construction and manufacturing	2,3

3.7.4. Gestation activities

In order to gain more detailed information about how far the nascent entrepreneurs have already proceeded in the founding process, they were asked which activities they have already completed (multiple answers possible). The majority of nascent entrepreneurs have collected information about markets or competitors (47.7%), wrote a business plan (41.9%) and discussed their business idea with potential customers (33.7%). Details are given in the figure below.

**Figure 19: Activities already conducted by nascent entrepreneurs**

3.7.5. Innovation degree of the product/service of nascent entrepreneurs

Nascent entrepreneurs were asked how new the service or product that the company will offer in the market is compared to what is already offered in the market. The majority of the respondents in the Greek sample indicated that they intended to bring a product to market that would be new to the majority of the customers. 13.1% stated that their product or service is no new at all. A comparison with the international sample is seen below.

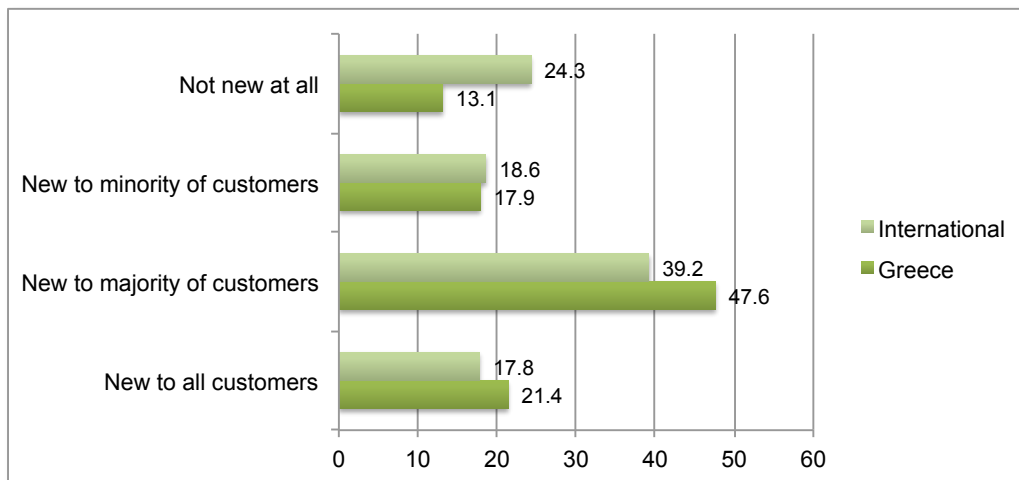


Figure 20: Degree of newness of the planned firms' offerings

In order to see whether male and female nascent entrepreneurs differ in the innovation degree of their offerings we split the sample and report differences in the next figure. Male nascent entrepreneurs regard that their products or services to have a higher degree of newness as compared to their female counterparts, as for example, 25% of male students argue that they will bring a completely new product to the market. The corresponding percentage for the female sample is 15.8%. Around 13% of male and female students argue that their product will not be new.

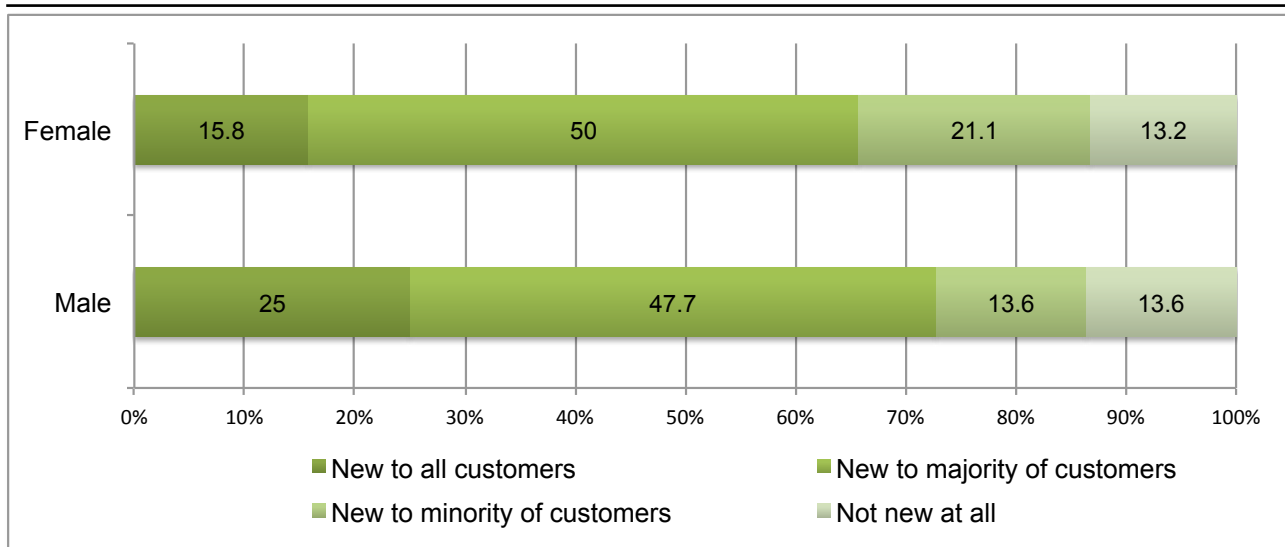


Figure 21: Degree of newness of the planned firms' offerings depending on gender

3.7.6. Equity share

When asked how much equity they expected to have in their new business, on average, nascent entrepreneurs stated that the equity share would be 62.7%, with the median being 60%. This clearly points out to majority ownership. Having a closer look reveals that 27% will own 49% or less of the firm's equity. Half of the nascent entrepreneurs will own between 50% and 99%, and 20% of nascent entrepreneurs will own all the firm's equity. A comparison with the international sample is also provided.

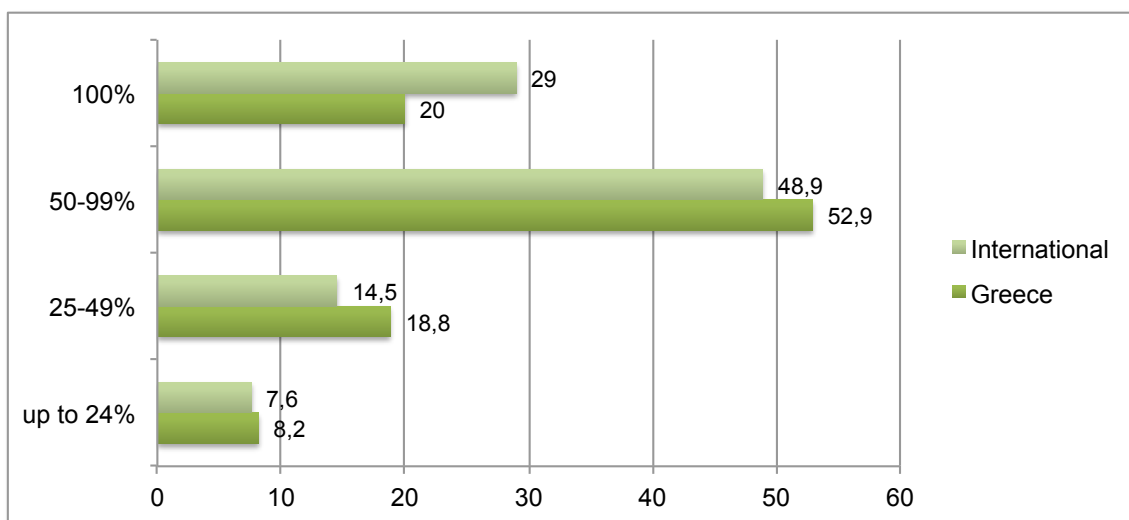


Figure 22: Nascent entrepreneurs' equity share in the planned firm

3.8. Active entrepreneurs

3.8.1. General information

Besides the entrepreneurial intentions of students, GUESSS also observes the entrepreneurial activities of students and quality and the performance of start-ups created by students. Therefore, students who are already running their own business were identified. In Greece 10,3% (45 students) stated that they are active entrepreneurs which is above the international average of 5,5%.

The active entrepreneurs in our sample have a mean age of 30.3, which is higher than the mean age of nascent entrepreneurs and are single (63.6%) in their majority. The distribution of active entrepreneurs between the genders is equal (one missing answer). The majority is undergraduate students (55.8%), followed by graduate students (18.6%) studying business/management (22.7%), followed by law (18.2%) and information science (15.9%). They work on average 48.2 (median 49) hours per week, which shows that the firm is a part-time occupation. Start ups are regarded to be job creators, which is very important especially in periods of economic crisis. The mean number of employees of active entrepreneurs in our sample is 7.7 (the median is 2.5). 36.7% of the entrepreneurs do not have any employees. When asked how many employees they plan to have in the next five years 6.3% do not plan to hire anyone. The mean number of future employees is 10.9 and the median 5.5.

3.8.2. Number of co-founders of active entrepreneurs

40% of the active entrepreneurs founded their company on their own. The above table gives an overview of the number of the partners.

Table 9: Number of co-founders for active entrepreneurs

With how many co-founders have you founded the company?	Percent
No Co-founders	40.0
1 Co- founder	17.1
2 Co- founders	22.9
3 Co- founders	17.1
> 3 Co- founders	2.9

The distinction between male and female active founders exhibits some differences as far as the number of co-founders is concerned. Figure 23 shows that 31.3% of the active female entrepreneurs founded their business alone, compared to 47.4% of their male counterparts. The majority of female

active entrepreneurs have founded their company with one or more partners but none of them founded the company with more than three people.

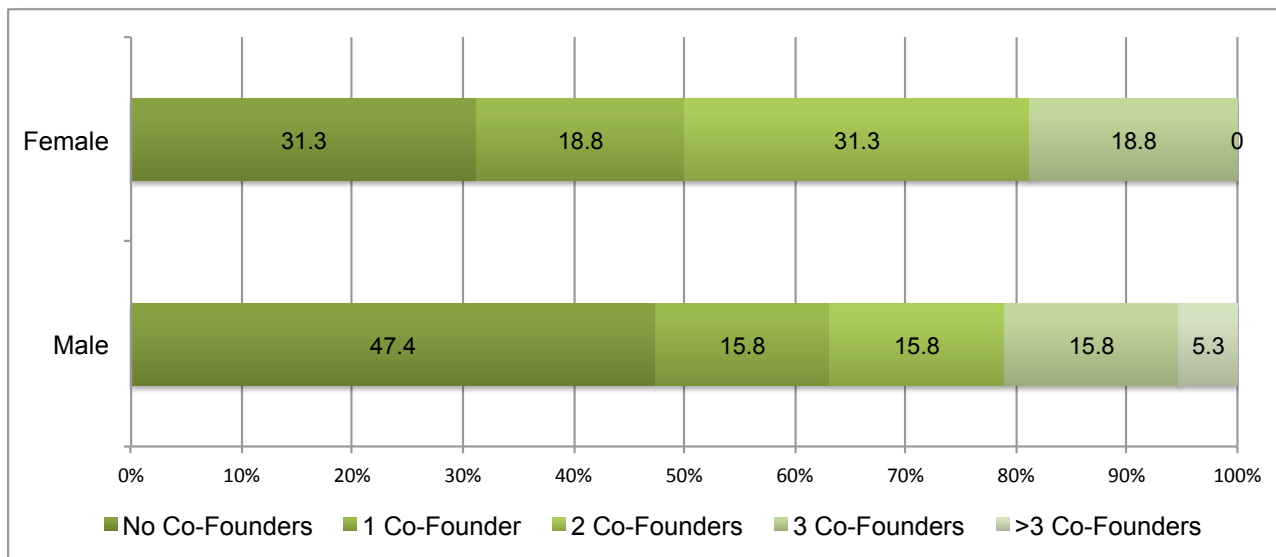


Figure 23: Number of Co-Founders of active entrepreneurs depending on gender

3.8.3. Preferred industry sector

Entrepreneurs were also asked about the industry sector in which their company is mainly active. Consulting comes first (21.6%), followed by information technology and communication (16.2%) The least preferred industry sector is health services. More details are given in the table below.

Table 10: Preferred industry sector for active entrepreneurs

Sector	Percent
Information technology and communication	16,2
Trade (wholesale/retail)	10,8
Consulting (law, tax, management, HR)	21,6
Advertising / Marketing / Design	8,1
Education and training	10,8
Tourism and gastronomy	8,1
Health services	2,7
Other services (including finance, insurance, etc.)	8,1
Architecture and engineering	10,8
Other	2,7

3.8.4. Performance ratings

Active founders were asked to rate the company's performance compared to their competitors since its establishment with a measurement scale from 1=much worse to 7= much better. The highest level of agreement can be found for the performance measure "innovativeness" and the lowest level of agreement can be found for "profit growth".

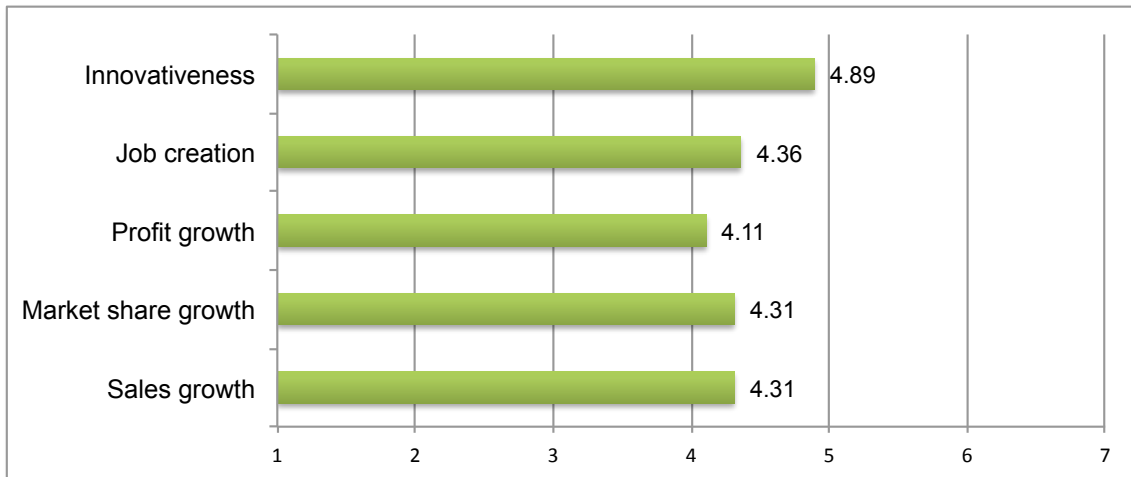


Figure 24: Performance ratings compared to competitors

3.8.5. Foundation year

In order to see whether the economic crisis has affected actual entrepreneurial activities students were asked about the year in which they founded their business. As the following figure shows, most of the firms in our sample have been created in 2013 and most of the firms were created after the outbreak of the economic crisis. This confirms results from other studies that show that the Greek population reacted against the economic crisis by engaging in entrepreneurial activities.

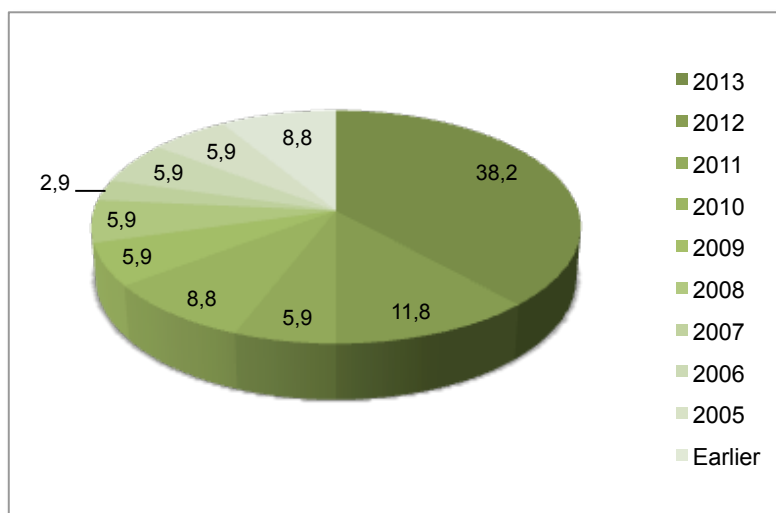


Figure 25: Foundation year

3.8.6. Equity share

When asked how much equity they have in their business, on average, entrepreneurs stated that the mean equity share is 68.9%, with the median being 70.5%. This clearly points to majority ownership. Having a closer look reveals that 20.6% own 49% or less of the firm's equity. 38.2% own between 50% and 99%, and 41.2% of the entrepreneurs own all the firm's equity. A comparison with the international sample is given in the figure below.

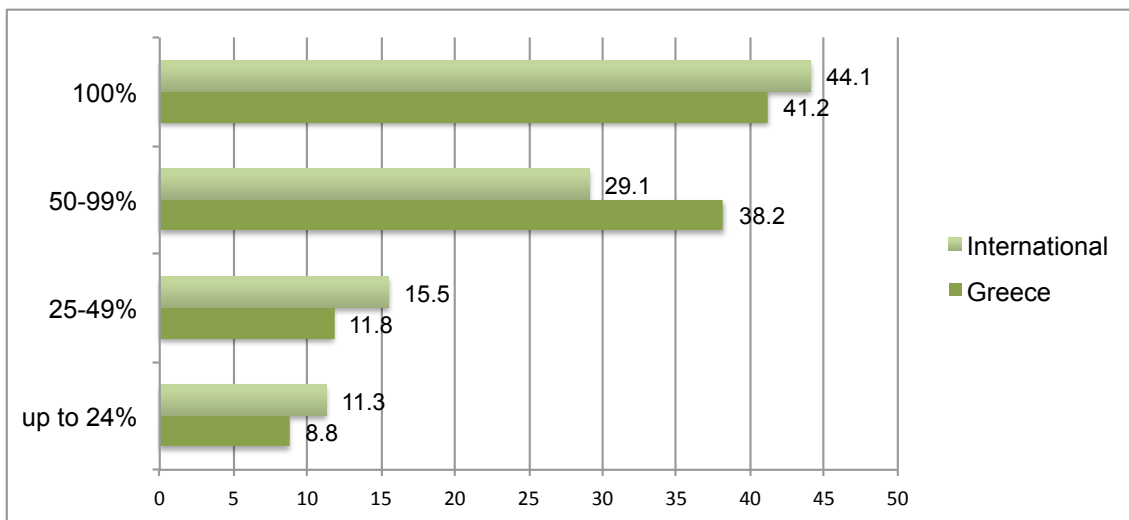


Figure 26: Active entrepreneurs' equity share in their firm

3.9. Comparisons between nascent and active entrepreneurs

3.9.1. Parental support

Nascent entrepreneurs were asked the extent to which their parents support them in the founding process in various ways such as knowledge and contacts (responses ranged from 1 "not supported at all" to 7 "very much supported"). A similar question was asked to active entrepreneurs (To what extent did your parents support you in the founding process with the following types of support?). Responses about materials and help in the idea generation and evaluation were the lowest for nascent entrepreneurs. Nascent entrepreneurs get mostly support as far as knowledge and advice is concerned. The picture changes when we look at active entrepreneurs. They get mostly financial support. Support in idea generation and evaluation is low also for active entrepreneurs. Detailed information is given in the figure 27.

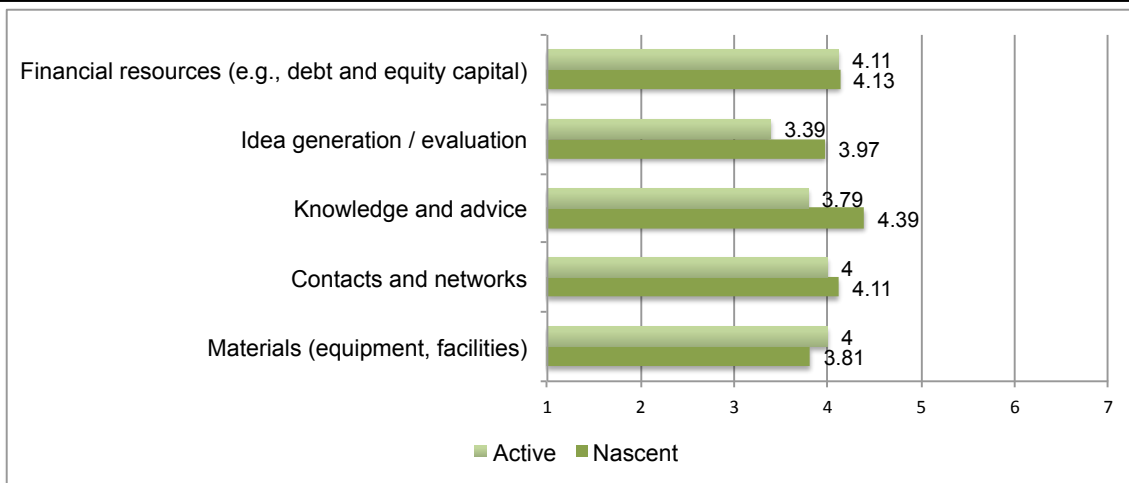


Figure 27: Parental support for nascent and active entrepreneurs

3.9.2. Motivation and goals

Nascent and active entrepreneurs were specifically asked about their motivation towards creating their company (responses ranging from 1= strongly disagree to 7= strongly agree). For nascent entrepreneurs personal motives like “to advance my career in the business world”, “to make money and become rich” seem to be very important but also motives that are associated with the entrepreneurs close environment like “to play a proactive role in shaping the activities of a group of people that I strongly identify with” and “to solve a specific problem for a group of people that I strongly identify with”. Motives that have to do with the society as a whole seem to be less important. For active entrepreneurs the personal motives “to advance my career in the business world” and “to make money and become rich” seem to be the most important.

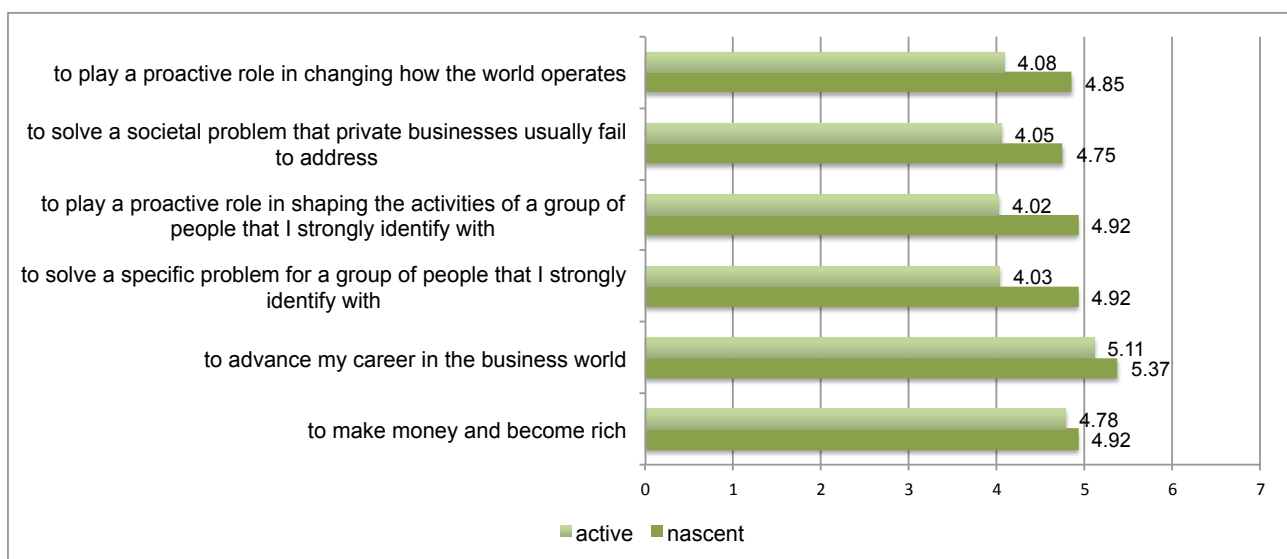


Figure 28: Motivation of nascent and active entrepreneurs

In order to assess how important active and nascent founders perceive different activities, abilities and attitudes in relation to their start-up and the world in general they were asked to express their level of agreement or disagreement to various statements (The question was: As a firm founder, it is very important to me...). The results can be found in the figure below.



Figure 29: Abilities and attitudes of nascent and active entrepreneurs

For both active and nascent entrepreneurs it is most important to be able to express to their customers that they fundamentally share their views, interests and values. For active entrepreneurs it is apparently less important to thoroughly analyse the financial prospects of their business, which is quite surprising, especially in terms of the economic crisis. For nascent entrepreneurs it is less important to operate their firm on the basis of solid management practices.

4. Summary of the findings

The main findings of this report can be summarised in the following:

- Directly after their studies almost 77% of the students intend to work as employees, while five years after graduation almost 55% choose this career path.
- Directly after the studies 7.1% intend to be self-employed, while five years after graduation 27% choose entrepreneurship as a career choice.
- The public sector is no longer a highly preferable career choice in both timespans probably because of the reforms that occurred during the years of the economic crisis.
- In the Greek sample 91 students can be classified as nascent entrepreneurs (20.9%). This percentage is above the international average which is 15,1%.
- In the Greek sample there 45 active entrepreneurs (10.3%) which is above the international average (5.5%)
- The entrepreneurial intention for male respondents is significant higher than that for female respondents.
- To “realize your dream” is the strongest motive for the Greek sample followed by “create something”. The least important motives are “have authority” and “be your own boss”.
- Results reveal that Greek universities still have a lot of work to do in order to be regarded as entrepreneurial as students assess the entrepreneurial climate in their universities quite neutrally.
- Students with and without entrepreneurial parents in the Greek sample do not differ to a great extent in their future career choices.
- Greek students show a rather moderate risk perception towards entrepreneurship.
- The majority of nascent entrepreneurs would like to found their company in a team.
- The majority of nascent entrepreneurs have collected information about markets or competitors, wrote a business plan and discussed their business idea with potential customers.
- 40% of the active entrepreneurs founded their company on their own.
- Most of the firms of the active entrepreneurs were created after the outbreak of the economic crisis.

-
- Nascent entrepreneurs get mostly support from their parents as far as knowledge and advice is concerned. Active entrepreneurs get mostly financial support from their parents.

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Appendix

No.	Country	University	Representatives
1	Argentina (ARG)	IAE Business School	Prof. Silvia Carbonell Aranzazu Echezarreta
2	Australia (AUS)	Curtin University of Technology	Prof. Paull Weber Louis Geneste
3	Austria (AUT)	Johannes Kepler University Linz	Prof. Dr. Norbert Kailer Birgit Wimmer-Wurm
4	Belgium (BEL)	Vlerick Leuven Gent Management School	Prof. Dr. Hans Crijns Karen de Visch
5	Brazil (BRA)	UNINOVE - Universidade Nove de Julho	Prof. Edmilson Lima
6	Canada (CAN)	Concordia University, Montreal	Prof. Alexandra Dawson
7	Colombia (COL)	Universidad de Medellin	Prof. Claudia Alvarez
8	Denmark (DEN)	University of Southern Denmark	Prof. Britta Boyd Prof. Kristian Philipsen
9	England (ENG)	Kingston University, Kingston	Prof. Robert Blackburn Arif Attar
10	Estonia (EST)	Tallinn University of Technology	Prof. Urve Venesaar
11	Finland (FIN)	Lappeenranta University of Technology	Prof. Asko Miettinen Sampo Kokkonen
12	France (FRA)	EM Lyon Business School	Prof. Dr. Alain Fayolle Emeran Nziali
13	Germany (GER)	University of St. Gallen	Dr. Heiko Bergmann
14	Greece (GRE)	University of Western Macedonia	Prof. Katerina Sarri
15	Hungary (HUN)	Budapest Business School	Dr. Szilveszter Farkas
16	Israel (ISR)	Jerusalem College of Technology	Prof. Brian Polin
17	Italy (ITA)	University of Bergamo	Prof. Tommaso Minola Giovanna Campopiano
18	Japan (JAP)	Senshu University	Prof. Tomoyo Kazumi
19	Liechtenstein (LIE)	University of Liechtenstein	Prof. Dr. Urs Baldegger Simon Zäch
20	Luxembourg (LUX)	Institut Universitaire International Luxembourg	Prof. Pol Wagner Frédéric Ternes
21	Malaysia (MAL)	Universiti Malaysia Kelantan	Prof. Raja Suzana Kasim
22	Mexiko (MEX)	EGADE Business School, Tecnológico de Monterrey	Prof. Juan Arriaga
23	Netherlands (NED)	Erasmus University, Rotterdam	Prof. Roy Thurik Dr. Ingrid Verheul Sofia Karali

No.	Country	University	Representatives
24	Nigeria (NIG)	Adekunle Ajasin University	Prof. Tomola Obamuyi
25	Poland (POL)	Poznan School of Banking	Prof. Adrianna Lewandowska Lukasz Tylczynski
26	Portugal (POR)	Technical University of Lisbon Instituto Superior Tecnico	Prof. Joao Leitao Prof. Rui Miguel Amaral
27	Romania (ROM)	University of Bucharest	Dr. Lilian Ciachir
28	Russia (RUS)	St.Petersburg State University Graduate School of Management	Prof. Galina Shirokova Tatyana Tsukanova
29	Scotland (SCO)	University of Strathclyde, Glasgow	Dr. Erik Monsen
30	Singapore (SIN)	National University of Singapore	Prof. Poh Kam Wong Low Pei Chin
31	Slovenia (SLO)	GEA College of Entrepreneurship	Prof. Jaka Vadnjal Predrag Ljubotina
32	Spain (ESP)	ESADE	Prof. Joan Batista Prof. Ricard Serlavos Maika Valencia
33	Switzerland (SUI)	University of St.Gallen HEG Fribourg	Dr. Philipp Sieger Prof. Rico Baldegger
34	USA	Kennesaw State University (KSU) University of Vermont (UVM)	Prof. Torsten Pieper Prof. Pramodita Sharma

