



Global University Entrepreneurial Spirit Students' Survey

# Global University Entrepreneurial Spirit Students' Survey: Report for Italy 2013

Entrepreneurial Intentions and Behavior of  
Students attending Italian Universities



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The full international report of the 2013/2014 GUESSS Survey is available at: <http://www.guesssurvey.org/>

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## EXECUTIVE SUMMARY

This research is based on information gathered through the GUESSS – Global University Entrepreneurial Spirit Student’s Survey- project led by St. Gallen University (Switzerland). Since 2003, this project aims to collect and analyze information related to entrepreneurship in university students in different countries. In 2013, the 6<sup>th</sup> version of the project, 34 countries participated, including Italy for the first time. Overall, in 2013 109, 024 students were involved in the survey worldwide.

The Italian survey includes to 7,765 respondents. The sample was gathered through a non-random process, in which only 9 universities participated with more than 100 respondents. Though the sample is not representative of the Italian student population, it provides an analysis of the entrepreneurial experiences, attitudes and intentions of students attending Italian universities.

In order to find out the underlying causes of entrepreneurial intentions among students the survey builds on the Theory of Planned Behavior (Ajzen, 2002). The questionnaire is aimed to investigate how personal and family background as well as university affect the antecedents of entrepreneurial intent. A particular attention is devoted to family succession as potential entry mode into entrepreneurship.

The data of GUESSS survey is valuable because it not only provided interesting insights about what drives entrepreneurship among young students, but also because it allows the comparison of entrepreneurial attitudes among Italian students to that of students in other countries. Moreover a greater understanding of the factors that raise and hinder entrepreneurial intentions among Italian students contributes to the design of appropriate measure aimed to create a more entrepreneurial culture. Finally the data made available from the GUESSS project will allow scholars to tackle the research questions on determinants of entrepreneurship that still remain without a well-defined response.

The contents of the present report are briefly summarized below

### Sample profile

- Most of the respondents were in the under 25 category (78%), a similar proportion to the international sample (75%). There were more respondents in the over 30 category in the international sample (7%) compared with the Italian sample (3%).
- In the Italian sample more males (53%) than females completed the survey, while in the international sample females (58%) were more represented than males.
- The largest proportion of respondents in the Italian sample identified Italy as their nationality (94%).
- A majority of respondents in both the English and international samples were studying for their first degree (IT=59%; INT=76%), but master students were more represented in the Italian sample (IT=39%; INT=20%).
- In an international comparison the fraction of Italian respondents studying Natural Sciences was particularly large (IT=51%; INT=35%). On the other hand the international sample had more students enrolled in the Business and Economics study area (IT=23%; INT=31%).

### University context

- Compared to international students, the general university entrepreneurial climate was assessed as non-satisfactory in quality by Italian respondents. Three fourths of the Italian sample have never attended a course dedicated to entrepreneurship. From the survey it emerges also the perception that university offerings did not enhance practical management skills and network building ability. The university context was assessed as more favorable to entrepreneurship from Business and Economics students, whereas students of Social Sciences were the most disappointed.

### Career choice intentions

- 35% of Italian students expected to have founded a business 5 years after finishing their studies, but only 5% plan to become a founder right after finishing their studies. The effect of a higher long-term entrepreneurial intention could be due to the recognition that work experience can be useful for the success of a start-up and for developing the required competences that still lack right after studies. This need was perceived as more urgent in the Italian sample, since the increase of founding intentions in the long term was of lower intensity in the international sample (passing from 7% to 31%).
- Natural science students showed lower long term interest (40%) than Business and Economics (34%) and Social Science (25%) students in pursuing an entrepreneurial career path. However, the intention to become entrepreneur right after studies was equal for study areas (5%), suggesting the an entrepreneurial career could be a valuable career option for students of all fields of study.
- Males were more likely to aspire to found a business right after studies (7%) or 5 years after graduation (43%) compared to female students (3% and 25% respectively).

### Antecedents of founding intentions

- In an international comparison Italian students reported an higher appreciation of the attractiveness of being a founder and the willingness to run the relative risks. They also perceived that their family and friends would react strongly and favorably to their decision of becoming an entrepreneur. Nevertheless entrepreneurial intentions were impaired by the feeling the starting a business is risky and by the perception of not having the competences and control required to deal successfully with start-up foundation.

### Nascent entrepreneurs

- This is reflected in the lower fraction of nascent entrepreneurs in the Italian GUESSS sample. Only 6% of the Italian sample was seriously thinking to start a business for the first time when

participating to the survey (12% in the international sample), whereas 2% planned to found a new company, though already being self-employed (3% in the international sample).

- Even if the fraction of nascent entrepreneurs was lower in the Italian sample, their motivation and commitment to starting a business was larger compared to the international sample. Italian intentional founders not only they reported stronger founding intentions, but also were highly driven by a societal mission.
- A fraction of nascent entrepreneurs was present in all study areas (9% in Business and Economics and Natural Sciences; 5% in Social Sciences), despite huge difference of entrepreneurial offerings among various fields of study.
- The university context may have fostered founding intentions. Intentional founders showed a particular interest in entrepreneurial courses and reported an increase of entrepreneurial skills due to education. Moreover they perceived a favorable climate toward entrepreneurship in university.
- The rate of innovative to-be-founded companies was higher in the Italian sample, where 74% of nascent entrepreneurs planned to start a business that is new to all or most customers. In the international sample this figure decreased to 57%.
- The main focus of nascent entrepreneurs in the Italian sample were the IT sector (22%) followed by wholesale and retail trade (15%) and architecture/engineering (13%). The interest for the IT and architecture/engineering sectors was weaker for international founders who planned to found in the IT sector and in the architecture/engineering sector only 13% and 6% of times respectively.
- On average Italian students planned to have more business partners than their international colleagues. Only 18% of Italian students intended to start a company as solo founder (45% with two or more partners), whereas in the international sample this figure increased to 27% (38% with two or more partners). In the Italian sample the most important motive behind the choice of business partners of future companies was sharing risk and developing the idea with someone else, whereas getting access to financial and physical resources of co-founders were the less relevant factors.
- In the Italian context personal background played a more important role as a mean to find co-founders compared to the international sample. The most common source of business partners in the Italian sample was the circle of friends outside university and university. Nascent entrepreneurs of international sample reported more frequently to have partners with the same study background and were less likely to find partner among relatives and professional network.
- In an international comparison families provided lower support to Italian nascent entrepreneurs. However the presence of an entrepreneurial family background significantly contributed to the help to business foundation. Family support was stronger for younger students especially in

terms of know-how. For older intentional founders the provision of financial resources was the most relevant kind of support received.

- In comparison with international nascent entrepreneurs Italian students have taken more frequently some of the early steps to start a business: only 11% have done nothing so far (INT=18%); 68% have collected information about market and competitors (INT=62%); 39% have written a business plan (INT=32%); 36% have started product development (INT=30%). However international students were more likely to be in the final stages of business foundation. 18% have already sold the product (IT=11%) and 14% have registered the company (IT=8%). On the other hand searching sources of financing was more often a concern for Italian founders (IT=26%; INT=17%).

#### Active entrepreneurs

- In the Italian GUESSS sample 4% (n=272) of the respondents have already founded a business (5% in the international sample). More than an half of the founded companies was of recent foundation having less than 2 years. About three fourth of active founders had no or only one employee.
- As for nascent entrepreneurs the main focus of active founders was the IT sector (17%) followed by wholesale and retail trade (16%) and architecture/engineering (10%). Also international students rather founded in wholesale and retail trade (19%) and IT sectors (14%), but only 4% founded in architecture/engineering industry.
- In line with the international sample about an half of active entrepreneurs were solo founders and about one fourth had only a co-founder. As for nascent entrepreneurs the main reason behind the choice of business partners for Italian active founders is the need of sharing risk and developing the business with someone else, while getting access to physical and financial resources were minor factors.
- There are several factors suggesting that in the Italian sample the entrepreneurial experience of active founders was mainly related to the family and personal background rather than on the university context
  - The rate of active entrepreneurs was quite similar across study fields (4% in Business and Economics and Natural Sciences; 3% in Social Sciences), despite huge difference of entrepreneurial offerings among various fields of study
  - The participation to entrepreneurial courses by active entrepreneurs was significantly lower compared to nascent entrepreneurs. Also the general university climate toward entrepreneurship was perceived as not particularly favorable.
  - Compared to international active founders in the Italian sample the personal and family background was by far more important as source of co-founders. For Italian active founders the most common source of business partners was family (IT= 65%;

INT=52%), followed by circle of friends outside university (IT=54%; INT=43%) and professional network (IT=52%; INT=34%). Only 40% of non-solo founders in the Italian sample had a partner with the same study background (INT=59% )

- In the Italian sample family support for business foundation played a more important role for active than for nascent entrepreneurs, especially if there was an entrepreneur among parents. Moreover students receiving greater support by their family support on average were able to employ more people
- About a third of the business founded by students whose parents had a family firm were internal new ventures, whereas the businesses to be founded by nascent entrepreneurs were more likely to be independent from parents' company.
- There are some findings that call for an increased involvement of education into entrepreneurial activities of Italian active founders in order to increase entrepreneurial success and motivations
  - Active founders of the Italian sample reported scarce effect of university offerings on their entrepreneurial competences
  - In comparison with international students, Italian founders were more dissatisfied with the performance of founded companies
  - In comparison with Italian nascent entrepreneurs and with active international founders, active entrepreneurs of the Italian sample were poorly motivated as business founders

#### Intentional family successors

- The Italian sample was more likely to have parents in business (36%) than the international sample as a whole (33%). Family succession was more attractive to Italian potential successors than in the international sample. 10% of the Italian sample potential successors aimed to take over parents firm soon or later (INT=7%).
- The attractiveness of family succession intentions for Italian students was reflected in more positive feeling about family business compared to the international sample.
- In the Italian sample 2% of potential successors planned to perform the takeover right after studies and maintain the leadership of parents' company also five years after graduation (INT=1%); 4% intended to succeed family only as short term career option (INT=2%); finally 5% had the intention to manage parents' business only in the long term, but to do something different right after studies (INT=4%). It is possible they that did not feel ready to take over parents' firm and wanted to develop some working experience before. 88% of them intended to work as employee, but 7% aimed to be self-employed.
- Working in parents' family firm right after studies was seen as an opportunity for developing entrepreneurial experience before founding an own business. In the Italian sample 62% of the students that aimed to take over the family business right after studies planned to found a company 5 years after studies.

- On average in the Italian sample parents' companies have been owned by the family for more years (23 years) than in the international sample (16 years). The length of family ownership may drive the succession intention of Italian students. Other family business characteristics that seem to positively affect succession intention in the Italian sample were
  - The founder of the parents' company was a family member
  - The size of parents' company in terms of number of employees
  - The family business operate in construction/manufacturing or engineering/architecture sectors
  - The firm's performance of the family business
  - Working experience of potential successors in parents' company

#### Implications for Italian entrepreneurial education

- The overall picture that emerged from the report is that personal and family background of Italian students form a good basis upon which build up an entrepreneurial culture among young people. Still university could better exploit these opportunities in order to spur entrepreneurial intent.
- Students potentially interested in founding a business came from all fields of study. Hence university should encourage entrepreneurial activities in all study areas by offering courses aimed to increase the awareness of students about the opportunities provided by a career as business founder.
- The positive attitudes of Italian students toward entrepreneurship would be more likely to be reflected into entrepreneurial engagement if the university increased aspiring entrepreneurs' self-efficacy by teaching the specific skills required to start and manage a business.
- Active founders didn't take advantage from the university context. Hence educational institutions should address the needs of active entrepreneurs by providing specific training for existing founders.
- The family background is valuable resource that Italian university could exploit in order to enhance entrepreneurial intentions and success. Managing the family business may contribute to development of specific competences required to start and manage an own company. Dedicating more time to family succession in entrepreneurial and management courses could ease the takeover process of intentional successors. Family succession would contribute to development of entrepreneurial human capital.

The details of this study can be found within this report, which we hope will add to current studies of entrepreneurship, as well as help in advancing entrepreneurship in Italy.

We wish to thank all participating students and universities for their valuable contribution to this project and look forward to collaboration in the next version of the GUESSS Italy report.

## 1. INTRODUCTION

Entrepreneurship is “at the heart of national advantage” (Porter, 1990, 125). Given its contribution to economic growth and innovation it is important to understand the determinants of the individual’s decision to become an entrepreneur (Parker, 2009; Van Praag and Versloot, 2007). The decision to become entrepreneur arises from a complex interaction between the individual and the context (Autio and Acs, 2010). “Entrepreneurial activity does not exist in a vacuum” (Lerner, 2010, p261). It depends both from the munificence of opportunities and the ability to recognize and exploit them by the individual. University plays a central role in creating an entrepreneurial context (Bae et al., 2014). The European Commission, for example, underlines that the “important role of education in promoting more entrepreneurial attitudes and behaviors,..., is *widely recognized*” (European Commission, 2008: 10). In particular education has the power to influence both the availability of skills and the preferences of individuals (Grilo and Thurik, 2008). By communicating the value of being self-employed universities can help young people to face the new challenges they are confronted with. Students and graduates who grew up in an era of growth and easy certainties of either corporate or public investment experience high unemployment levels among both graduates and young people in general (Rae, 2010). However, the effectiveness of entrepreneurial education in encouraging engagement in entrepreneurial activities remains controversial (von Graevenitz et al., 2010). This calls for a better understanding of entrepreneurship drivers in order to enhance entrepreneurial activities and outcomes.

The GUESSS stands for ‘Global University Entrepreneurial Spirits Students Survey’ and is an international research project that responds to this need focusing on entrepreneurial intentions and activities of students. The survey collects data about the career attitudes of the respondents and relates them to their personal and university background. The project, which started in 2003, was originally introduced under the name ISCE (International Survey on Collegiate Entrepreneurship) and renamed in 2008. As a panel survey it has been repeated 6 times since the start. Each time the project has grown larger and more international. In 2013, GUESSS was conducted in 34 countries on a sample composed by 109,026 students from 759 universities.

The goals of the survey are:

- Systematically record and track the entrepreneurial spirit, intentions and activities of students worldwide (panel study).
- Enable participating countries to reflect on their students' entrepreneurial spirit and identify hurdles and pitfalls when pursuing an entrepreneurial career.
- Assess the effectiveness of Universities' entrepreneurship programs, with national and international comparisons.

The results of GUESSS are of relevance for different target groups:

- All participating countries gain insights into the entrepreneurial settings and spirit of their students.
- Universities can evaluate the quantity and quality of their offerings with regard to entrepreneurship and the success of their actions.



- Politics and public get sensitized about entrepreneurship; recommendations for actions can be derived from the survey.
- In the long run students profit from improved university offerings.
- The unique data set provides a basis for scientific publications, thus significant contributions to the scientific community can be made (e.g. a more detailed understanding of antecedents of career choice intentions can be gained).

On an international level the project is coordinated by the Swiss Research Institute of Small Business and Entrepreneurship at the University of St. Gallen (KMU-HSG) in Switzerland. For each participating country a representative is responsible to coordinate the survey on a national level. In Italy the survey has been coordinated by the Center of Young and Family Enterprises, University of Bergamo. It has been the first time that Italy participated in the periodically organized GUESSS project. 7,765 students from universities responded to the Italian questionnaire. This report presents the Italian results of the GUESSS survey. Findings and implications are of great relevance in the Italian context. On one hand youth employment is dramatically high in Italy (42.4% in January 2014 according to Istat); on the other hand the Global Entrepreneurship Monitor claims that Italian universities are still inadequate to promote an enterprise society, that has been perceived as a potential solution to youth unemployment (OECD 2009). Still the large diffusion of small family firms in the Italian economy provides most of students a solid entrepreneurial background universities can rely on in order to foster entrepreneurial intentions among young people. The overall picture that emerges from the GUESSS survey reveals that the positive inclinations toward entrepreneurship of Italian students could be reinforced if the universities were more able to teach entrepreneurial-specific skills.

The remainder of the report is organized as follows. Section 2 presents the theoretical foundations of the questionnaire design and the sample selection; Section 3 describes the sample main characteristics; Section 4 focuses on the university context; Sections 5 illustrate the career attitudes of respondents; Section 6 explores the beliefs of students about founding a business; Sections 7, 8, 9 and 10 are focused on intentional and active founders and on intentional family successors. Finally Section 11 concludes with a summary of findings and implications and compares the Italian results with the international GUESSS sample.

## 2. RESEARCH, DESIGN AND METHODOLOGY

### 2.1 Questionnaire Design

The origins of GUESSS go back to 2003 researchers at the Swiss Research Institute of Small Business and Entrepreneurship at the University of St Gallen and the KfW Endowed Chair for Entrepreneurship at the European Business School in Germany designed the first GUESSS questionnaire.

The questionnaire relies on ‘entrepreneurial intent’ as key construct to predict entrepreneurial behavior. Thompson (2009, p8) defines individual entrepreneurial intent as a “self-acknowledged conviction by a person that they intend to set up a new business venture and consciously plan to do so at some point in the future”. In the psychological literature, intentions have proven the best predictor of planned behavior. Since the individual decision to start a business requires time and planning, it has the characteristics of a planned behavior. Hence intention models are well suited to predict and, most importantly, to explain entrepreneurial activity (Krueger, 2000). The drawback of observing intentions rather than behavior is that entrepreneurial intent is a necessary not a sufficient condition for nascent entrepreneurs (Thompson, 2009). On the other hand observing students’ career attitude is particularly insightful as intentions are unbiased predictor of action, even where time lags exist between intention and behavior (Krueger, 2000). This is of great importance for students, who are most likely to be engaged in entrepreneurial activity after finishing studies. Another advantage of intention models is the ability to explain how exogenous variables, such as individual and situational factors affect attitudes toward the behavior (Krueger, 2000). This is consistent with the goal of getting practical implications from the survey about measures that may encourage entrepreneurial engagement.

The questionnaire design is based on the constructs of the Theory of Planned Behavior (TPB) intention model (Ajzen, 1991; 2002). The framework is designed to predict planned behavior that is not under complete volitional control, such venture creation: the ability of an individual to start a new firm often depends on external factors (Autio et al., 2001). The model has been empirically proven to effectively explain both entrepreneurial intentions and behavior (Kautonen et al., 2013). It perfectly fits the goal of the survey to get insights about the actions to undertake in order to improve the effectiveness of education to promote entrepreneurship among students. TPB not only predicts behavior, but also explain it through attitudes, skills and values of the individuals. These drivers can all be influenced by education (Grilo and Thurik, 2008).

According to TPB, the main predictor of the behavior is intention. The survey investigates entrepreneurial intention (EI) by asking students about their career attitudes directly after graduation and five years after graduation, according to the mentioned Thompson’s definition of intention that accounts for plans delayed in the future. A particular emphasis is devoted to the investigation of entry mode into entrepreneurship, founding or succession. The questionnaire asks also students to assess the strength of their EI intention, since EI “is not simply a yes or no question, but a matter of extent ranging from a very low, effectively zero, to a very high degree of personal, conscious conviction and planning to start a new

business” (Thompson, 2009, p8). The stronger the intention the higher the probability to perform the behavior.

The second predictor of behavior perceived behavioral control (PBC) which denotes the perceived ease or difficulty of performing the behavior. The greater the confidence about mastering an activity the larger the probability to persevere despite external impediments. The survey collects information about the perceived ability to perform specific entrepreneurial activities and their overall confidence in succeeding in being an entrepreneur.

According to TPB there are three determinants of intentions. The first one is attitude towards behavior and refers to the individual’s evaluation of the target behavior. To measure attitudes the survey asks about the expected outcomes and risks linked to entrepreneurial activities. The second determinant of intention are subjective norms that capture the opinions of social reference groups regarding whether the individual should engage in the behavior. Respondents provide information about their perceptions about the approval of entrepreneurial activity by important referents and about the cultural values of their community. The third predictor of intention is the already mentioned PBC.

The survey collects also data about exogenous factors that the literature has proven to influence EI. According to TPB the impact of these variables on EI is fully mediated by the antecedents of intention (Kautonen et al., 2013). In particular students are asked about their personal and family background, motives for career attitudes and university context.

Personal background includes age, gender, education and working experience which literature has shown to affect the decision to become an entrepreneur (Santarelli and Tran, 2013; Minniti and Nardone, 2007; Grilo and Thurik, 2006).

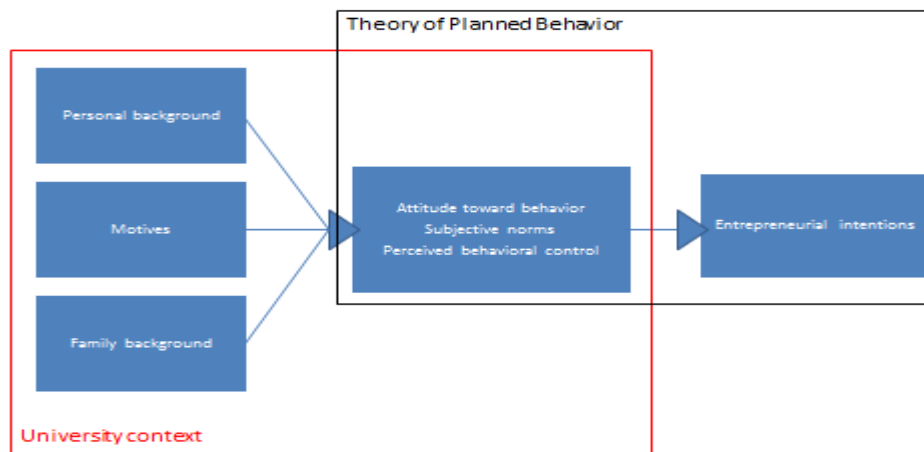
Respondents also report the working status of parents and relatives, given the stylized fact that the decision to become an entrepreneur is correlated positively with having parents who are or were entrepreneurs (Bosma et al., 2012).

The motives for career choice are important determinants of EI antecedents. In addition to financial aspects, there are a number of nonfinancial reasons to become an entrepreneur, including being independent or autonomous, having the opportunity to use one’s skills and abilities, and the nature of the work (Block et al., 2013a).

Finally particular emphasis is assigned to the investigation of the university context, given the potential effect of education on entrepreneurial skills, attitude and intention (Martin et al., 2013). Students were asked about their perception of entrepreneurial education offers of their university.

Figure 2.1 depicts the theoretical framework of the questionnaire.

Figure 2.1: Theoretical framework of the GUESSS questionnaire



## 2.2 Sample Selection

Data have been collected among students in higher education of different study fields and at different education levels (e.g., undergraduate, graduate) in the Italy. Students had the possibility to respond to the questionnaire both online and in the class. To motivate students to participate, who completed the survey could participate to a lottery that offered a journey to Silicon Valley or Ischia. In addition respondents were allowed to skip some questions in order to encourage participation of those hesitating to provide full personal information. The complete GUESSS data set for 2013 includes information from 109,026 respondents across 34 countries, of which 7,765 are from the Italy. Table 2.1 presents the participating universities to the Italian GUESSS survey.

Table 2.1: Participating universities to the Italian GUESSS survey

University	Frequency	Percent
Politecnico di MILANO	262	3.37%
Politecnico di TORINO	1,890	24.34%
Scuola Internazionale Superiore di Studi Avanzati di TRIESTE	10	0.13%
Seconda Università degli Studi di NAPOLI	162	2.09%
Università Carlo Cattaneo - LIUC	112	1.44%
Università degli Studi del MOLISE	138	1.78%
Università degli Studi di BERGAMO	1,437	18.51%
Università degli Studi di GENOVA	10	0.13%
Università degli Studi di NAPOLI "Parthenope"	56	0.72%
Università degli Studi di PADOVA	1,589	20.46%
Università degli Studi di SIENA	32	0.41%
Università degli Studi di TRIESTE	1,238	15.94%
Università degli Studi di UDINE	718	9.25%
Other <sup>1</sup>	111	1.43%
<b>Total</b>	<b>7,765</b>	<b>100.00%</b>

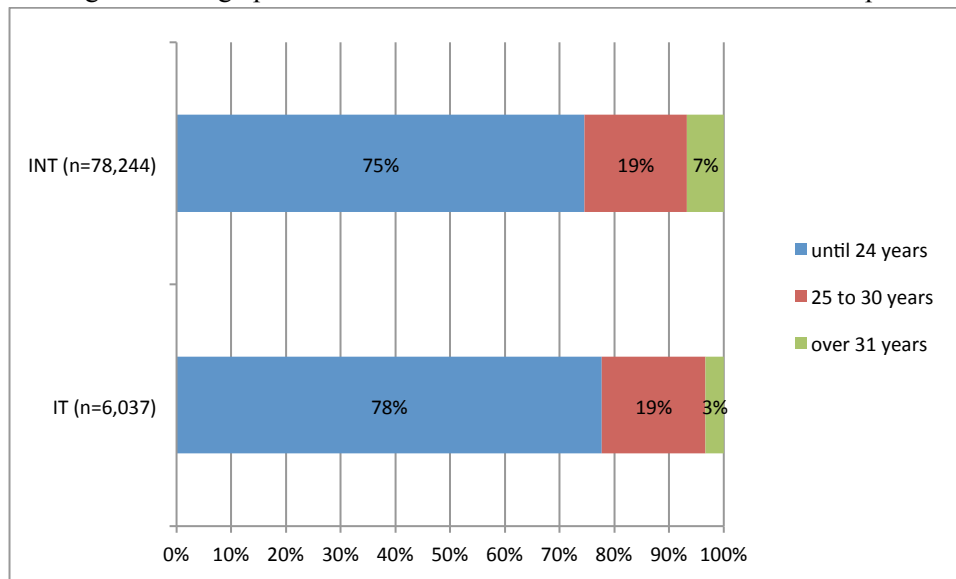
<sup>1</sup> Universities with less than 10 respondents

### 3. SAMPLE PROFILE

#### 3.1 Personal Information

The average age of students who participated in GUESSS Italy is 22.93 years, slightly under the international mean (23.08). Figure 3.1 below shows that most students (78%) can be found in the age category of ‘20 to 24 years old’. Almost 19% are aged between 25 and 30 years old, and the remaining 3% belongs to the category of ‘31 years and older’.

Figure 3.1: Age profile of the Italian and international GUESSS samples<sup>2</sup>



There were major differences when comparing the Italian sample (47 % female respondents, valid responses=7,750) with the international sample (58 % female respondents, valid responses=108,844)<sup>3</sup>.

Most of the students of the sample (i.e. 94%) are Italian as shown Table 3.1 below.

Table 3.1: Nationality of the respondents in the Italian sample<sup>4</sup>

Nationality	Frequency	Percent
Italian	7,153	93.88%
Albanian	53	0.70%
Chinese	38	0.50%
Greek	1	0.01%
Romanian	45	0.59%
Israeli	2	0.03%
Cameroon	18	0.24%
Other	309	4.06%
<b>Total</b>	<b>7,619</b>	<b>100%</b>

<sup>2</sup> Excluded not applicable responses

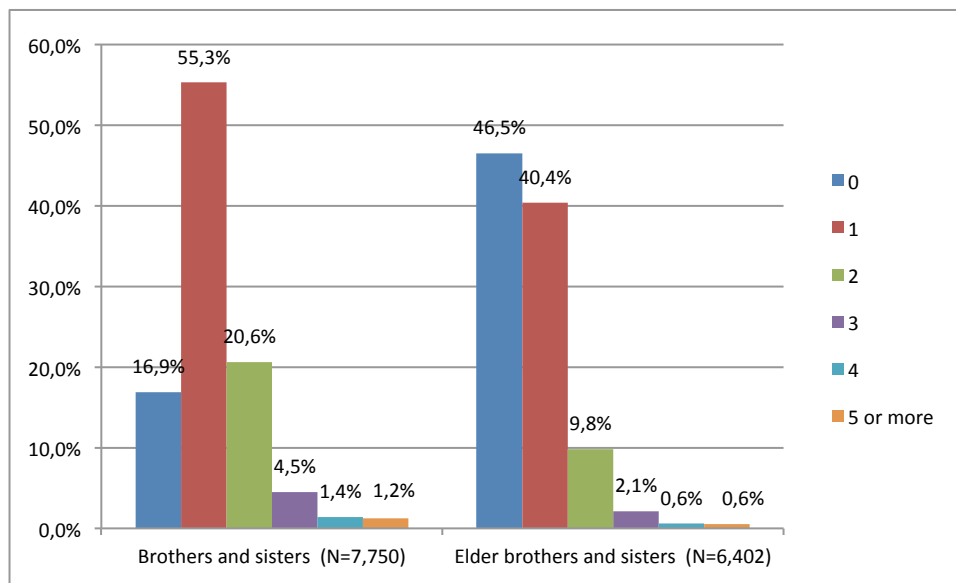
<sup>3</sup> Excluded not applicable responses

<sup>4</sup> Excluded not applicable responses

The marital status of respondents reflects the largely young age cohort in the samples. Not surprisingly, most of the participating students are single (85%) or living together without a formal binding agreement (12%). Still, about 184 students are married and only 19 divorced.

Most of the sample have at least one brother (83%). Among them more than half report have at least one elder brother (Figure 3.2). The purpose of this question was to understand the probability or need for a student to take over the family business in the (near) future, which clearly impacts one's entrepreneurial intentions.

Figure 3.2: Family composition of the respondents in the Italian sample<sup>5</sup>

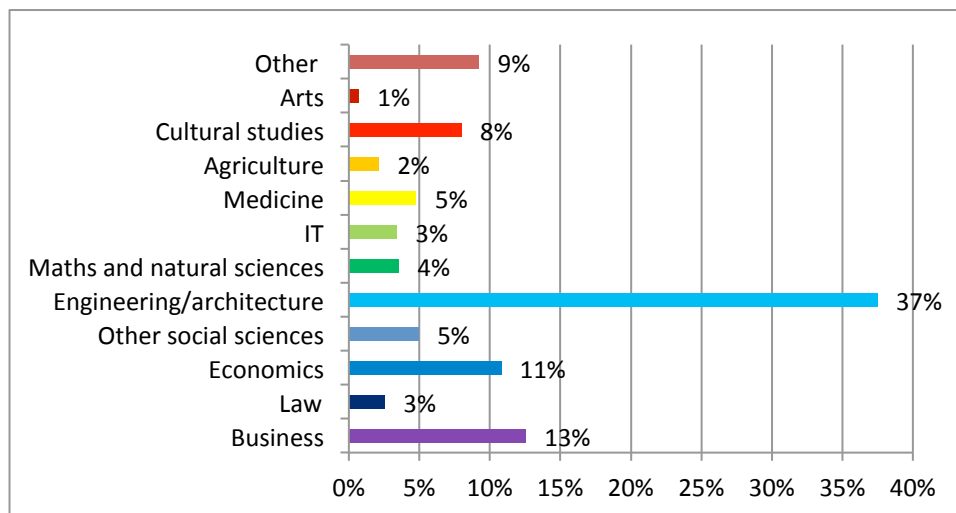


### 3.2 Student-related Information

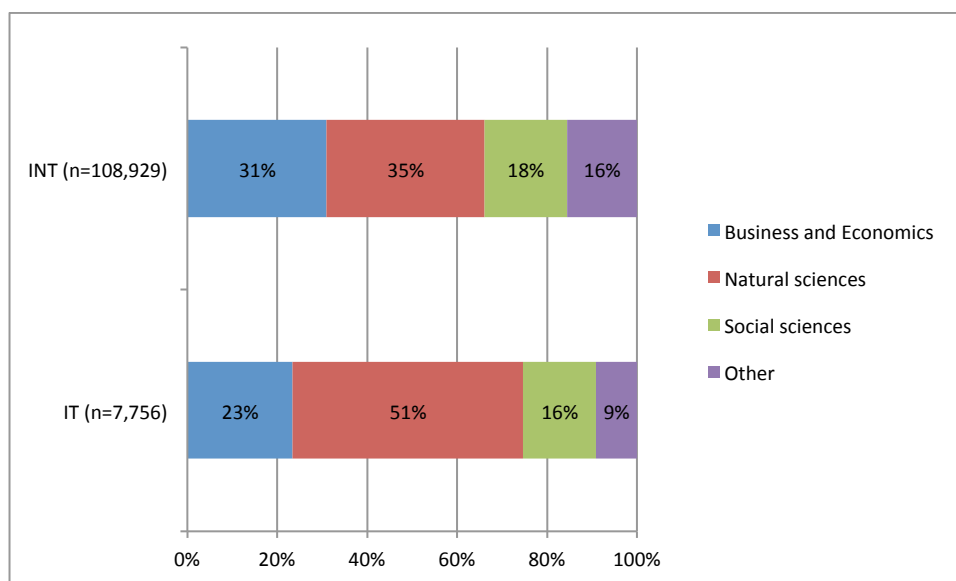
4% of the students reported an exchange status, whereas 25% respondents were working regularly while attending the university.

Figure 3.3 gives an overview of the study background of students who participated in the GUESSS study. Most of the participating students are in Engineering and Architecture (37%), followed by Business and Economics (13% and 11% respectively). These percentages do not represent the actual participations of Italian students in each of those general areas of study. They are determined by the universities that participated to the survey and by the decision of each institution when deciding which students would participate in the survey.

<sup>5</sup> Excluded not applicable responses

Figure 3.3: Field of study of the respondents in the Italian sample (n=7,756)<sup>6</sup>

The fields of study of the students were grouped in three general fields. Business and Economics includes all areas of economics and management. Natural Sciences include Medicine and Health Sciences, Mathematics, Natural Sciences, Engineering, Architecture, Computer and Information Technology. Lastly, Social Sciences include Linguistics, Cultural Studies, Pedagogy, and other Social Sciences such as Sociology and Political Science. Using this general classification (Figure 3.4), almost 51% of the respondents belong to Natural Sciences, whereas 23% study Business and Economics. Only a 16% of students in the sample study other Social Sciences. Compared to the international sample, in the Italian GUESSS sample students from Natural Sciences are more represented, whereas students from Business and Economics are less present.

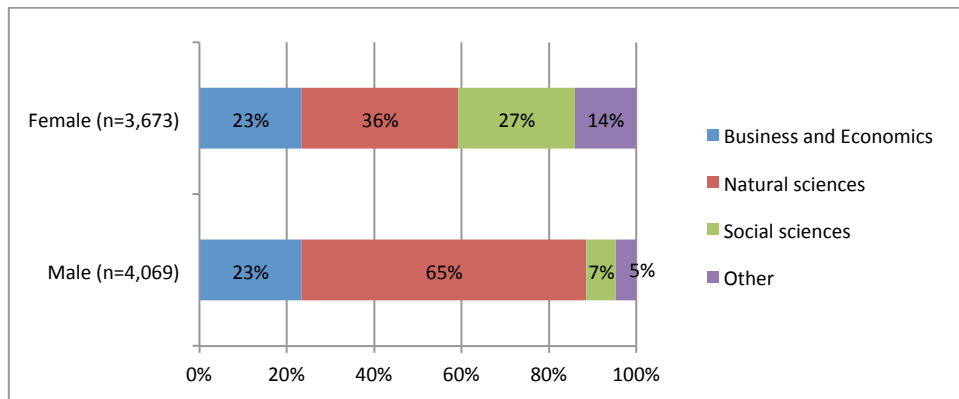
Figure 3.4: Study area of the respondents in the Italian and international GUESSS samples<sup>7</sup>

<sup>6</sup> Excluded not applicable responses

<sup>7</sup> Number of applicable responses

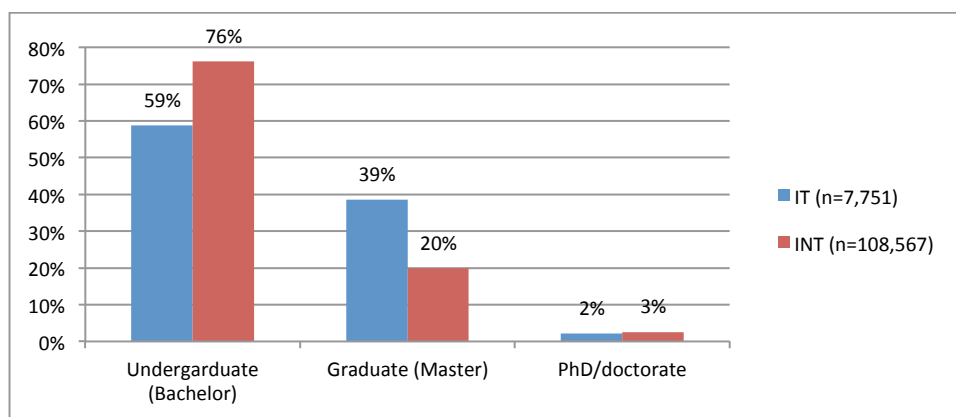
Even if the total sample is almost equally divided between males and females, the composition of students enrolled in different study area varies significantly<sup>8</sup> in terms of gender (Figure 3.5). In particular, compared to female students, males are more represented in Natural Sciences and less in Social Sciences. The large presence of students from Natural Sciences may explain why in the Italian sample males are more present than in the international sample.

Figure 3.5: Study area of respondents by gender in the Italian sample<sup>9</sup>



As shown in Figure 3.6, participants study at different levels. Most students are undergraduates and enrolled in a bachelor program (59%), followed by students studying on a master level (39%). A minority of participants is enrolled in a doctoral program (2%). Only 10 and 28 students respectively follow a postdoc or executive program. Italian respondents are more frequently already graduate compared to the international GUESSS sample.

Figure 3.6: Level studies of the respondents in the Italian and international GUESSS samples<sup>10</sup>



When asked to assess their study performance on a 7-points Likert scale, on average Italian students have ranked themselves 4.75 in line with the international GUESSS sample (4.78).

<sup>8</sup> Significance test: Pearson's chi-square; level of significance  $p < 0.001$

<sup>9</sup> Excluded not applicable responses

<sup>10</sup> Excluded not applicable responses

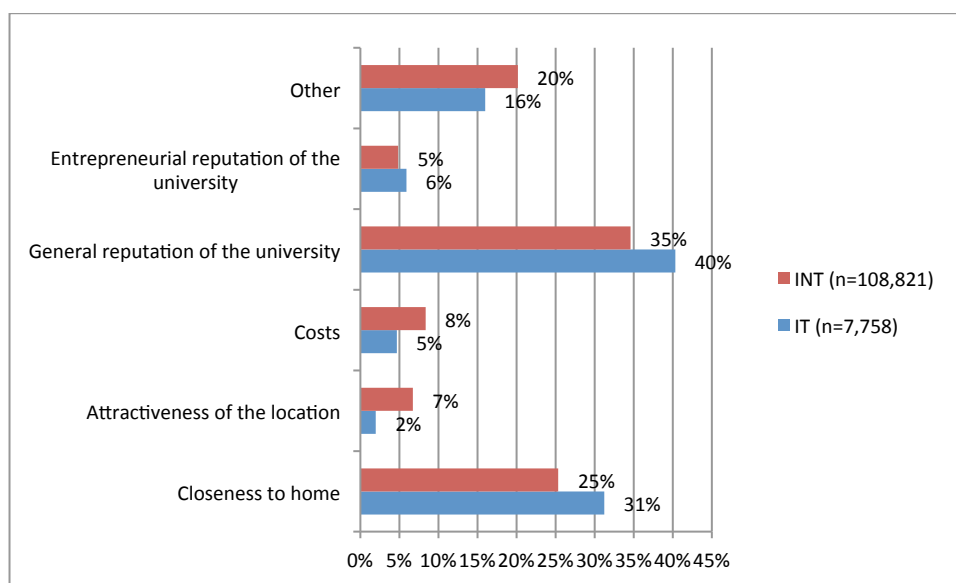


## 4. UNIVERSITY CONTEXT AND ENTREPRENEURSHIP EDUCATION

### 4.1 Reasons behind the Choice of the University

Figure 4.1 below gives an overview of Italian students' reasons behind their choice of the university they attend. Overall the most important reason is general reputation (40%), followed by closeness to home (31%). Entrepreneurial reputation of the university appears a minor factor in the choice of the university (6%). Still it is more relevant than reasons linked to costs and attractiveness of the location. Compared to the international GUESSS sample, more Italian students have placed attention on general reputation and closeness to home, whereas more international students have considered factors as attractiveness of location and costs.

Figure 4.1: Reasons behind the choice of university in the Italian and international GUESSS samples<sup>11</sup>

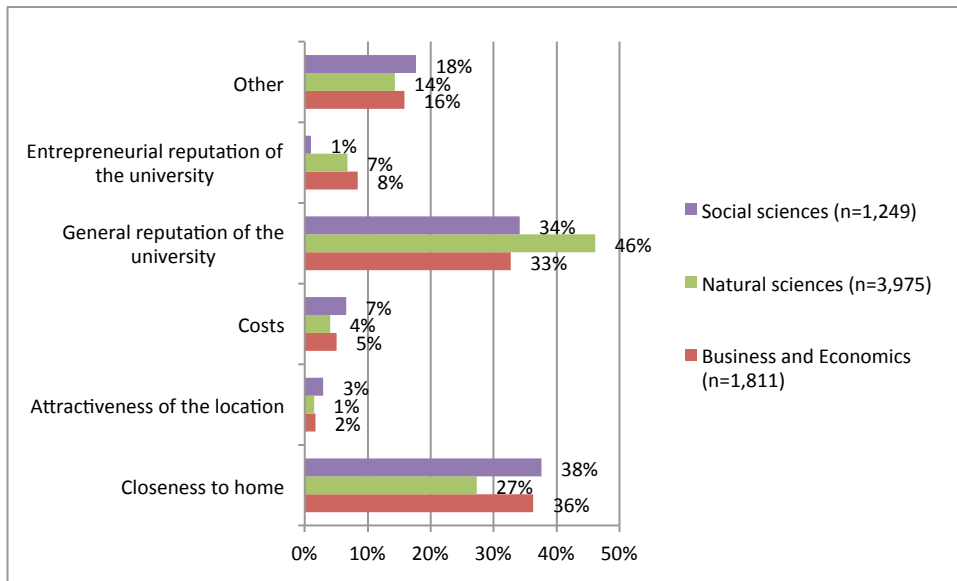


Reasons behind the choice of university differ significantly among fields of study<sup>12</sup> (Figure 4.2). In particular students of Business and Economics place more importance to entrepreneurial rather than general reputation of the university, compared to students enrolled in other study areas. Students of Natural Sciences are most influenced by general reputation of the university. Finally students of Social Sciences, as expected, seldom consider entrepreneurial reputation in their choice of university. On the other hand, compared to other respondents, closeness to home is the most important factor (38%) and cost considerations are more relevant for students of Social Sciences, suggesting that some of them attend university not for real conviction but because of the lack of alternative activities.

<sup>11</sup> Excluded not applicable responses

<sup>12</sup> Significance test: Pearson's chi-square test; level of significance  $p < 0.001$

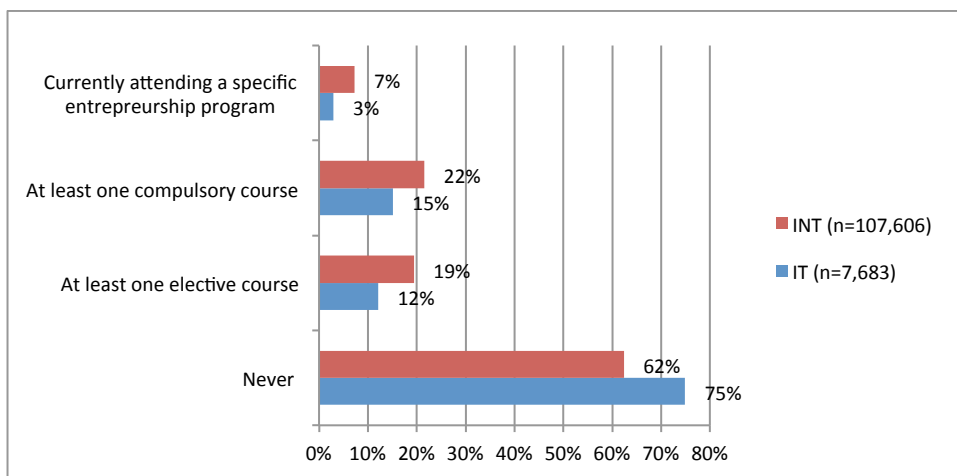
Figure 4.2: Reasons behind the choice of the university by field of studies in the Italian sample<sup>13</sup>



#### 4.2 Entrepreneurship Courses

Figure 4.3 gives an overview of the attendance of the respondents to entrepreneurship courses. Students of the Italian GUESSS sample report a lower participation to entrepreneurial offerings of university compared to the international sample. 75% of the Italian participants have never attended a course dedicated to entrepreneurship (against 62% of the international sample). Compulsory and elective entrepreneurial courses have been attended 15% and 12% of times respectively (compared to 22% and 19% of the international sample). Finally only 3% of the Italian GUESSS sample have participated to a specific entrepreneurship program, against 7% of the international sample.

Figure 4.3: Participation to entrepreneurship courses in the Italian and international GUESSS samples<sup>14</sup>

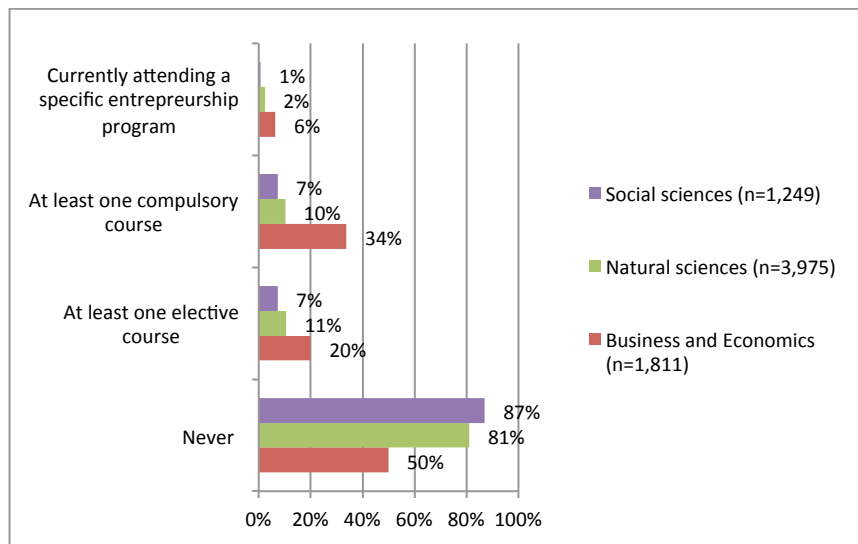


<sup>13</sup> Excluded not applicable responses

<sup>14</sup> Excluded not applicable responses

Looking at students of Business and Economics their participation to entrepreneurship offerings differs significantly<sup>15</sup> from students from other study areas. In particular only half of them have never attended an entrepreneurial course (Figure 4.4). However only 20% of them has chosen an elective course for entrepreneurship. The lower fraction of Business and Economics students in the Italian GUESSS sample could explain why they report a lower attendance to entrepreneurial courses. Not surprisingly in the Natural and Social Sciences areas among students who have participated to entrepreneurial courses greater part has been involved in elective courses, compared to students of Business and Economics, suggesting that part of these ones has been forced by the study plan to attend entrepreneurial education. The choice of elective entrepreneurial courses by students of Natural and Social Sciences could be due to the fact that they are perceived as more easy than other courses.

Figure 4.4: Participation to entrepreneurship courses by field of study in the Italian sample<sup>16</sup>



The participation to university courses differs significantly<sup>17</sup> among non-founders, intentional founders, active founders and serial founders<sup>18</sup> (Figure 4.5). Non founders are less inclined to choose elective courses, but no significant difference exists regarding the choice of compulsory entrepreneurial courses. This is consistent with the fact that a student who desires to be an entrepreneur would purposely enroll in entrepreneurship courses<sup>19</sup>, whereas compulsory programs exhibit a mix of participants interested or disinterested in entrepreneurship. It is insightful that serial founders are more represented in specific entrepreneurial programs and in elective courses. Despite their entrepreneurial experience they see the university as an opportunity to strengthen their competences. The different involvement into university

<sup>15</sup> Significance test: Pearson's chi-square test; level of significance  $p < 0.0001$ .

<sup>16</sup> Excluded not applicable responses

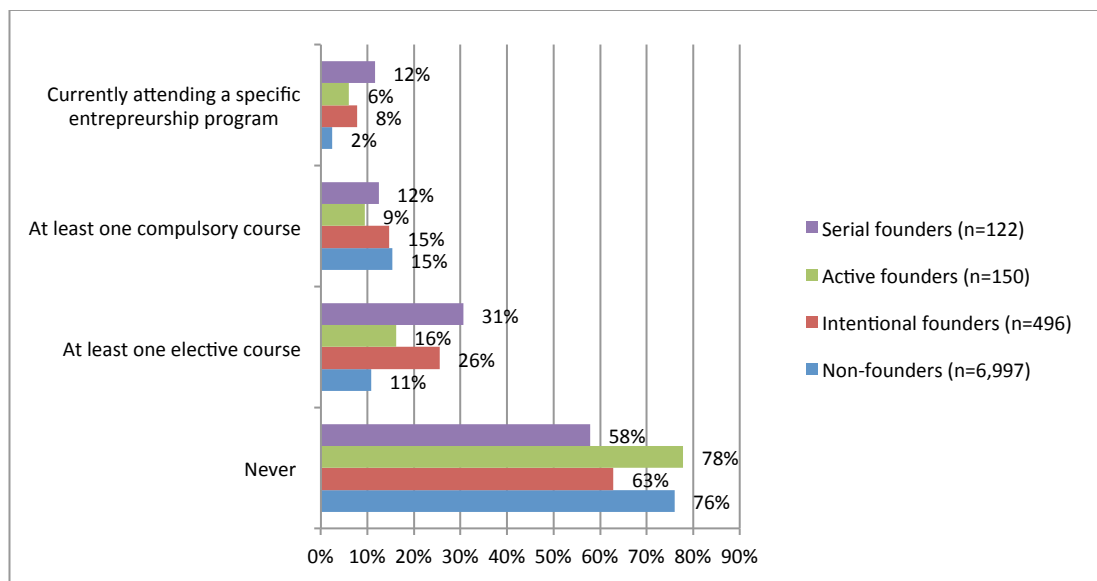
<sup>17</sup> Significance test: Pearson's chi-square; level of significance  $p < 0.001$  for all statements except for attendance to compulsory courses ( $p > 0.15$ )

<sup>18</sup> Intentional founders are currently planning to start a business. Active founders are already self-employed. Serial founders are active founders who are planning to start a new business.

<sup>19</sup> Scholars have termed this choice a "self-selection bias" (Bae et al., 2014).

entrepreneurship offerings by founding intention suggests that entrepreneurial education programs serve different needs (Linan, 2004): education for awareness of career as entrepreneur, preparation for aspiring entrepreneurs and management training for existing entrepreneur. It seems that university focuses more on the first two types of offers, while forgoing somewhat the third one as reflected in the participation to entrepreneurial course of active entrepreneurs. They appear to be less interested in deepening their skills participating to entrepreneurial offerings of their university compared to novice and serial intentional founders.

Figure 4.5: Participation to entrepreneurship courses by founding intention<sup>20</sup>



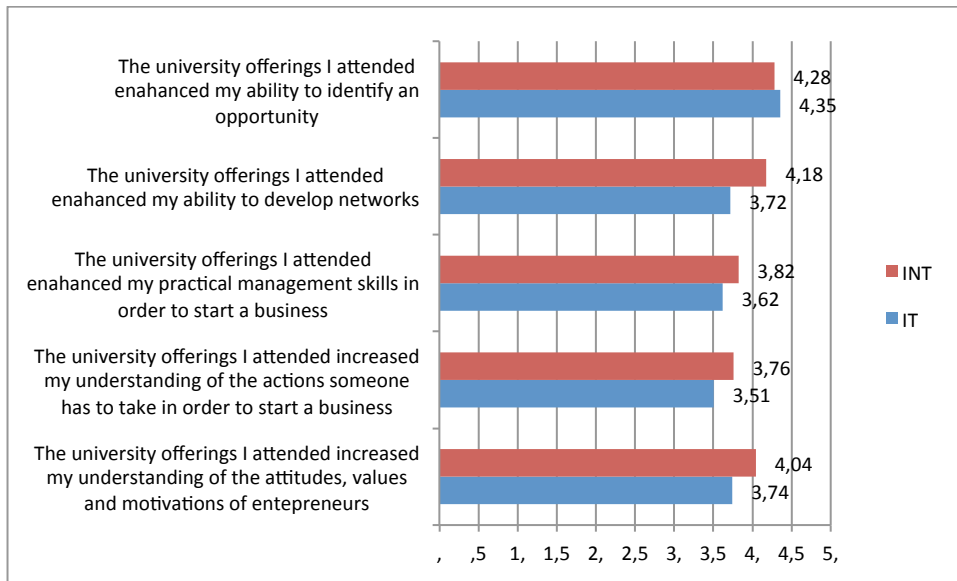
### 4.3 Influence of the University Offerings on Students' Entrepreneurial Intentions

The study also analyzes the impact of the university offerings on the students' entrepreneurial intentions and behavior based on a self-assessment with a seven-point Likert scale. Respondents are asked to assess their level of agreement with statements which cover the channels through which entrepreneurial education influence intentions (Bae et al., 2014). First it may enhance human capital by developing the understanding of entrepreneurial skills and attitudes; second university climate may increase the self-confidence of students about being successful as entrepreneur.

Figure 4.6 shows the perceptions of students about the effect of their education on entrepreneurial skills and attitudes. The highest level of improvement can be found for the ability *to identify an opportunity* (4.35), while the lowest scores are related to *practical management skills* (3.62) and *actions needed to start a business* (3.51), suggesting that university education is less effective in teaching practical oriented competences. This seems more evident for the Italian rather than for the international GUESSS sample.

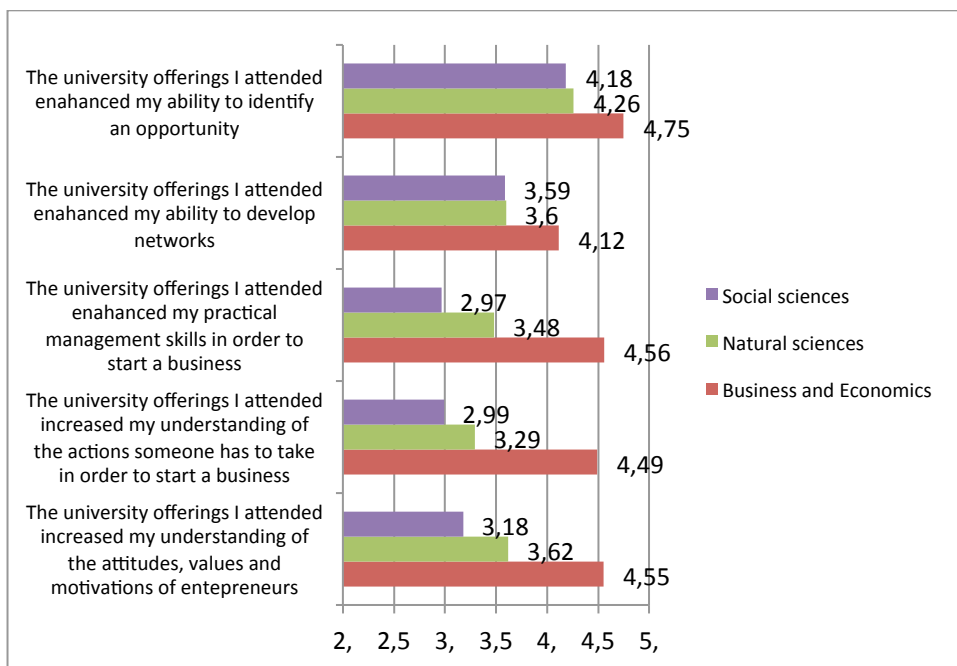
<sup>20</sup> Excluded not applicable responses

Figure 4.6: Effect of university offerings on entrepreneurial competences in the Italian and international GUESSSS samples



If we compare the effect on entrepreneurial skills of education significant<sup>21</sup> differences can be found among study areas. Not surprisingly students of Business and Economics exhibit higher scores for all statements, especially for the more practical oriented activities. The lower fraction of students of Business and Economics in the Italian GUESSSS sample could partially explain the lower effect of the learning experience on entrepreneurial competences in the international comparison

Figure 4.7: Effect of university offerings on entrepreneurial competences by field of study in the Italian sample



<sup>21</sup> Significance test: Fstar test; level of significance  $p < 0.0001$  for all statements

Not surprisingly a different<sup>22</sup> assessment of the development of their competences by entrepreneurial behavior has been pointed out (Figure 4.8). In particular intentional founders (both novice serial) report greater effect of education on their competences, suggesting that they gain more from entrepreneurial offerings of their university. As seen before they are more likely to choose elective entrepreneurial courses. Compared to intentional founder, active founders are less affected by university offerings. This could be explained by the fact that they already have specific entrepreneurial competences or because university offerings are not targeted in filling their knowledge gaps. In this case universities should increase the ability to enhance skills of active founders given the importance of task-related human capital as driver of entrepreneurial success (Unger et al., 2011).

Figure 4.8: Effect of university offerings on entrepreneurial competences by founding intentions in the Italian sample

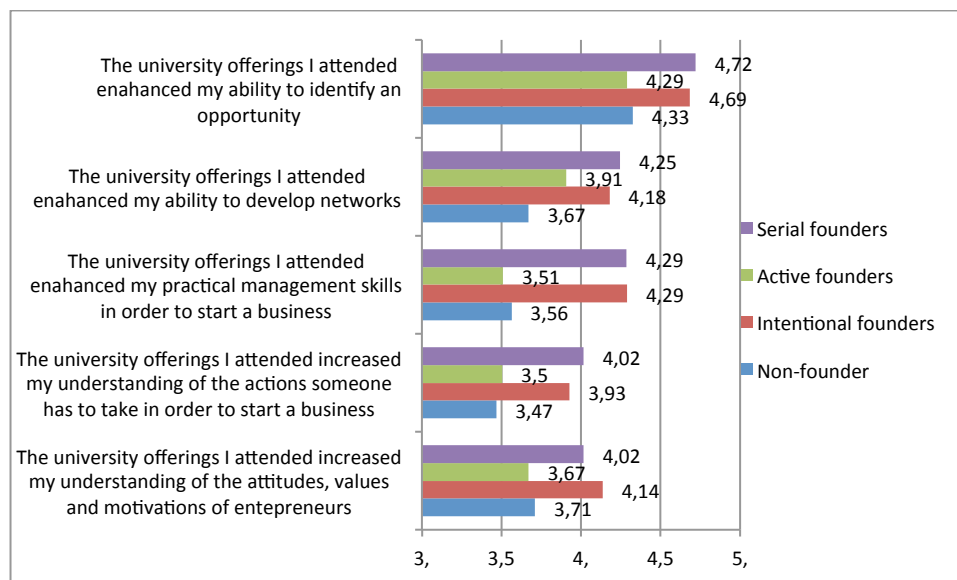


Figure 4.9 depicts the perceptions of students about university climate by study sector. The climate is more<sup>23</sup> favorable to entrepreneurship in the Business and Economics area, followed by Natural and Social Sciences. The lower fraction of students of Business and Economics in the Italian GUESSS sample could partially explain why Italian universities are perceived as less favorable to entrepreneurship in an international comparison (Figure 4.10).

<sup>22</sup> Significance test: univariate ANOVA; level of significance  $p < 0.0001$  for all statements; equal variance not rejected by Barlett's test for all items ( $p > 0.05$ )

<sup>23</sup> Significance test: univariate ANOVA; level of significance  $p < 0.0001$  for all statements; equal variance not rejected by Barlett's test

Figure 4.9: Perception of university climate by field of study in the Italian sample

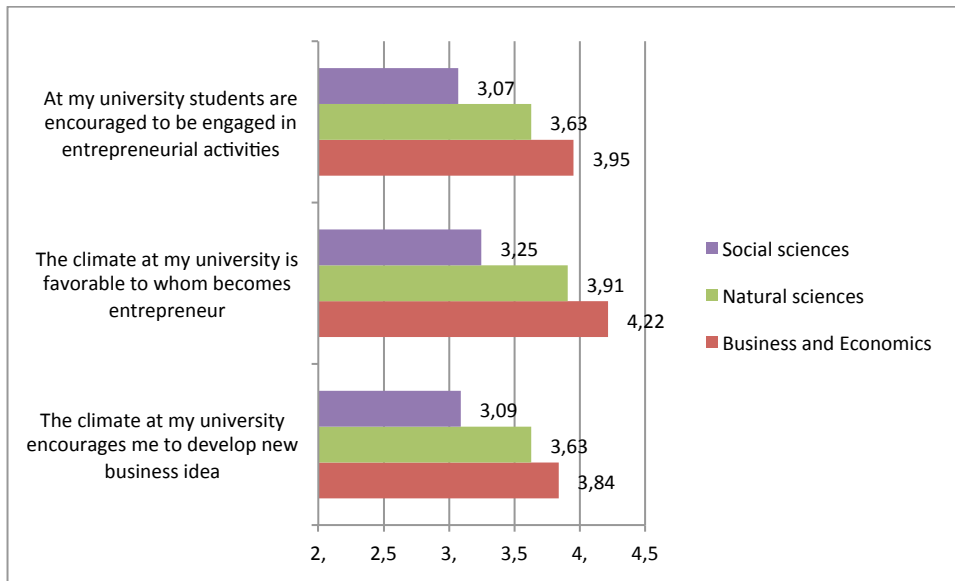
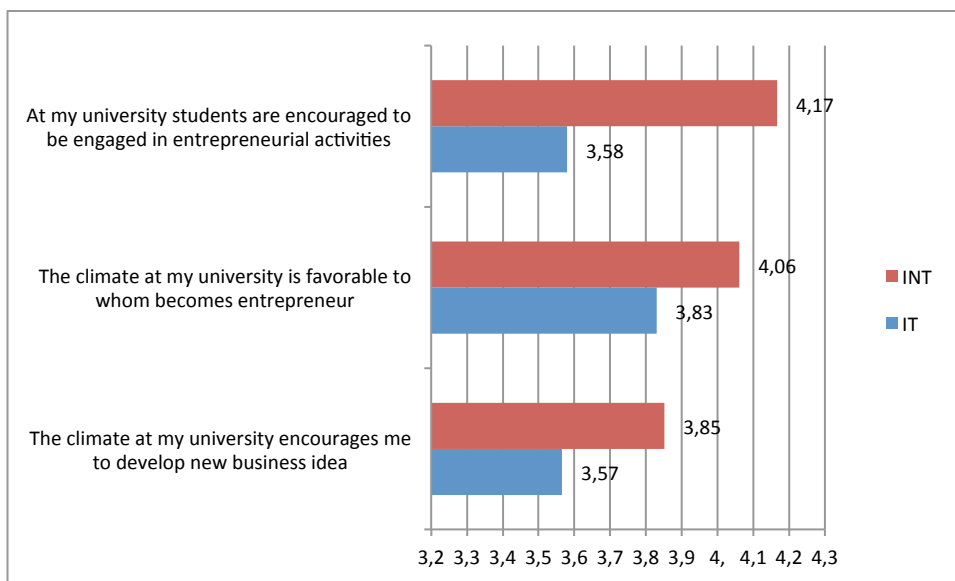


Figure 4.10: Perception of university climate in the Italian and international GUESSS samples

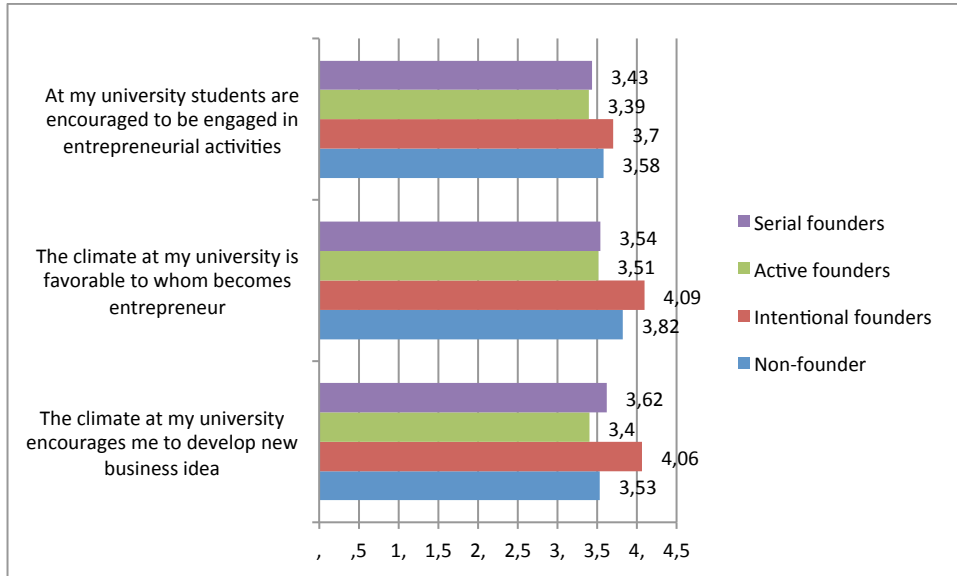


The perceptions of university climate by founding intention (Figure 4.11) clearly<sup>24</sup> show that intentional founders perceive it more favorable than active and non-founders, suggesting that education institutions may foster entrepreneurial intentions exposing students to a suitable context (Bae et al., 2014). However only a weak significant difference has been found when it comes to encourage students to concretely be engaged in entrepreneurial activities. This suggests universities should revise their policies if they aim to foster intentional founders to apply as self-employed what they have learnt. Universities should also be concerned about the bad perceptions of active founders about the attitude of institutions toward

<sup>24</sup> Significance test: fstar and wtest; level of significance  $p < 0.0005$  for all statements, except for "encouraged to be engaged in entrepreneurial activity" (significance  $p > 0.15$ ).

entrepreneurship. As shown before, active founders do not perceive university entrepreneurial offerings as targeted to their needs. This is reflected in a negative assessment of the surrounding climate.

Figure 4.11: Perception of university climate by founding intention





## 5. CAREER CHOICE INTENTIONS

### 5.1 Long and Short-Term Career Choice Intentions

The expressed intention to aspire either self-employment or employment directly after studies respectively five years after graduation can serve as a first indicator for the strength of an individual entrepreneurial attitude (Krueger, 2000). The distinction between long and short term intention, as customary in intention models (Autio et al., 2001), allows to have a more accurate answer from those intending to become an entrepreneur immediately after completing their studies and those intending to become entrepreneurs after a few years of working.

Generally it can be stated that directly after their graduation more than half of the respondents (64%) intend to start their career as an employee (42% in an SME, 22% in a large firm). An academic career at a university is preferred by 7%. 6% regarded the public service to be a more likely career option, whereas 4% intends to be employed in a non-profit organization. Therefore right after the studies about four fifths of the respondents strive for an employment in organizations; 5% of the students intend to start or continue an own venture and 2.9 % aim to take over an existing company. In particular 2.1% want to take over parents' family firm.

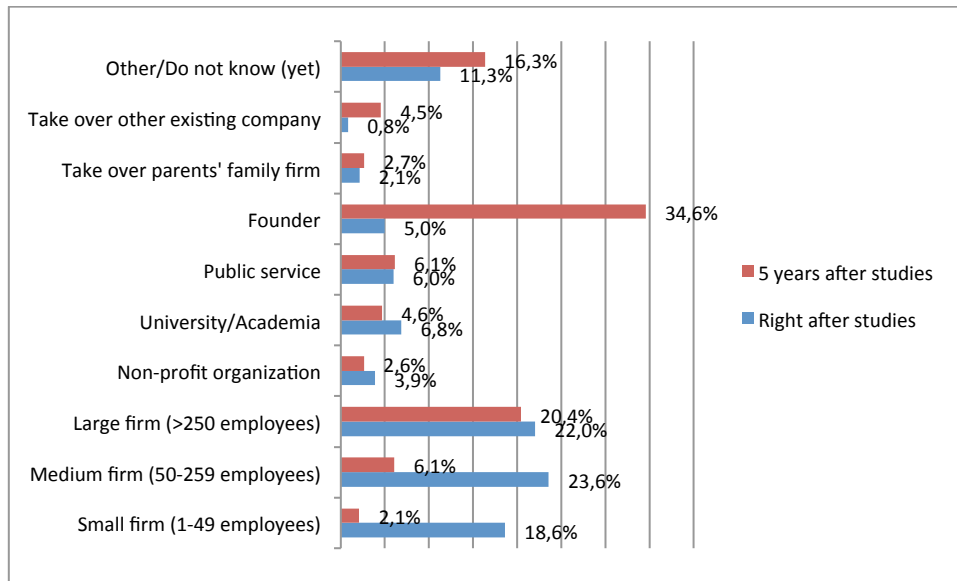
Five years after graduation this picture is completely different (Figure 5.1)

- Only less than half of the Italian students (42%) tend to be employed (20% in a large firm, 8% in a SME, 4.6 % at universities, 2.6% in a non-profit organization and 6.1% in the public service).
- 35 % of the respondents intend to found an own company and 7% of the students are interested in taking over an existing company as a career option.
- Figure 5.1 points out that this increase is not due to the succession of a family business but can mainly be attributed to an increase in external succession. It seems that most of family successors think they are able to carry out the take-over directly after studies, whereas external successors prefer to make some experience before, suggesting that this kind of succession requires greater competences.

Observing the change of career choice intentions directly after studies and 5 years after graduation it can be noticed a shift from intention to be employee in a SMEs (decreasing from 42% to 8%) to the intention to found a company (from 5% to 35%) or to take over an existing company (from 0.8% to 4.5%). This suggests that students prefer to have some working experience in a small firm before being self-employed<sup>25</sup>. Being employed in a SME may represent a way to develop those practical skills that universities do not teach. Given that experience in industry or management is found to contribute to entrepreneurial success (Unger et al., 2011), this career path is understandable. Yet, entrepreneurial experience is likely to contribute even more to entrepreneurial success, whereas the effects of labor force experience on venture performance are generally weak (Santarelli and Tran, 2013).

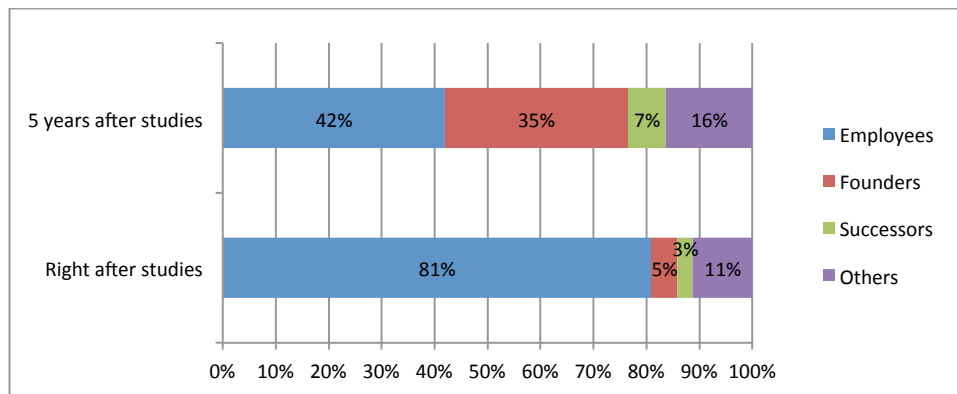
<sup>25</sup> A specific analysis shows that aspiring founders 5 years after graduation, intend to start their working career mostly as employee (82%)

Figure 5.1: Career choice intentions directly after studies and five years after graduation in the Italian sample (n=7,765)



In figure 5.2 career choice intentions were classified into the groups of employees, founders, successors and others. This shows more clearly the tendency of students to be more attracted by a career as self-employed rather than employee five years after the studies.

Figure 5.2: Career choice intentions by groups in the Italian sample (n=7,765)



The need of having working experience before being self-employed that seems to emerge from the above figure is supported by significant differences that were found between workers and non-workers in terms of career choice intentions<sup>26</sup> (Figures 5.3 and 5.4). This is in line with the positive relationship between working experience and probability to be self-employed (Burke et al., 2002). Working students were more likely to choose a career path as self-employed, but such difference was less significant in the long term.

<sup>26</sup> Significance test: Pearson's chi-square test; p<0.0005 for career right after studies; p<0.05 for career choice five years after graduation

Five years after graduation other students are expected to have some working experience too. Hence the current working status becomes less relevant for this time horizon.

Figure 5.3: Career choice intentions right after studies by students' working status in the Italian sample<sup>27</sup>

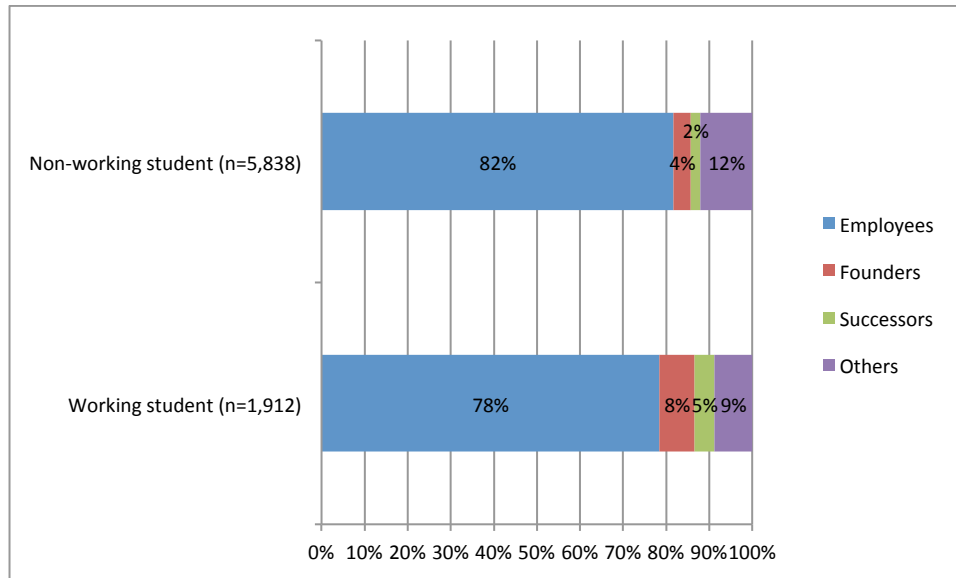
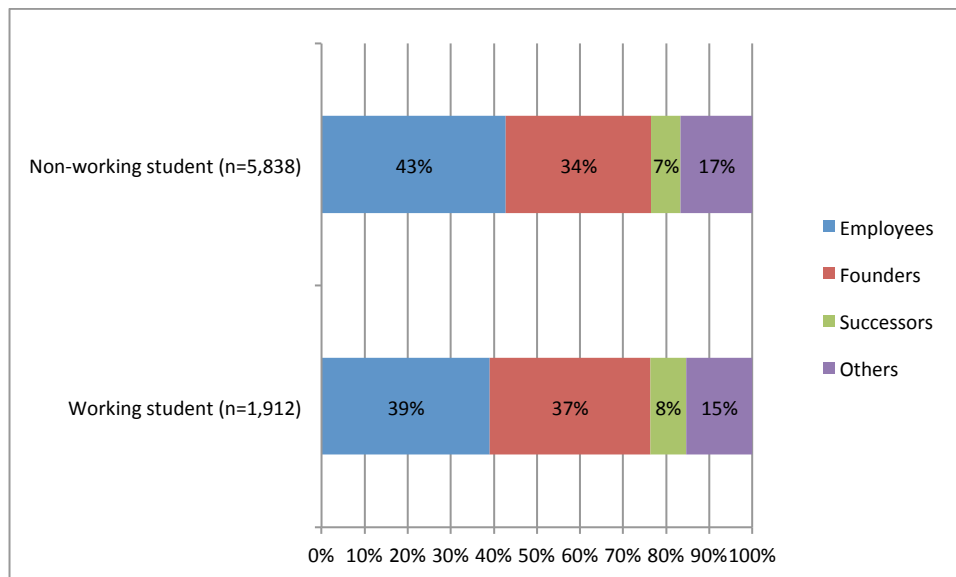


Figure 5.4: Career choice intentions five years after graduation by students' working status in the Italian sample<sup>28</sup>



The need to have some working experience before being self-employed seems particularly relevant in the Italian GUESSS sample in an international comparison. Compared to the international GUESSS sample, right after studies Italian respondents are more likely to choose employment in a SME and less inclined to found a business (Figure 5.5). However 5 years after studies the fraction of founders is higher in

<sup>27</sup> Excluded not applicable responses

<sup>28</sup> Excluded not applicable responses

the Italian GUESSS sample, whereas the rate of aspiring SME employees is higher in the international sample (Figure 5.6). This suggests that despite the high entrepreneurial potential of students, Italian university should improve their ability to provide the required competences to start a business right after studies. Another particular feature of career choice intentions both right after studies and five years after graduation of the Italian GUESSS sample is the higher fraction of intentional successors and the lower rate of students that aim to be employed in the public service compared to the international sample. It seems that in the Italian context succession is particularly valuable as entry mode into entrepreneurship. Chapter 10 will explore more in depth this topic. In particular it will be shown how succeeding parents' firm can be a way for intentional founder to build up entrepreneurial experience.

Figure 5.5: Career path right after studies in the Italian and international GUESSS samples

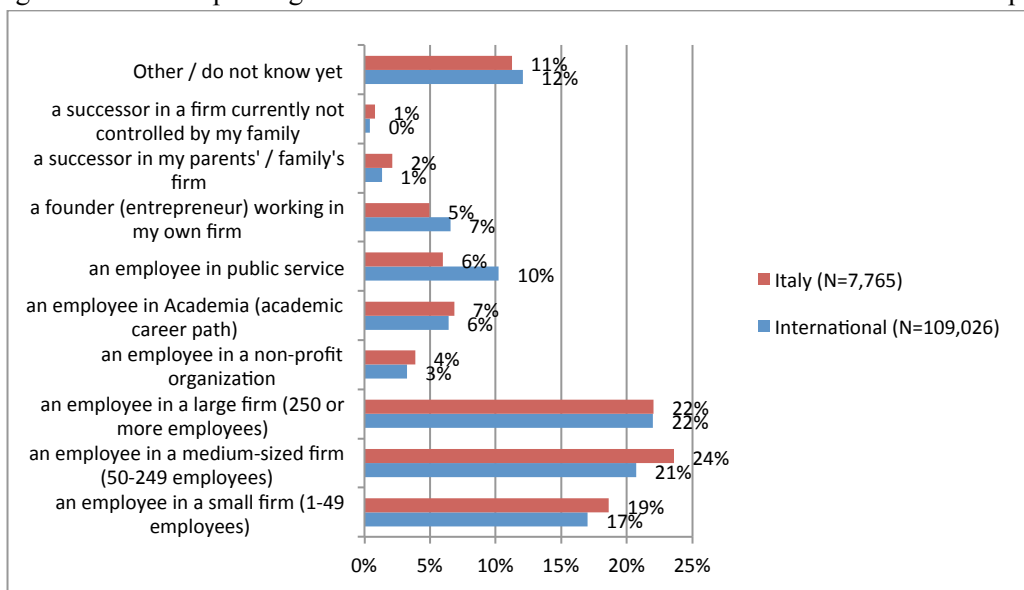
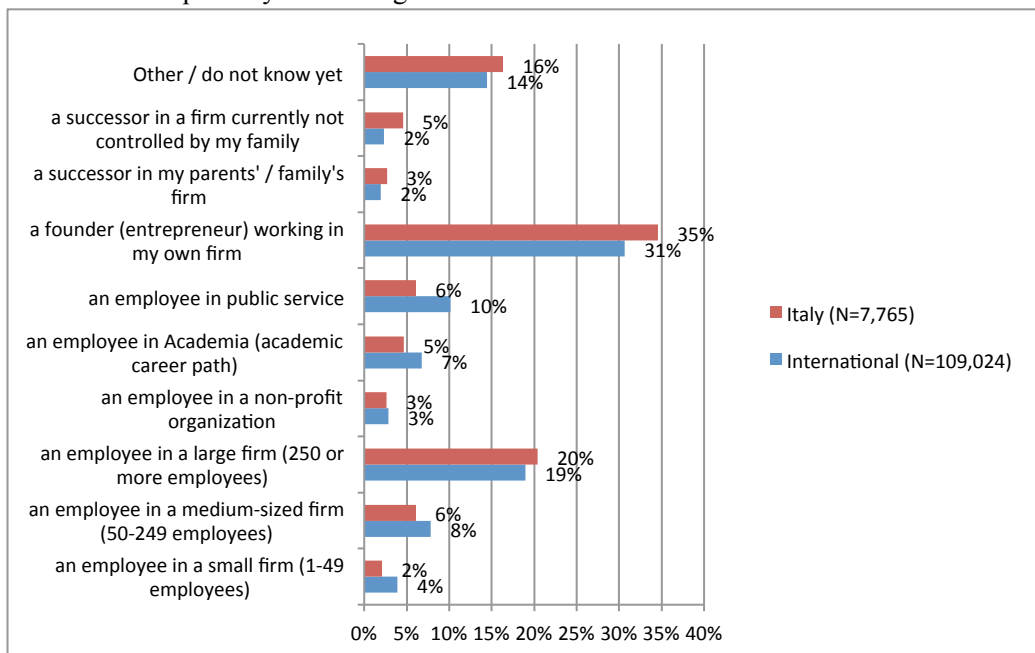


Figure 5.6: Career path 5 years after graduation in the Italian and international GUESSS samples



## 5.2 Career Choice Intentions by Gender

Directly after graduation 10% of the male graduates, but only 5% of the female graduates intend to start an entrepreneurial activity (Figure 5.7). This gender difference, however, is slightly reduced in a long-term perspective of five years after graduation, when 50% of the men and already 32% of the women plan a career as self-employed (Figure 5.8)<sup>29</sup>. Still, differences between men's and women's behavior with respect to employment choice may depend on factors that co-vary systematically with gender (Minniti and Nardone, 2007). In Chapter 6 these factors will be explored in depth thanks to the Theory of Planned Behavior framework. In particular it will be shown how antecedents of entrepreneurial intentions varies across gender.

Figure 5.7: Career choice intentions right after studies in the Italian sample by gender<sup>30</sup>

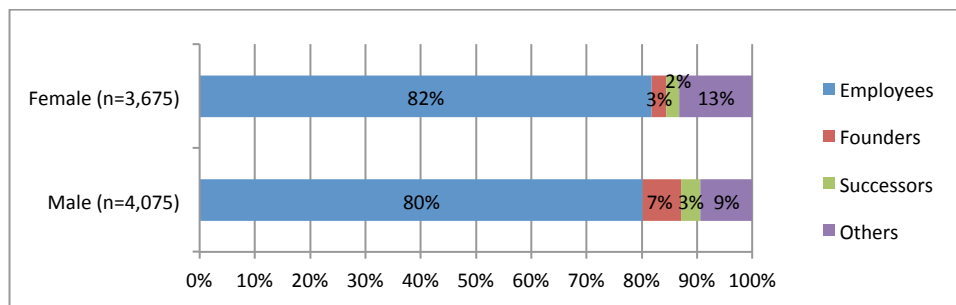
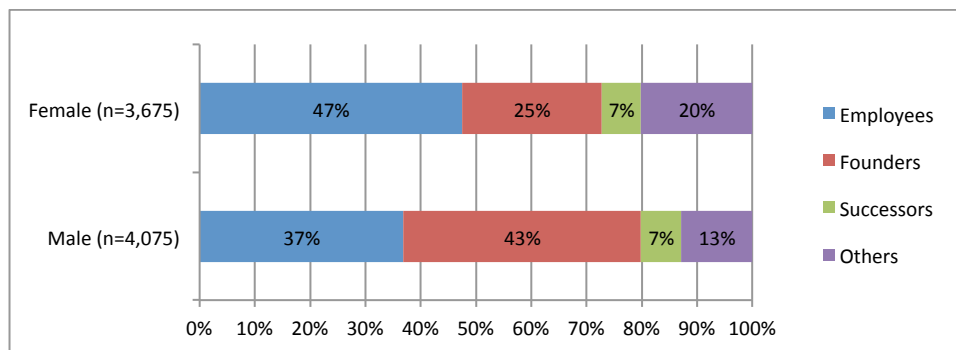


Figure 5.8: Career choice intentions 5 years after graduation by gender in the Italian sample<sup>31</sup>



## 5.3 Career Choice Intentions by Age

Career choice intention of students grouped by age (Figures 5.9 and 5.10) is consistent with entrepreneurship determinants literature that points out that nascent entrepreneurship rates are highest in the age category of 25 to 34 years old<sup>32</sup> (Grilo and Thurik, 2008). The rate of intentional founders is lower for students under 24 years both right after studies and 5 years after graduation. On the other hand the greater

<sup>29</sup> Significance test: Pearson's chi-square; level of significance  $p < 0.001$  for career path right after studies and for career path 5 years after studies

<sup>30</sup> Excluded not applicable responses

<sup>31</sup> Excluded not applicable responses

<sup>32</sup> Significance test: Pearson's chi-square; level of significance  $p < 0.005$  for career path right after studies and for career path 5 years after studies

preference of younger students to business takeover is in contrast with Block et al. (2013a). It is possible that older students have already discarded the opportunity to take over their parents' family firm.

Figure 5.9: Career choice intentions right after studies by age in the Italian sample<sup>33</sup>

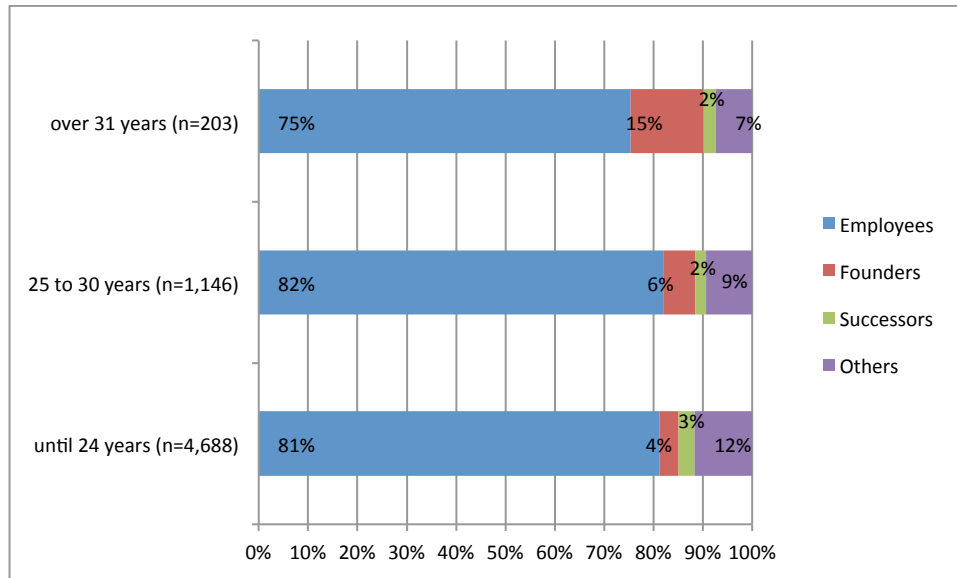
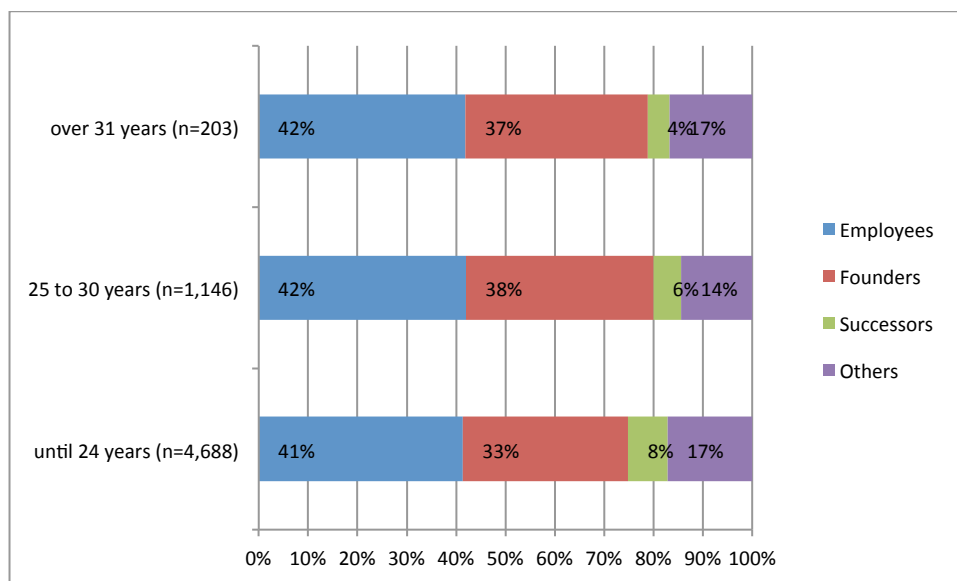


Figure 5.10: Career choice intentions 5 years after graduation by age in the Italian sample<sup>34</sup>



#### 5.4 Career choice intentions by field of study

Figures 5.11 and 5.12 illustrate that the career choice intentions directly after studies depend on the field of study<sup>35</sup>. In comparison with other fields of study, Social Sciences students are more uncertain about

<sup>33</sup> Excluded not applicable responses

<sup>34</sup> Excluded not applicable responses

<sup>35</sup> Significance test: Pearson's chi-square; level of significance  $p < 0.001$  for career path right after studies and for career path 5 years after studies

their future career path both right after studies and even more 5 years after graduation. This could be due to the lack of relevant jobs in this sector. The intention to be self-employed does not differ among sectors right after studies; however, in the long term, students of Natural Sciences are more inclined to be founders than students of Business and Economics and Social Sciences. On the other hand, students of Business and Economics exhibit more frequently to take over an existing business 5 years after graduation. The different propensity of students of Business and Economics and Natural Sciences could be explained by some of the individual factors that Block et al. (2013a) found to influence the entry mode into entrepreneurship. In particular, the higher management skills of business students could lead them to prefer takeover, whereas students of Natural Sciences could be more inclined to found a start-up in order to create new products applying their specific competences.

Figure 5.11: Career choice intentions right after studies by field of study in the Italian sample<sup>36</sup>

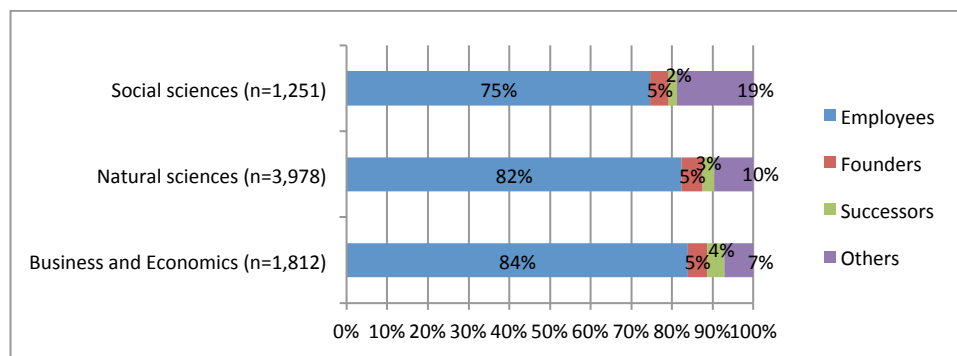
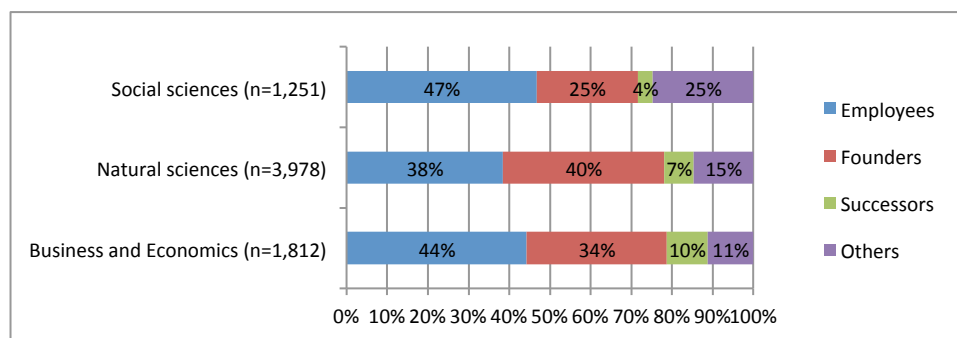


Figure 5.12: Career choice intentions five years after graduation by field of study in the Italian sample<sup>37</sup>



### 5.5 Career choice intentions by level of study and study performance

The level of education influences entrepreneurial intentions by two channels (Van der Sluis et al., 2008). First, the increased managerial ability should enhance the probability to succeed as entrepreneur and thus induce to be self-employed. The other channel generates an opposite, negative effect on entrepreneurship selection. Higher levels of education may generate better outside options (i.e. more lucrative wage employment under better working conditions) and thus decrease the likelihood of

<sup>36</sup> Excluded not applicable responses

<sup>37</sup> Excluded not applicable responses

entrepreneurship as the preferred choice. For this reason there are contrasting results in the literature regarding the effect of education on entrepreneurial intentions (Grilo and Thurik, 2008). In the Italian GUESSS sample the outside options channel seems to prevail since students that study at higher levels and report higher study performance are less inclined to be self-employed<sup>38</sup> (Figures 5.13 and 5.14). Given that level of education is positively related with entrepreneurial success (Van der Sluis et al., 2008), universities and policy makers should adopt measures that make the career as entrepreneur more attractive even for students that could have other interesting working opportunities.

Figure 5.13: Career choice intentions five years after graduation by level of studies in the Italian sample<sup>39</sup>

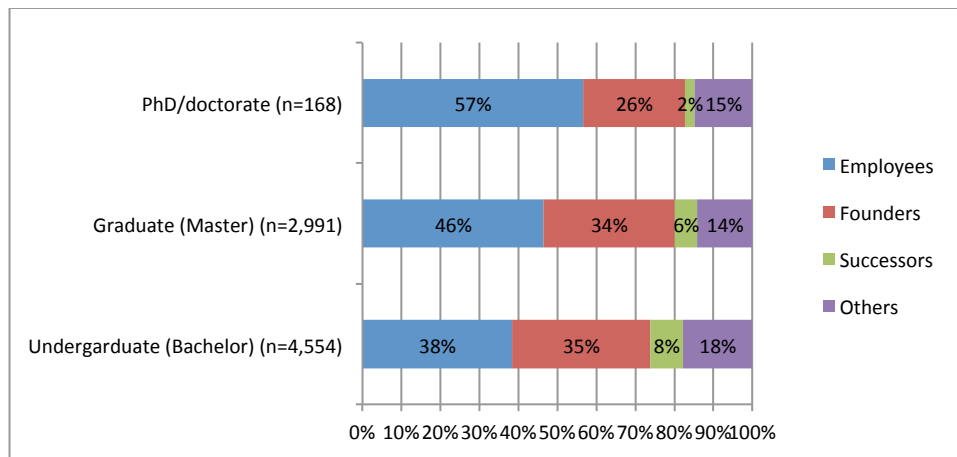
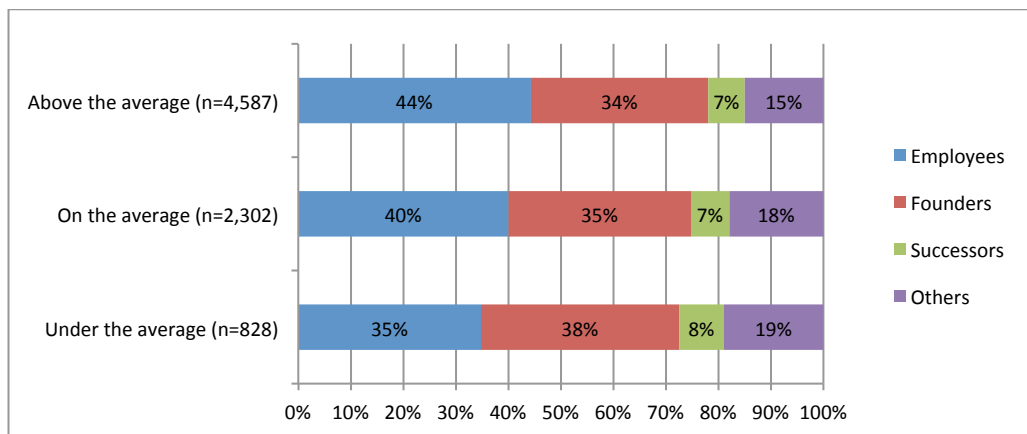


Figure 5.14: Career choice intentions five years after graduation by study performance in the Italian sample<sup>40</sup>



### 5.6 Motives for Choice of Future Career Path

Students were asked to assess the importance of the motives behind the choice of their future career path on a seven-point Likert scale. The most popular motive for the Italian students concerning their choice of their future career paths is *have a stimulating work* (6.5) followed by *realize own dreams* (6.3). While

<sup>38</sup> Significance test Pearson’s chi-square; level of significance  $p < 0.001$  for career path 5 years after studies by level of studies and study performance

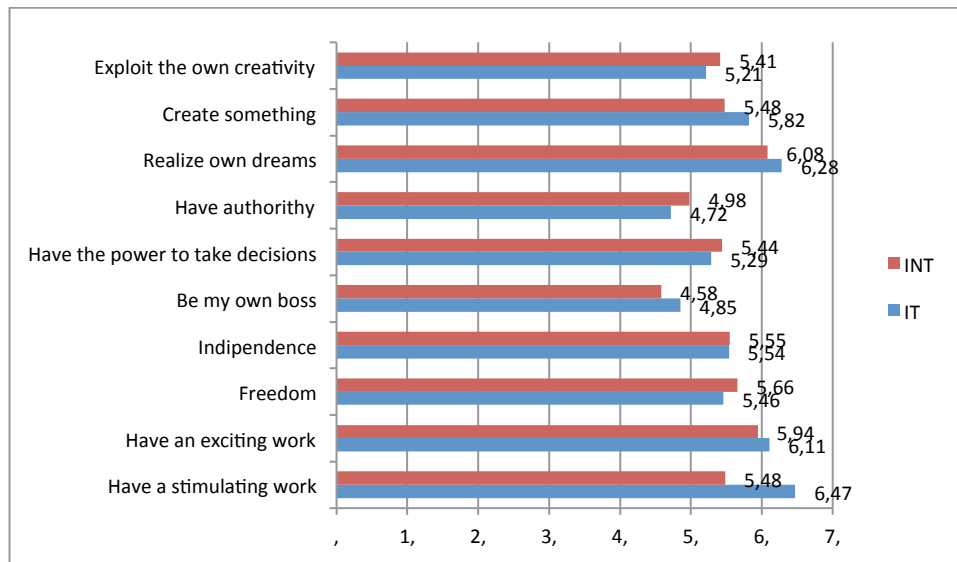
<sup>39</sup> Excluded not applicable responses

<sup>40</sup> Excluded not applicable responses



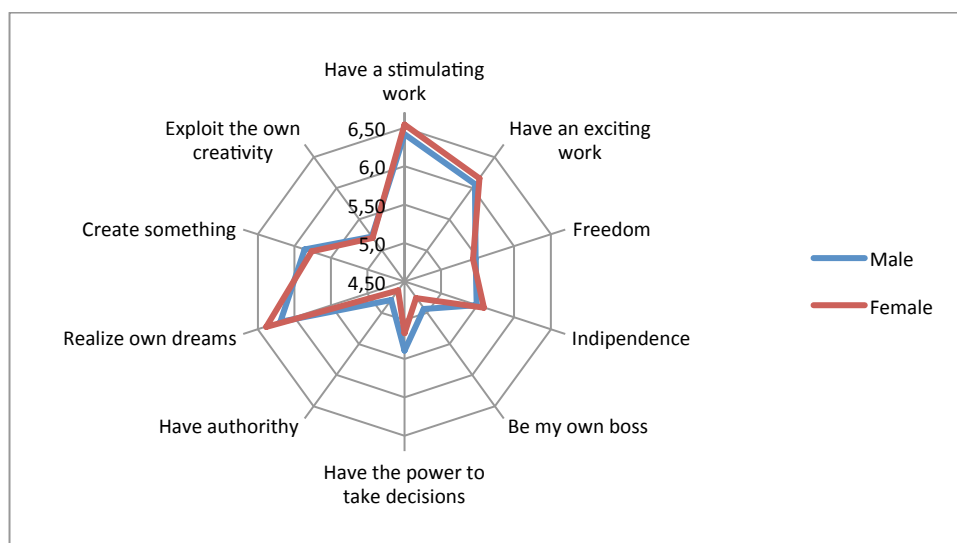
these motives could be behind the choice of both employment or self-employment, the non-pecuniary motives most commonly associated with self-employment (Burke et al., 2002) such as *exploit creativity* (5.2), *have authority* (4.7) and *be my own boss* (4.9) receive lower ranking (Figure 5.15). The motives of the Italian GUESSS sample are in quite in line with the international findings, except for the greater importance assigned to *have a stimulating work* by Italian respondents.

Figure 5.15: Motives for choice of future career path in the Italian and international GUESSS samples



For males the motives associated with power and authority are more important drivers for the choice of their career path. On the contrary female respondents reported significantly higher rankings for the emotional and self-realization aspects of a job<sup>41</sup> (Figure 5.16).

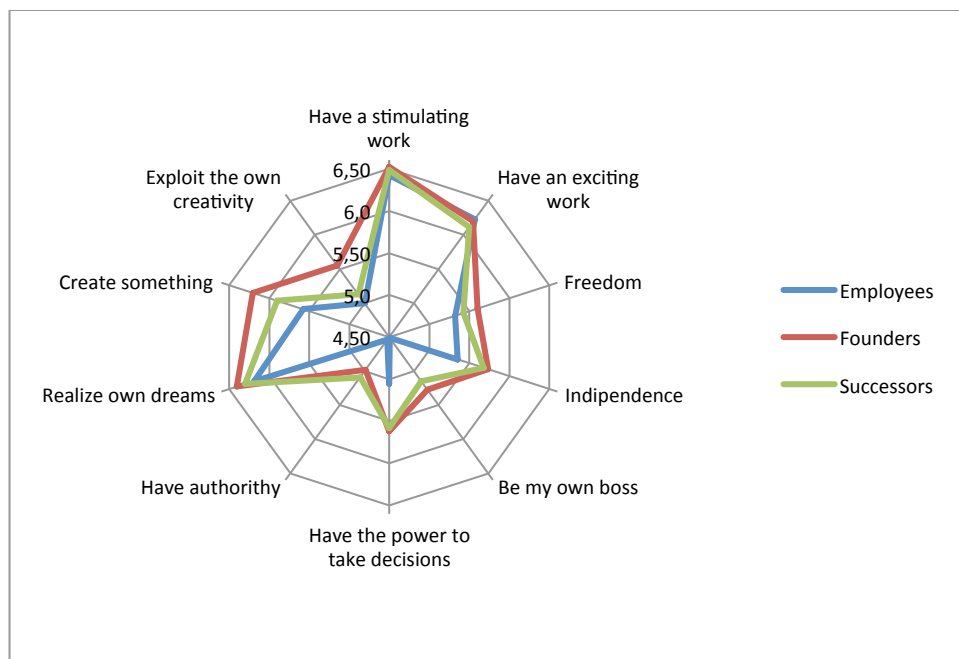
Figure 5.16: Motives for choice of future career path by gender in the Italian sample



<sup>41</sup> Significance test: univariate ANOVA or Fstar, if Barlett's test did not reject null hypothesis of equal variances; level of significance  $p < 0.0005$  for all items except for *Freedom* and *Exploit the own creativity* ( $p > 0.5$ )

Not surprisingly the importance assigned to motives differs significantly by choice of future career path<sup>42</sup> (Figure 5.17). It seems that the freedom motive has different strength by career choice intentions (employee intention < succession intention < founding intention), with founding career chosen at high levels in line with Zellweger et al.(2011). Moreover, consistently with Block et al. (2013a), founders and successors are driven by different motivations. In particular for founders it is more important to be creative and innovative (Zellweger et al., 2011).

Figure 5.17: Motives for choice of future career path by career path five years after graduation in the Italian sample



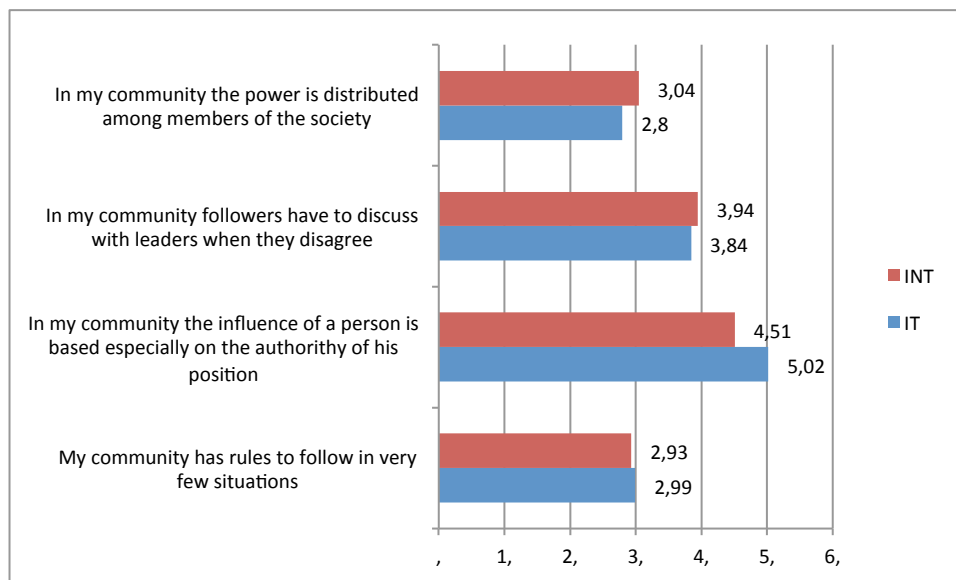
<sup>42</sup> Significance test: univariate ANOVA or Fstar, if Barlett's test did not reject null hypothesis of equal variances; level of significance  $p < 0.0002$  for all motives

## 6. STUDENTS AND ENTREPRENEURSHIP

### 6.1 Social Background

Cultural values can affect entrepreneurial intentions. In particular hierarchy and conservatism has been found to facilitate business creation (De Clercq et al., 2013). Hierarchy refers to the desire among community members to preserve existing power structures. A strongly hierarchical culture ensures social responsible behavior by legitimating an unequal distribution of power. On the opposite, in an egalitarian culture societal members recognize one another as moral equals and social responsible behavior is guaranteed by voluntary commitment to promoting the welfare of others (Schwartz, 1999). Students were asked to assess the level of hierarchy and egalitarianism of their community on a 4-item 7-points Likert scale, in which the two extremes of the scale indicate a fully hierarchical or egalitarian culture. Answers indicate that students perceive their respective communities more hierarchical than egalitarian in three out of four items in line with the international sample (Figure 6.1). Still the level of hierarchy seems to be slightly higher in the Italian society. Grouping students by career attitudes five years after graduation, the only significant<sup>43</sup> difference of perceived level of hierarchy can be found for the item *In my community the power is distributed among members of the society*. Successors perceive existing power structures as less stable than other respondents. This is in line with their intention to take over an existing business, which can be interpreted as a way to challenge existing distribution of power.

Figure 6.1: Perceived level of hierarchy in the Italian and international GUESSS samples

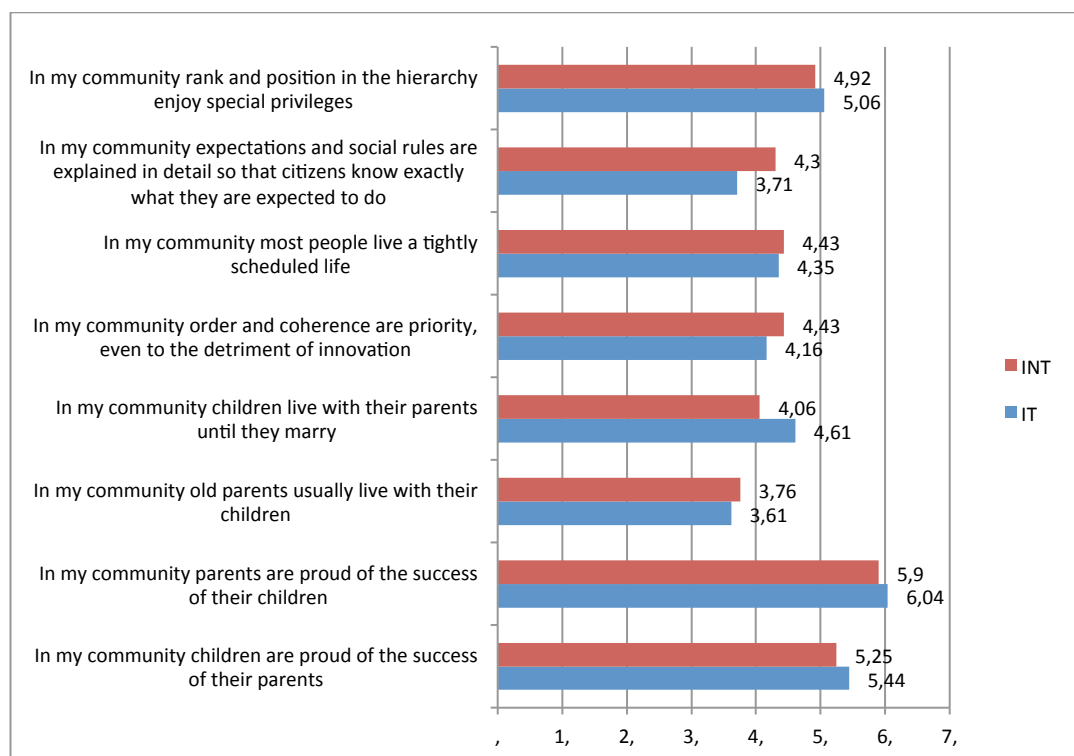


The level of conservatism of a community describes the nature of the relation between the individual and the group (Schwarz, 1999). In a conservative culture individuals tend to pursue “in-group” goals and to be suspicious of actions that could harm the status quo. Autonomy is the opposite pole of conservatism and describes cultures in which the person is autonomous and is encouraged to express his

<sup>43</sup> Significance test: univariate ANOVA; level of significance  $p < 0.05$ ; equal variance not rejected by Barlett’s test

uniqueness and to achieve personal success. Respondents evaluated the level of conservatism of their respective communities on a 7-points Likert scale composed by 4 items for each pole of the cultural dimension. From the answers it seems that conservatism and autonomy poles balance each other (Figure 6.2). Three out of four conservatism items indicate a more conservative culture, whereas three out of four autonomy items indicate a more autonomous culture. Compared to the international sample in the Italian culture the success of relatives is more encouraged, but children live with their parents for longer time. Moreover for three out of four items the Italian society seems to be less conservative. It is interesting to compare the differences in perceptions among students grouped by career choice intentions. In particular intentional founders perceived their respective communities as slightly more<sup>44</sup> conservative compared to other students. This perception can be explained by the fact that they are more sensitive to the need of challenging the status quo in line with the definition of entrepreneurs as “agents of change” (OECD, 1998, p. 11). Responses to the autonomy items indicate that founders live in communities with greater levels of autonomy<sup>45</sup> in line with De Clercq et al. (2013) who suggested that a society in which members are encouraged to pursue personal success is more favorable to entrepreneurial activities.

Figure 6.2: Perceived level of conservatism and autonomy in the Italian and international GUESSS samples



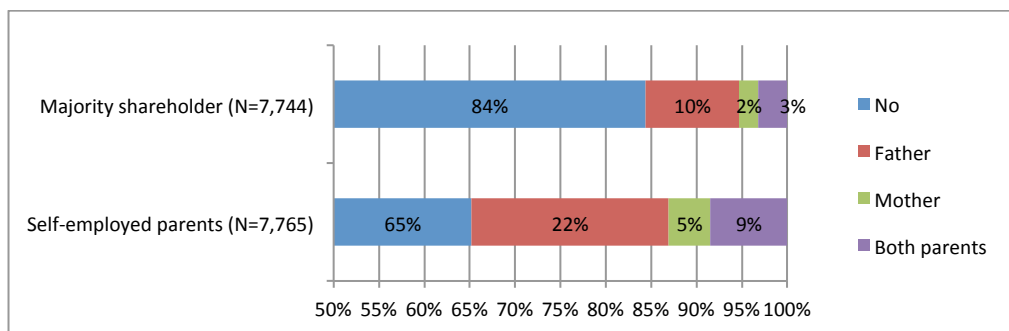
<sup>44</sup> Significance test: univariate ANOVA or Fstar, if Barlett's test did not reject null hypothesis of equal variances; level of significance  $p < 0.005$  for all conservatism items

<sup>45</sup> Significance test: univariate ANOVA or Fstar, if Barlett's test did not reject null hypothesis of equal variances; level of significance  $p < 0.05$  for all conservatism items

## 6.2 Family Background

The extent to which important referents such as parents and close relatives perform a behavior is one of the factors behind intent (Ajzen, 2002). Participants to the survey reported whether they were familiar with self-employed people and/or majority shareholders. In the Italian GUESSS sample, more than a third of the students have at least one parent who is currently self-employed and almost 15% of respondents have at least one parent who has the majority ownership in a company. Figure 6.3 shows that, of these students, most have a self-employed father. In an international comparison the Italian GUESSS sample presents an higher fraction of students with an entrepreneurial family background. 75% of the international respondents do not have a self-employed parent (against the 65% of Italian participants to the survey). This indicates the centrality of the role families could play to promoting entrepreneurship among Italian students. Still, the fraction of international students that has at least one major shareholder among parents (13%) is quite similar to the Italian sample (16%). In addition international respondents exhibit more self-employed and/or majority shareholders among friends (INT=47%; IT=41%) and close relatives (INT=41%, IT=36%).

Figure 6.3: Family background in the Italian sample<sup>46</sup>



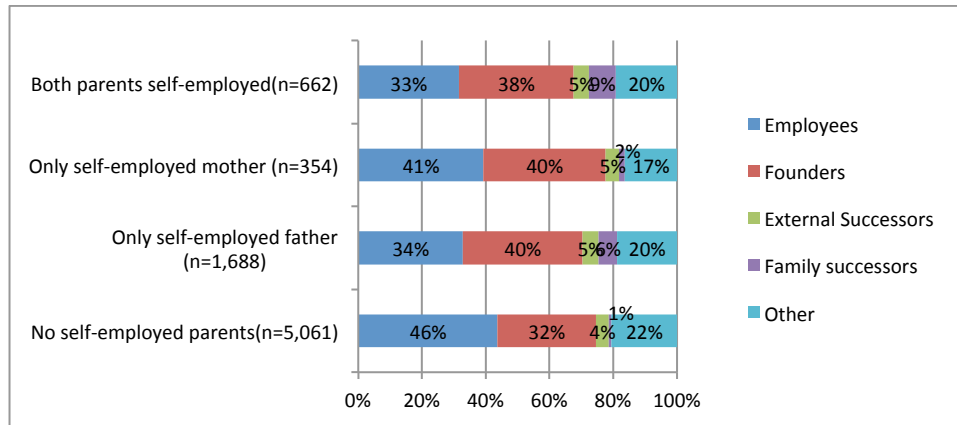
Career choice intentions five years after graduation change significantly<sup>47</sup> among students with different family backgrounds (Figure 6.4). In particular respondents without self-employed parents are less inclined to be founders. This is consistent with the stylized fact that the decision to become an entrepreneur is correlated positively with having parents who are or were entrepreneurs (Bosma et al., 2012) due to the emotional, financial, managerial and practical support received (Santarelli and Tran, 2013). Responses show also that students with self-employed father are more likely to be successors of parents' family firm, even more if also the mother is self-employed. On the other hand having a self-employed mother does not seem to influence significantly the intention to take over the family firm. This figure is in line with Block et al. (2013a), who analyzed the entry mode into entrepreneurship on an international dataset. Finally, the external successors rate does not vary by family background. It seems that the increased probability to be successors due to the family background impacts only to the intention to taking over the existing family firm. It is documented that individuals born into a family business already have a high probability of taking over that

<sup>46</sup> Excluded not applicable responses

<sup>47</sup> Significance test: Pearson's chi-square; level of significance  $p < 0.0005$

family business because within-family succession is the preferred option for many family business owners (Block et al., 2013a).

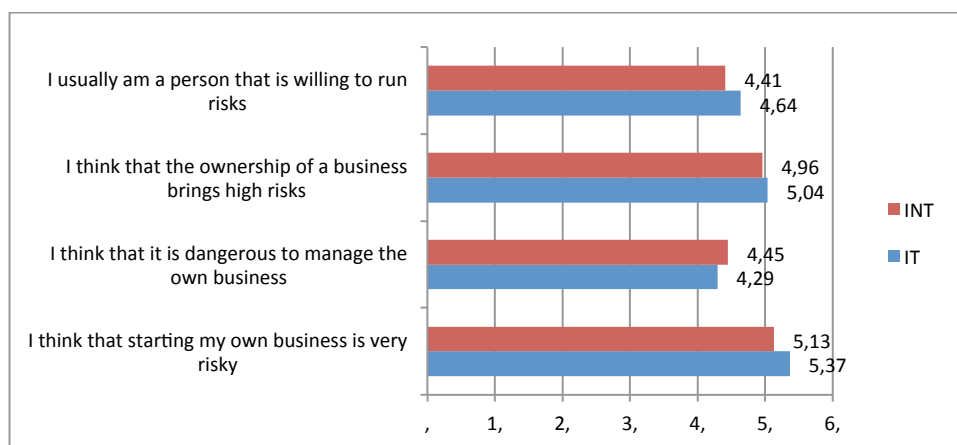
Figure 6.4: Career choice intentions five years after graduation by family background in the Italian sample<sup>48</sup>



### 6.3 Attitudes toward risk

The role of entrepreneur is a risk bearer (Knight, 1921) underlines the importance of risk attitude in the occupational choice (Grilo and Irigoyen, 2006). Students<sup>49</sup> were asked to assess their risk aversion and to evaluate their perception of the risks associated with self-employment on a seven-point Likert scale (Figure 6.5). It seems that Italian students are more willing to run risk, but they feel starting and owning a company as more dangerous.

Figure 6.5: Risk attitudes in the Italian and international GUESSS samples



According to the answers starting the business is perceived as the riskiest aspect of self-employment with no significant gender differences (Figure 6.6). However significant<sup>50</sup> differences can be found

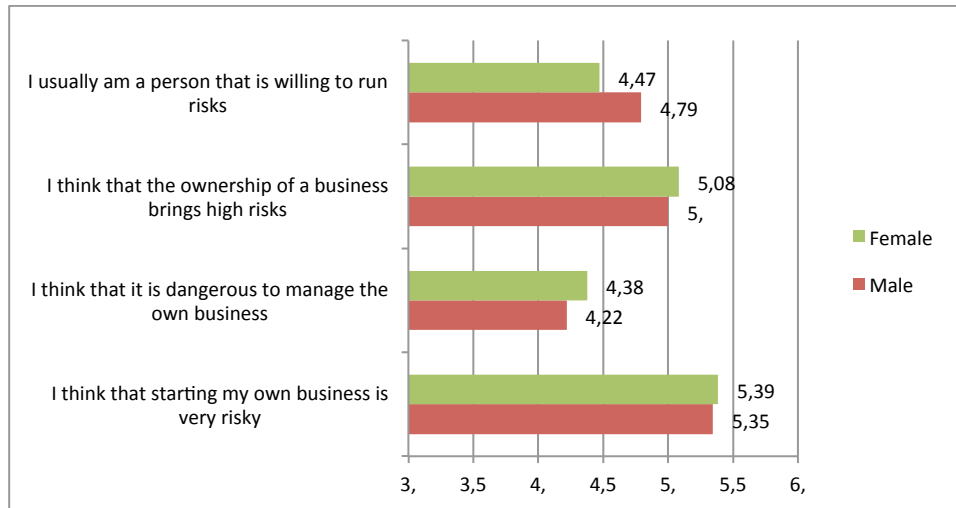
<sup>48</sup> Excluded not applicable responses

<sup>49</sup> Active and serial founders (i.e. already self-employed students, n=272 did not answer to this question

<sup>50</sup> Significance test: Significance test: univariate ANOVA or Fstar, if Barlett's test did not reject null hypothesis of equal variances; level of significance  $p < 0.05$  for all items except for *I think that starting my own business is very risky* ( $p > 0.2$ )

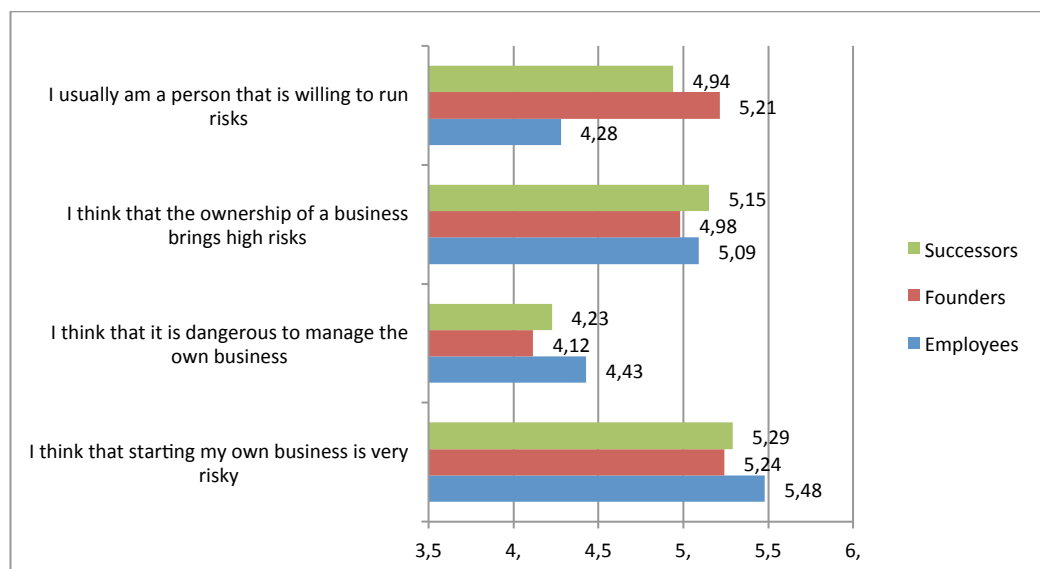
comparing risk propensity of males and females. In particular males are more willing to run risks and have less fear to fail managing a business in line with Minniti and Nardone (2007).

Figure 6.6: Risk propensity by gender in the Italian sample



As expected, intentional founders are less risk averse than aspiring successors and employees<sup>51</sup> (Figure 6.7), suggesting that starting a firm from scratch requires more willingness to run risks and less fear to fail (Block et al., 2013a). Moreover successors are the most aware of the risks linked to the ownership of a business.

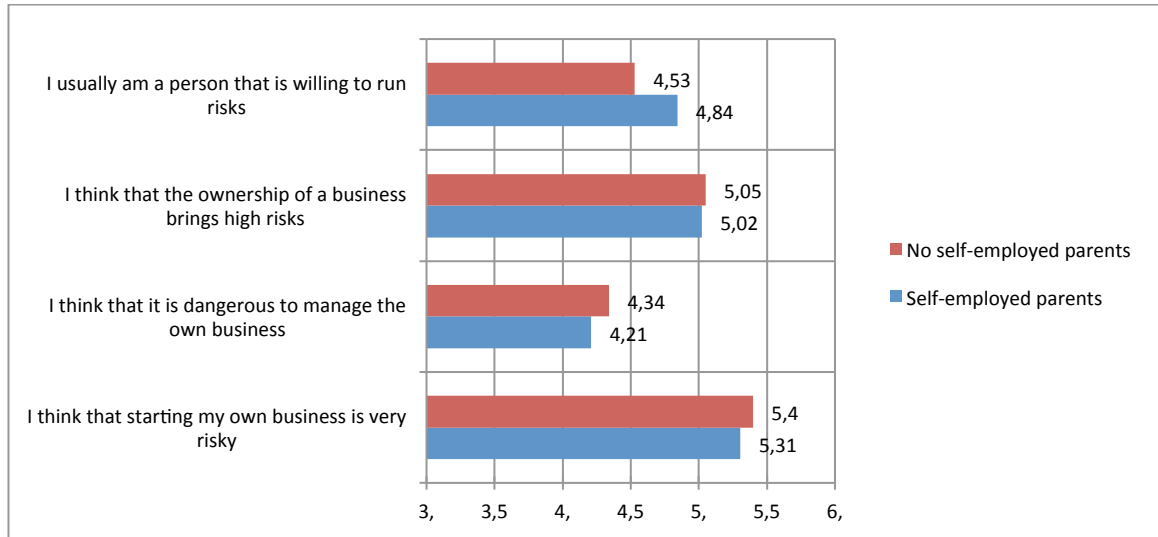
Figure 6.7: Risk propensity by career path five years after graduation in the Italian sample



<sup>51</sup> Significance test: univariate ANOVA or Fstar, if Barlett's test did not reject null hypothesis of equal variances; level of significance  $p < 0.005$  for all items

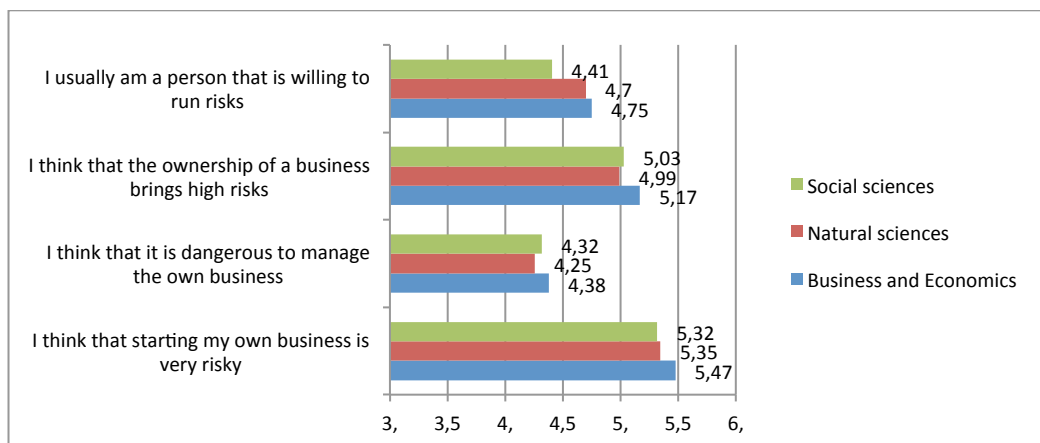
Having at least one self-employed parent seems to reduce risk aversion and reduce the fear of managing a business<sup>52</sup> (Figure 6.8). This is in line with the argument that having entrepreneurs in the family raises the belief of being able to face obstacles linked to the entrepreneurial path (Santarelli and Tran, 2013).

Figure 6.8: Risk propensity by family background in the Italian sample



Students of Business and Economics perceive entrepreneurial activities more risky than respondents of other fields<sup>53</sup> (Figure 6.9). Still they are more willing to run risks, suggesting that having more knowledge of business could lead them to a more aware choice to be engaged in entrepreneurial activities.

Figure 6.9: Risk propensity by field of study in the Italian sample



<sup>52</sup> Significance test: univariate ANOVA or Fstar, if Barlett's test did not reject null hypothesis of equal variances; level of significance  $p < 0.01$  for all items except for *I think that the ownership of a business brings high risks* ( $p > 0.4$ )

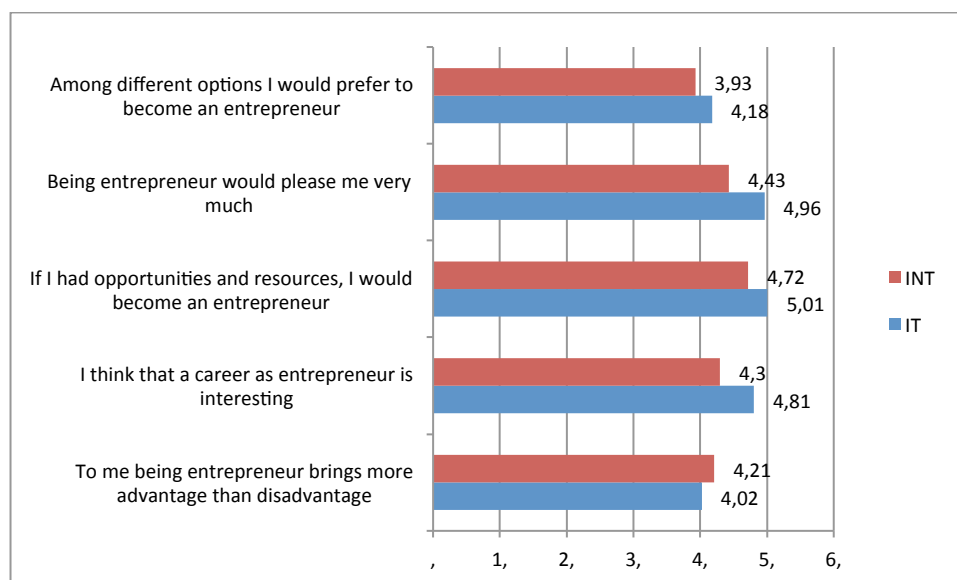
<sup>53</sup> Significance test: univariate ANOVA or Fstar, if Barlett's test did not reject null hypothesis of equal variances; level of significance  $p < 0.05$  for all items



### 6.4 Attitudes toward Founding a Business

The first construct used to predict intention in the theory of planned behavior is "attitudes toward behavior". It measures the degree to which a person thinks positively about performing the behavior of found a business. The GUESSS survey<sup>54</sup> utilized the 5-item, 7-point Likert-type scale from Linan (2009). Figure 6.10 shows that the item that received highest rating is *If I had opportunities, I would become entrepreneur* (5.01), whereas the lowest rating was assigned to *To me being entrepreneur brings more advantage than disadvantage* (4.02). This suggests that even if students rate the career as founder interesting, they are limited by fear of not being successful. In an international comparison Italian students seem to be more interested to found a business (Figure 6.10). Again this suggests that there is a strong entrepreneurial spirit among Italian students that has to be nurtured by skills and competences taught by universities, as already seen in analyzing career choice intentions in Section 5.1 and willingness to run risk in Section 6.3.

Figure 6.10: Attitudes towards founding a business in the Italian and international GUESSS samples



The aversion against entrepreneurial career is more important for females than males<sup>55</sup>, in line with Minniti and Nardone (2007), who claim that perceptual variables explain most of the variance of entrepreneurial intentions across genders (Figure 6.11).

<sup>54</sup> Active and serial founders (i.e. already self-employed students, n=272 did not answer to this question

<sup>55</sup> Significance test: univariate ANOVA or Fstar, if Barlett's test did not reject null hypothesis of equal variances; level of significance  $p < 0.0001$  for all items

Figure 6.11: Attitudes towards founding a business by gender in the Italian sample

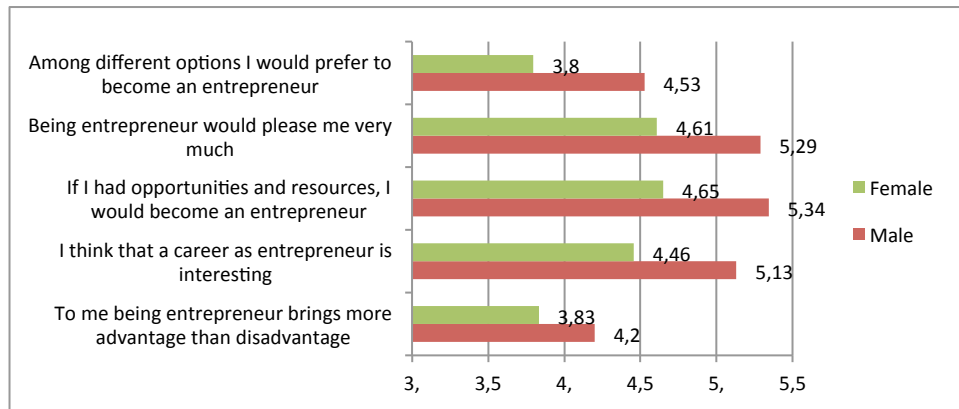
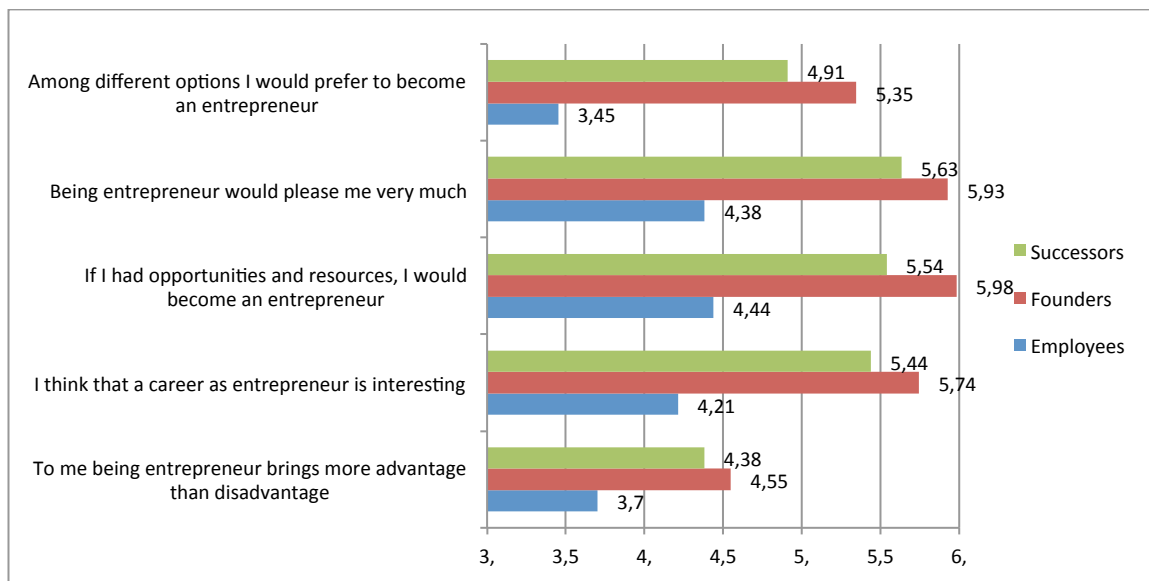


Figure 6.12 provides is line with the expectations that attitudes toward behavior are antecedent for intention<sup>56</sup>: aspiring founders reported more positive attitude compared to intentional employees and successors.

Figure 6.12: Attitudes toward founding a business behavior by career path five years after graduation in the Italian sample



Peterman and Kennedy (2003) point out that attitudes toward entrepreneurship can be influenced by exposure to role models. In particular family background can be a source of positive role models (Bosma et al., 2012). Hence the greater<sup>57</sup> attitudes of students with at least one self-employed parent can be interpreted as the presence of a parental role model (Figure 6.13).

<sup>56</sup> Significance test: univariate ANOVA or Fstar, if Barlett’s test did not reject null hypothesis of equal variances; level of significance  $p < 0.0001$  for all items

<sup>57</sup> Significance test: univariate ANOVA or Fstar, if Barlett’s test did not reject null hypothesis of equal variances; level of significance  $p < 0.0001$  for all items

Figure 6.13: Attitudes toward founding a business by family background in the Italian sample

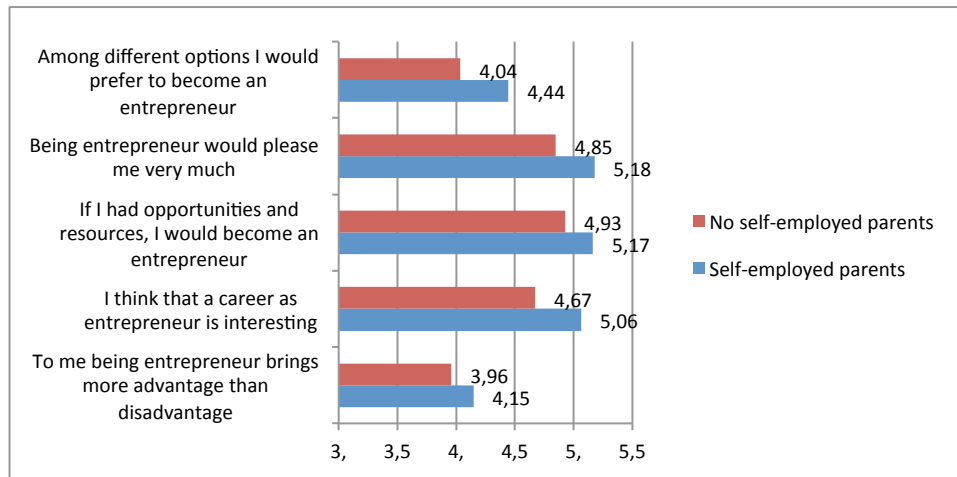
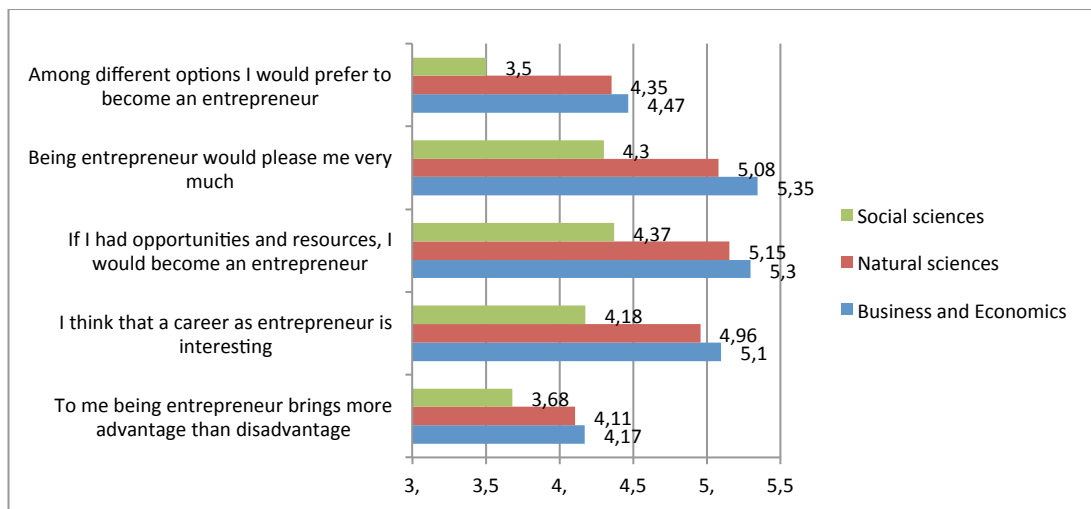


Figure 6.14 shows that students of Business and Economics reported higher ratings for all items of attitudes toward behavior, followed immediately by students of Natural Sciences<sup>58</sup>. This suggests the more favorable climate to entrepreneurship found in the business and economics sector, as well in Natural Sciences field, is reflected in a greater inclination to self-employment in line with the role of education as promoter of entrepreneurial awareness (Bae et al., 2014).

Figure 6.14: Attitudes toward founding a business by field of study in the Italian sample



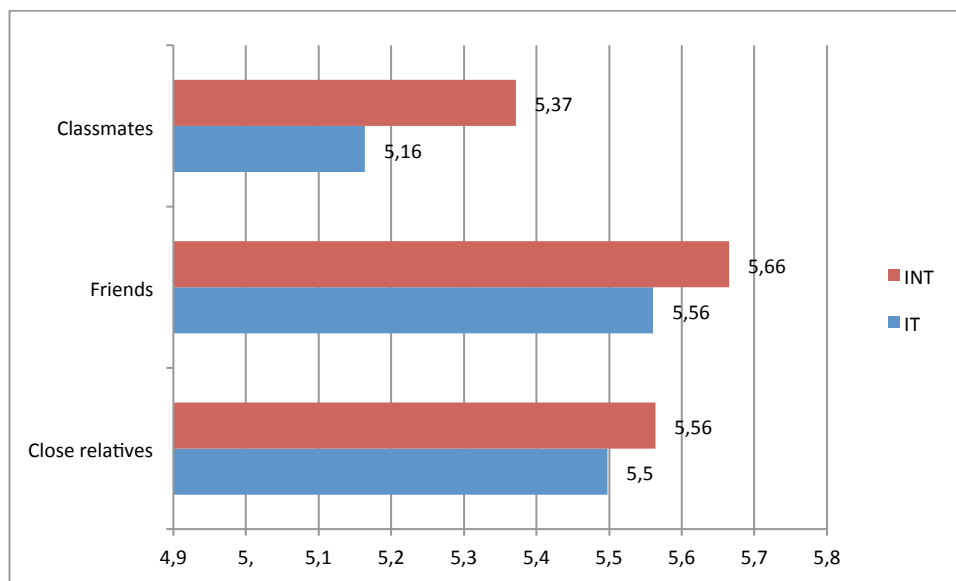
### 6.5 Subjective Norms

The second construct used to predict intention in the theory of planned behavior is "subjective norms" and refers to the social and cultural pressure to perform a specific behavior. Santarelli and Tran (2013) point out that relation with family, relatives and friends play an important role in supporting the decision to start a career an entrepreneur. However Kautonen et al. (2013) argue that norms set by others

<sup>58</sup> Significance test: univariate ANOVA or Fstar, if Barlett's test did not reject null hypothesis of equal variances; level of significance  $p < 0.0001$  for all items

may be less relevant for students than for the wider adult population. Ajzen (2002) suggests to use two groups of items in order to measure subjective norms. The first one is descriptive and captures whether important referents perform the behavior in question. Section 5.1 reported students' answers related to the entrepreneurial behavior performed by family and friends. The second component of subjective norms has an injunctive quality and describes expectations of family, friends and colleagues regarding the behavior. In order to measure this component of social norms the questionnaire uses a three-item scale specifying thoughts of family, friends and colleague regarding founding a business, following Linan (2009)<sup>59</sup>. In an international comparison the community frequented by Italian students is slightly less favorable to a career as founder (Figure 6.15). Classmates are the referent group which encourages less to be engaged into entrepreneurial activity (5.16) compared to friends (5.56) and close relatives (5.5). This may impair the role of universities as promoters of entrepreneurial behavior, since socialization with supporters of entrepreneurship is one of the channels through which education can spur self-employment (Peterman and Kennedy, 2003).

Figure 6.15: Subjective norms in the Italian and international GUESSS samples

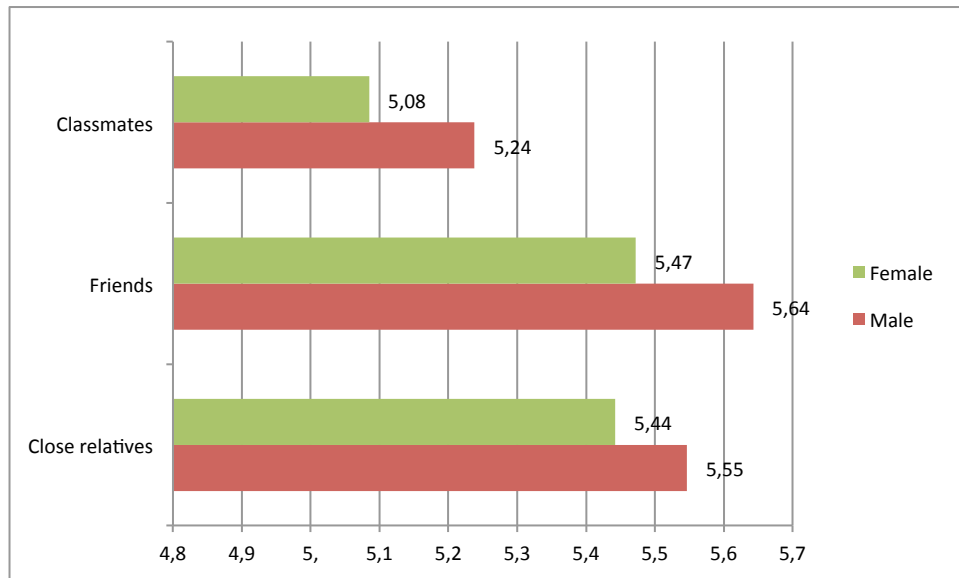


Significant<sup>60</sup> differences among genders indicate that females are less encouraged by their reference groups to start a career as entrepreneur (Figure 6.16). This suggest that some cultural change is still needed in order to foster female entrepreneurship.

<sup>59</sup> Active and serial founders (i.e. already self-employed students, n=272) did not answer to this question

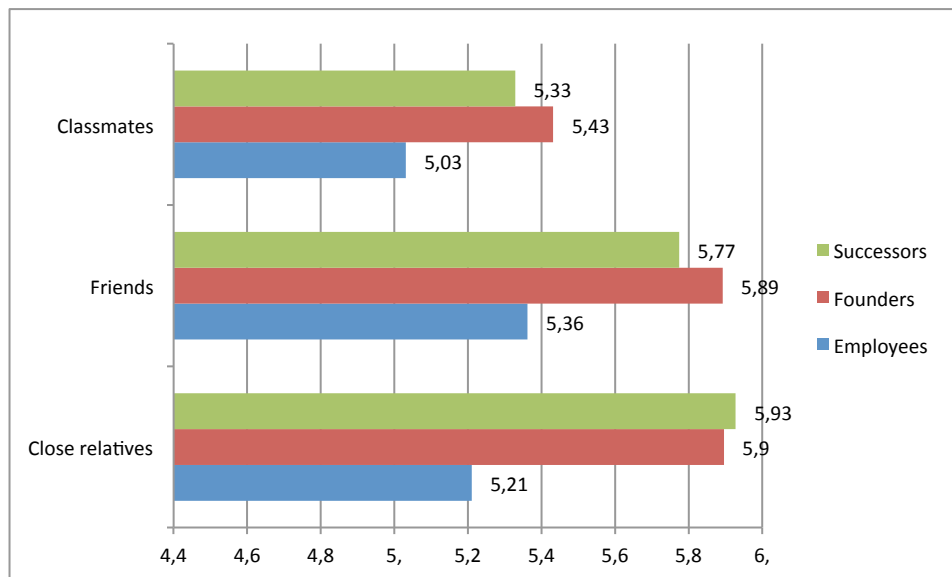
<sup>60</sup> Significance test: univariate ANOVA; level of significance  $p < 0.0001$  for all items; equal variances not rejected by Barlett's test

Figure 6.16: Subjective norms by gender in the Italian sample



As predicted by Theory of Planned Behavior aspirant entrepreneurs have subjective norms more<sup>61</sup> favorable toward entrepreneurship (Figure 6.17). Still, literature suggests that that norms set by others may be less relevant for students than for the wider adult population (Kautonen et al., 2013). It is worth to note that close relative of successors have most positive thoughts about founding. This may due to the desire of self-employed parents that their children follow their example.

Figure 6.17: Subjective norms by career path five years after graduation in the Italian sample



<sup>61</sup> Significance test: univariate ANOVA or Fstar, if Barlett's test did not reject null hypothesis of equal variances; level of significance  $p < 0.0001$  for all items

A specific analysis shows that self-employed parents are more<sup>62</sup> favorable to a career as entrepreneur of their children in line with the emotional support provided by the presence of entrepreneurs in the family (Santarelli and Tran, 2013). In particular the positive effect on normative belief is greater if both parents are self-employed. Further, it seems that the self-employment of father is more relevant than the working situation of the mother in raising the social pressure of relatives toward entrepreneurial career in line with Block et al. (2013a).

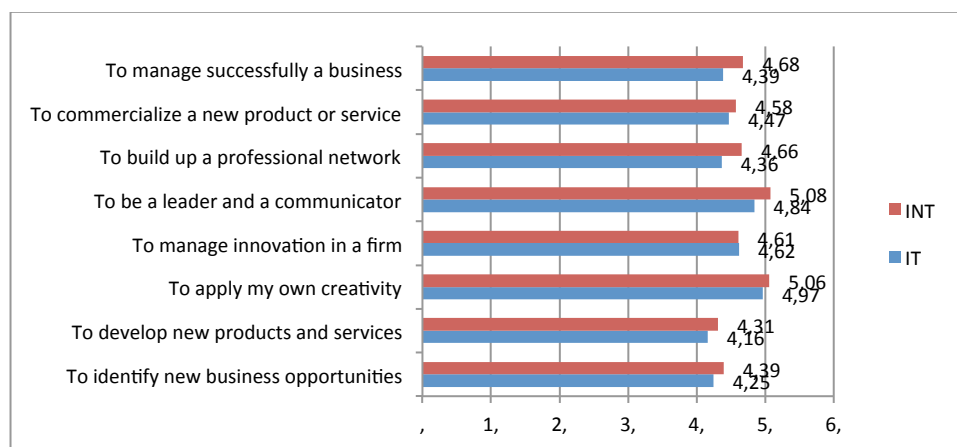
Moreover students of Business and Economics come from a background that is more<sup>63</sup> favorable to entrepreneurship, followed by respondents from Natural Sciences. It could be possible that the norms imposed by referents play a role for the choice of field of study.

### 6.6 Perceived Behavioral Control

The third construct used to predict intention in the Theory of Planned Behavior is "perceived behavioral control". It measures the respondent's belief in his capacity to perform the behavior and affects positively both intent and likelihood to perform the behavior (Ajzen, 1991). Factor analysis of perceived behavioral control has led to distinct components of self-efficacy (i.e. confidence of performing specific tasks required to perform the behavior) and controllability (i.e. personal control over behavior, appraisal of whether the behavior is completely up to the actor; Ajzen, 2002).

In order to capture respondents' self-efficacy participants<sup>64</sup> ranked their own levels of entrepreneurial abilities in a scale that goes from 1 to 7, with 1 meaning that they do not feel confident in a specific skill, and 7 meaning that they feel completely confident. Students are more confident about their ability to apply their creativity, but were more uncertain about the identifying new business opportunities and develop new products or services (Figure 6.18). In an international comparison the self-efficacy of Italian respondents is lower, but this could be due to the lower fraction of Business and Economic students in the Italian sample.

Figure 6.18: Self-efficacy in the Italian and international GUESSS samples



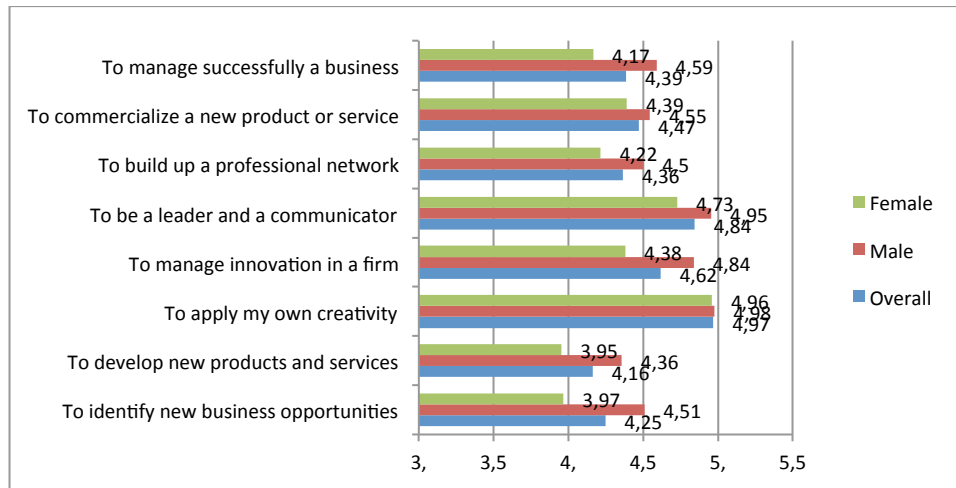
<sup>62</sup> Significance test: Fstar and wtest; level of significance  $p < 0.0001$

<sup>63</sup> Significance test: univariate ANOVA; level of significance  $p < 0.0001$  for all items; equal variances not rejected by Barlett's test

<sup>64</sup> Active and serial founders (i.e. already self-employed students,  $n=272$  did not answer to this question

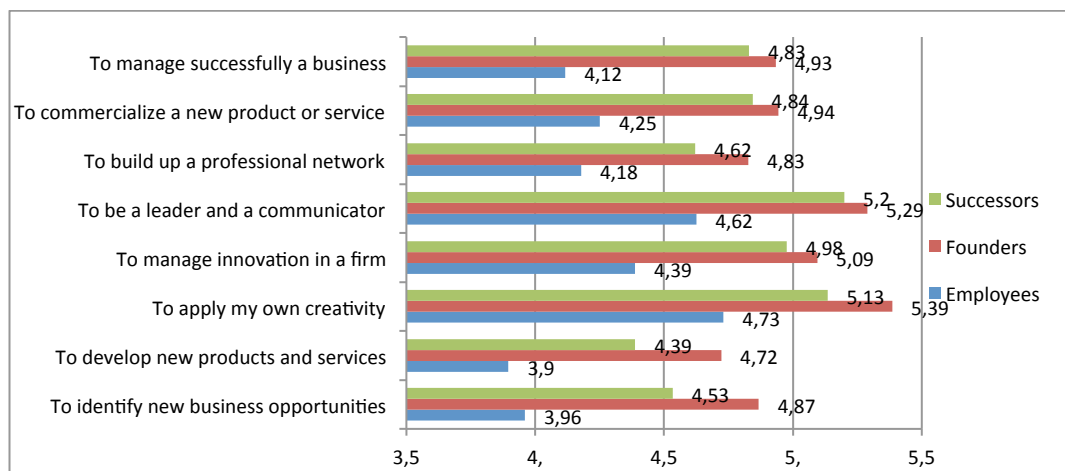
Self-confidence significantly differs by gender except for the item *To apply my own creativity* (Figure 6.19). Males report higher assessment of their entrepreneurial skills<sup>65</sup>. The higher self-confidence of males is in line with previous literature and may partially explain why males are more likely to be engaged into entrepreneurial activities (Minniti and Nardone, 2007).

Figure 6.19: Self-efficacy by gender in the Italian sample



As predictable, students that aspired to be self-employed reported significantly<sup>66</sup> higher entrepreneurial competences (Figure 6.20). Moreover successors are less confident than intentional founders, suggesting that starting a business from scratch requires greater entrepreneurial skills (Block et al., 2013a). Overall this figure is in line with the pecking order of career preferences (Zellweger et al., 2011), with founding career chosen at high levels of self-efficacy, successor career at medium level and employee career at the lowest level.

Figure 6.20: Self-efficacy by career path five years after graduation in the Italian sample

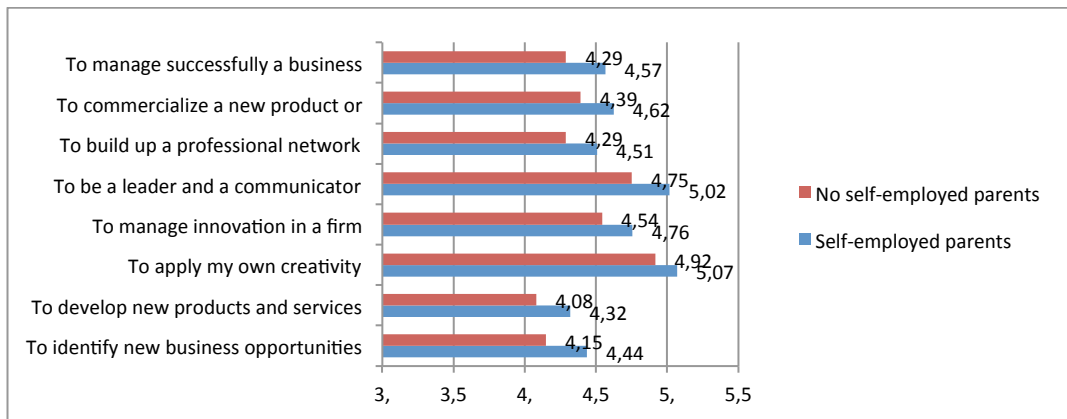


<sup>65</sup> Significance test: univariate ANOVA or Fstar, if Barlett's test did not reject null hypothesis of equal variances; level of significance  $p < 0.0001$  for all items except for *To apply my own creativity* ( $p > 0.6$ )

<sup>66</sup> Significance test: Fstar; level of significance  $p < 0.0001$  for all items; equal variance rejected by Barlett's test

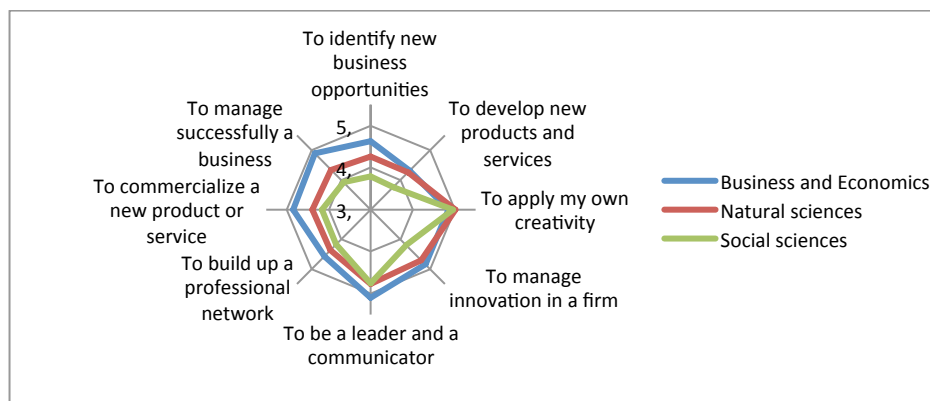
The actual possibilities for learning on the job provided by a family business is one of the explanation for the observed association between the choice for entrepreneurship of parents and their children (Fairlie and Robb, 2007). Hence it is foreseeable that students who have at least one self-employed parent reported higher<sup>67</sup> entrepreneurial skills (Figure 6.21). This is also consistent with a parental role model that is expected to increase self-efficacy (Bosma et al., 2011).

Figure 6.21: Self-efficacy by family background in the Italian sample



Not surprisingly students of Business and Economics reported greater<sup>68</sup> confidence about their ability to perform entrepreneurial tasks related to the management of firm activities and to discovery of business opportunities (Figure 6.22). Natural Sciences students performed very well in all activities related to innovation. Respondents from Social Sciences were more confident about their ability to be leader and communicator and to be creative, suggesting that their studies may positively affect some of the characteristics required to be a successful entrepreneur. The complementarity of entrepreneurial skills among students from different study backgrounds indicate that universities should foster the formation of heterogeneous founding teams through an increased collaboration among faculties.

Figure 6.22: Self-efficacy by field of study in the Italian sample



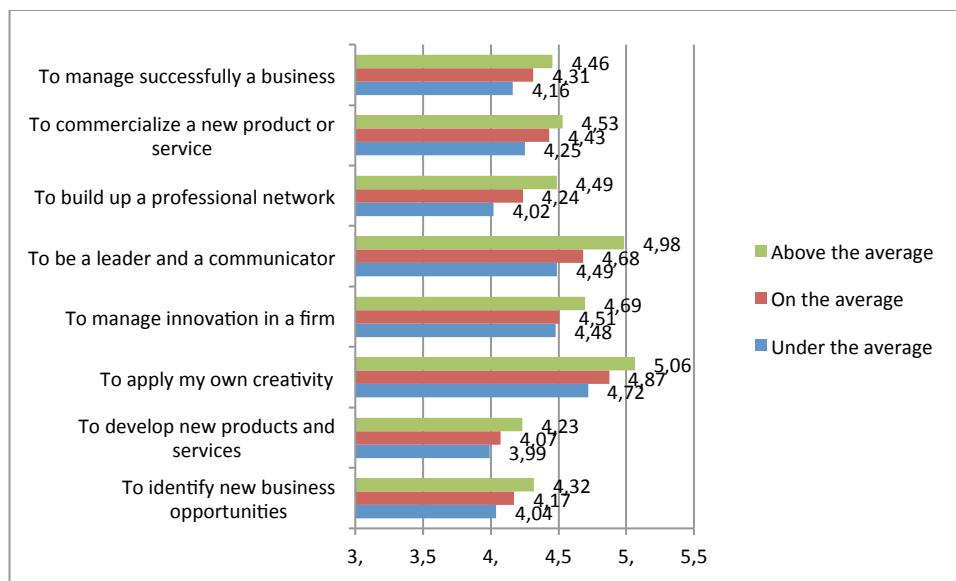
<sup>67</sup> Significance test: Fstar; level of significance  $p < 0.0001$  for all items; equal variance rejected by Barlett's test

<sup>68</sup> Significance test: univariate ANOVA or Fstar, if Barlett's test did not reject null hypothesis of equal variances; level of significance  $p < 0.001$  for all items



As expected, students that reported higher study performances were also more confident about their entrepreneurial skills<sup>69</sup> (Figure 6.23). However these students were less represented among intentional entrepreneurs. This is somehow disappointing, since task-related human capital is positively related to entrepreneurial success (Unger et al., 2011). Universities should encourage brilliant students to start a business if they can contribute to economic growth thanks to their superior entrepreneurial competences. Of course one must be aware of the possible bias due to the self-assessment of human capital. Self-confidence about own study-performance as well for entrepreneurial skills does not necessarily reflect reality.

Figure 6.23: Self-efficacy by study performance

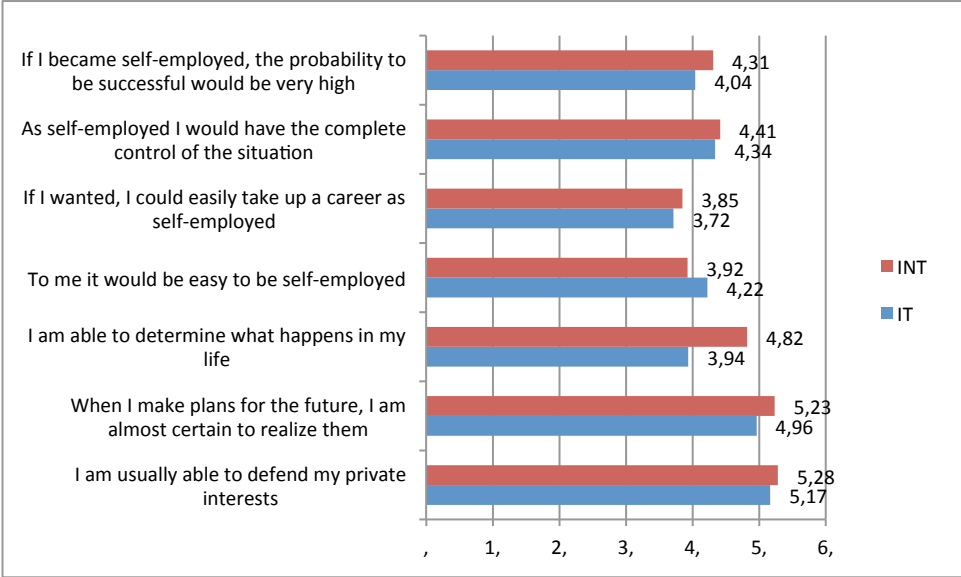


Controllability measures people's beliefs that they have control over the behavior, that its performance is or is not up to them. Together with self-efficacy it determines perceived behavioral control (Ajzen, 2002). Students were asked to assess their perceived controllability on a 7-items 7-points Likert scale (Figure 6.24). Compared to the international GUESSS sample Italian students exhibit a lower degree of perceived controllability. This should be taken into account when designing entrepreneurial programs, as one of the objectives of entrepreneurial education is increasing the perceived controllability (Bae et al., 2014). A specific analysis showed also that controllability follows and analogous pattern as self-efficacy in its distribution across gender, career choice intentions, family background, study field and performance<sup>70</sup>. This is not surprising as they are sub factors of the same construct.

<sup>69</sup> Significance test: univariate ANOVA or Fstar, if Barlett's test did not reject null hypothesis of equal variances; level of significance  $p < 0.0001$  for all items

<sup>70</sup> Significance test: univariate ANOVA or Fstar, if Barlett's test did not reject null hypothesis of equal variances; gender differences: level of significance  $p < 0.01$  for all items; career and study performance differences: level of significance  $p < 0.0001$  for all items; family background differences: level of significance  $p < 0.05$  for all items except for *I am able to determine what happens in my life* ( $p > 0.1$ ); field of study differences: level of significance  $p < 0.05$  for all items

Figure 6.24: Perceived controllability in the Italian and international GUESSS samples

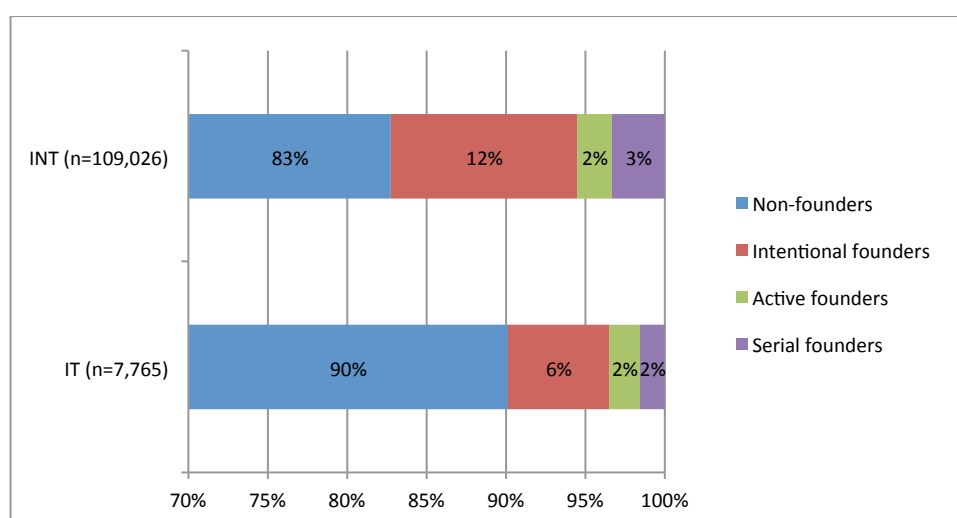


## 7. FOUNDING INTENTIONS

### 7.1 Non-Founders, Intentional, Active and Serial Founders

Students were asked whether they were seriously planning to start a business or be self-employed or whether they were already managing an own business. These answers were used to group the participants to the survey into non-founder, intentional, serial and active founders (Figure 7.1). Most of the sample is composed by non-founders; only one tenth of respondents is actively involved in entrepreneurial activities. 6% were seriously planning to start a business for the first time (i.e. intentional founders); 2% of the students were already self-employed at the time of the survey, but were also going to found a venture (i.e. serial founders); 2% of the students were active founders without the intention to start a new company (i.e. active founders). Most of the nascent entrepreneurs (i.e. intentional or serial founders, n=618) come from Politecnico di Torino (259 students out of 1,890 surveyed students), followed by Università degli Studi di Trieste (73 out of 1,238 surveyed students) and Università degli Studi di Bergamo (67 out of 1,437 surveyed students). Most of the students that already founded a business (n=272) came from Politecnico di Torino (80 students out of 1,890 surveyed students), followed by Università degli Studi di Trieste (48 out of 1,238 surveyed students) and Università degli Studi di Padova (45 out of 1,589 surveyed students). In an international comparison there is a striking difference regarding the fraction of intentional founders in the Italian GUESSS sample. Italian students are less likely to seriously think to start a business while they are still studying. As seen before in Section 5.1 this could be explained by the need to make some kind of different working experience before founding a business. Moreover in the previous Chapter has shown that Italian students are surpassed by their international colleagues both in terms of subjective norms and perceived behavioral control. A specific analysis shows also that the larger rate of students of Natural Sciences compared to students from Business and Economics does not fully explain the lower fraction of intentional founders in the Italian GUESSS sample, since Natural Sciences and Business Economics students exhibit the same likelihood to be intentional founders (7%).

Figure 7.1: Non-founder, intentional, active and serial founders in the Italian and international GUESSS samples



The profile of students engaged in founding activities depends from the composition of the sample. Still the difference among profiles of various founders' groups allow to get insights concerning the characteristics that enhance the probability to belong to one of these class of founders.

Male students of the Italian GUESSS sample are more<sup>71</sup> likely to be engaged in entrepreneurial activities, especially concerning the foundation of a new firm (Figure 7.2) in line with extant literature (Block et al., 2008).

Figure 7.2: Gender of non-founder, intentional founders and active founders in the Italian sample<sup>72</sup>

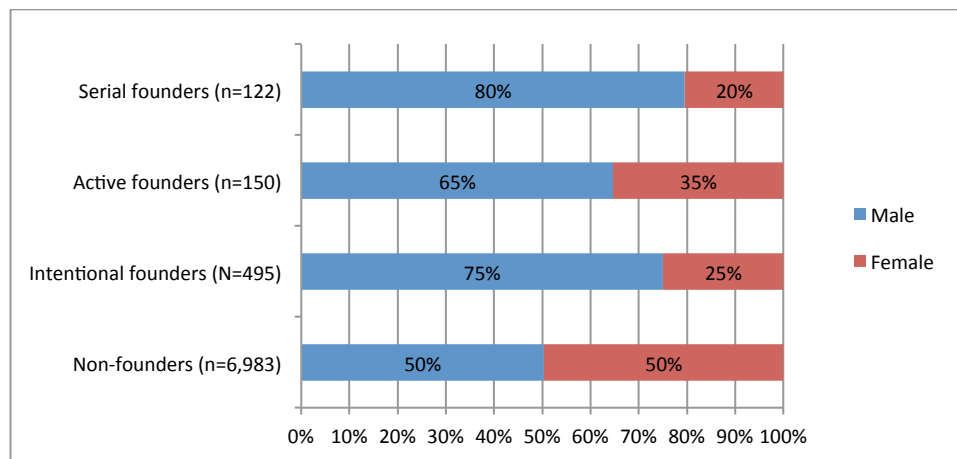
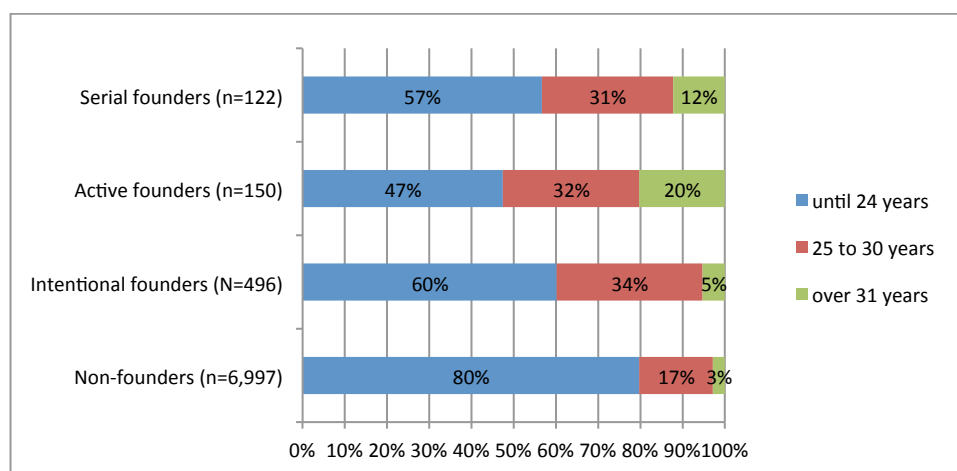


Figure 7.3 show that founding intentions and activities increase<sup>73</sup> with age, confirming findings of several research on entrepreneurial antecedents (Block et al., 2013). However younger students that are already self-employed are more likely to be serial founders. This suggest that older entrepreneurs are more pleased with their business.

Figure 7.3: Age distribution of non-founders, intentional, active and serial founders in the Italian sample<sup>74</sup>



<sup>71</sup> Significance test: Pearson's chi-square; level of significance  $p < 0.0005$

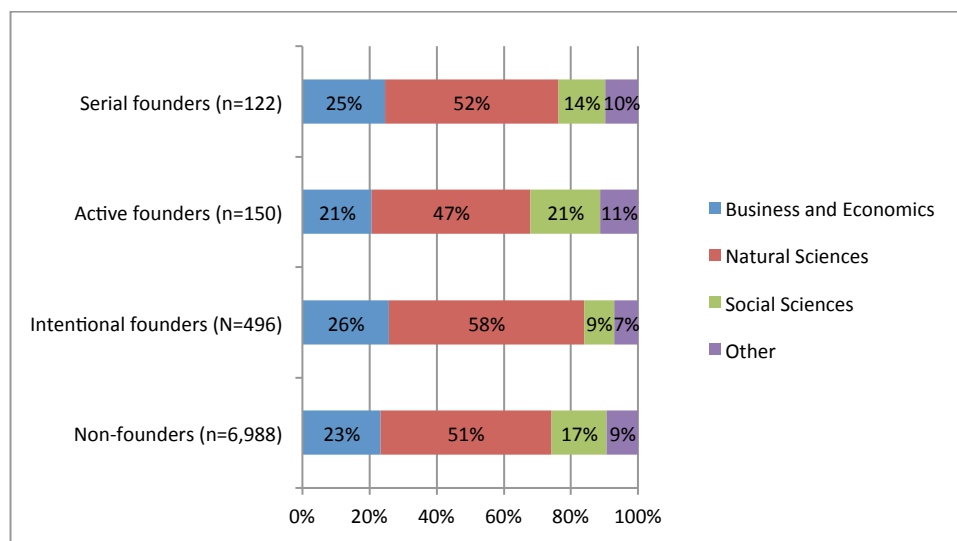
<sup>72</sup> Excluded not applicable responses

<sup>73</sup> Significance test: Pearson's chi-square; level of significance  $p < 0.0005$

<sup>74</sup> Excluded not applicable responses

Significant<sup>75</sup> difference of founding intentions was found among respondents from various field of study (Figure 7.4). Natural Sciences and Business Economics students are more represented among intentional founder rather than among non-founders. Surprisingly students of Social Sciences are more frequent among active entrepreneurs rather than among non-founders. A specific analysis shows that the rate of non-serial active entrepreneurs is the same for each study area (2%). For this reason the scarce attention to entrepreneurship in Social Science faculties should be a concern. Despite the scarce entrepreneurial career attitudes of Social Sciences students, there could be more potential for entrepreneurship in this field of study. University should explore this opportunity.

Figure 7.4: Field of studies of non-founder, intentional, active and serial founders in the Italian sample<sup>76</sup>



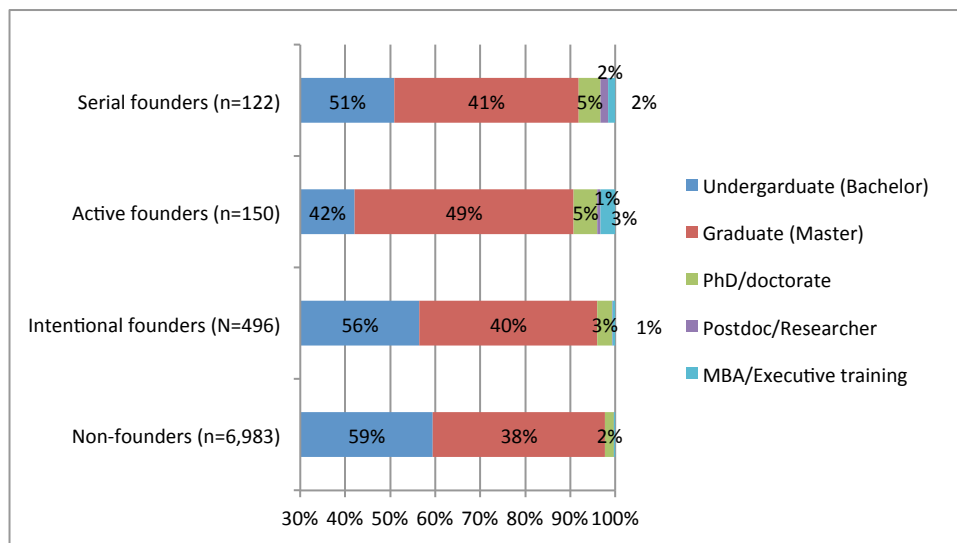
Level of education seem positively correlated with current founding activities<sup>77</sup> (Figure 7.5), as shown by Block et al. (2013a). Of course this could also be explained by the correlation between level of education and age. Undergraduate students are probably less likely to have had the opportunity to start a business. Still they exhibit greater propensity to be self-employed five years after graduation (see Section 5.4) and to start a new business if they are already self-employed.

<sup>75</sup> Significance test: Pearson's chi-square; level of significance  $p < 0.005$

<sup>76</sup> Excluded not applicable responses

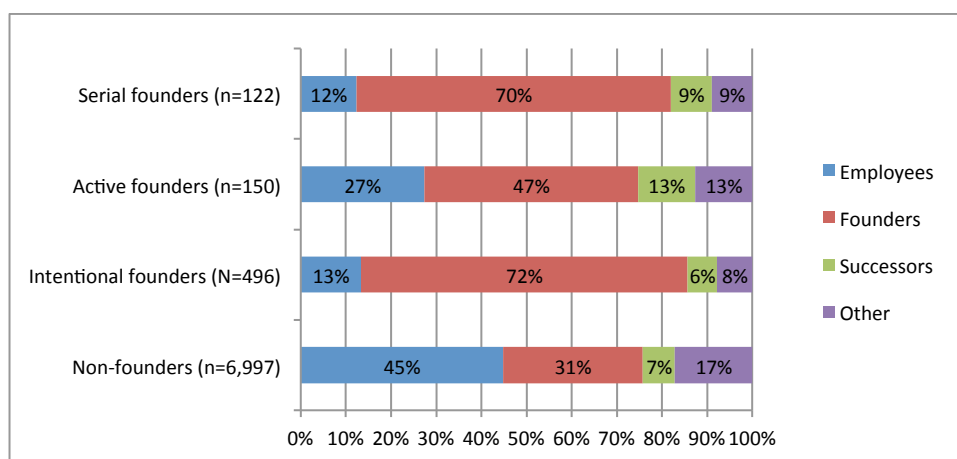
<sup>77</sup> Significance test: Pearson's chi-square; level of significance  $p < 0.0005$

Figure 7.5: Level of studies of non-founder, intentional, active and serial founders in the Italian sample <sup>78</sup>



Aspiring entrepreneurs are more represented among intentional and serial founder<sup>79</sup> (Figure 7.6). More than half of active founders plan to change career five after graduation. In particular one fourth intends to become employee and 13% to be take over an existing business. Looking to intentional and serial founders almost three fourths of them consider the current efforts to start a business as a long term career choice<sup>80</sup>. It seems that students that are already self-employed have been induced by the start-up experience and the related problems to choose another career path. For this reason the bad perceptions of active founder concerning university’s offering and climate (see Sections 4.2 and 4.3) is a serious problem to be addressed.

Figure 7.6: Career choice intentions five years after graduation of non-founder, intentional, active and serial founders in the Italian sample <sup>81</sup>



<sup>78</sup> Excluded not applicable responses

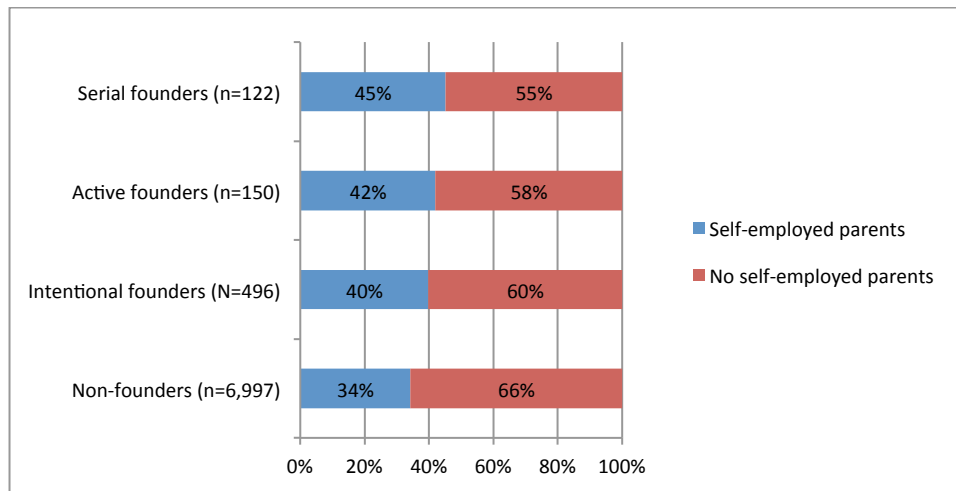
<sup>79</sup> Significance test: Pearson’s chi-square; level of significance  $p < 0.0005$

<sup>80</sup> A specific analysis shows that only 22%, 25% and 48% of intentional, active and serial founders respectively plan a career as entrepreneur right after studies

<sup>81</sup> Excluded not applicable responses

Not surprisingly students that have at least one self-employed parent are more likely to be engaged in entrepreneurial activities at the time of the survey<sup>82</sup> (Figure 7.7), consistently the stylized fact that family background affects the decision to become entrepreneur (Bosma et al., 2012).

Figure 7.7: Family background of non-founder, intentional, active and serial founders in the Italian sample<sup>83</sup>



## 7.2 Strength of founding intentions

The degree and intensity of individuals' entrepreneurial intent vary from person to person possessing it and is related to the likelihood to effectively perform the behavior (Thompson, 2009). Students<sup>84</sup> were asked to assess the strength of their entrepreneurial intent on a scale, an 6-item, behavioral-intention-oriented, 7-point Likert-type scale taken from Linan (2009).

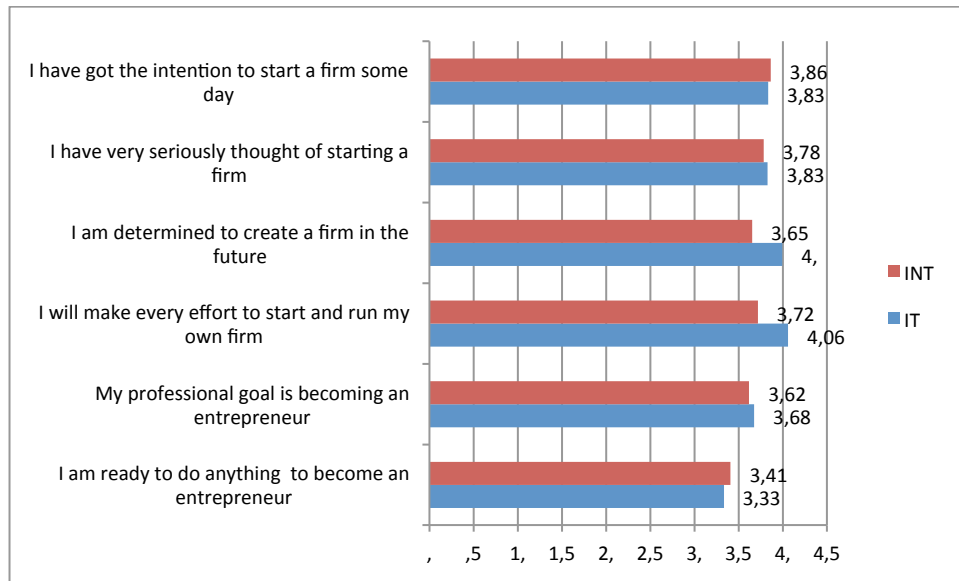
In an international comparison Italian students exhibit stronger founding intentions in 4 out of six items (Figure 7.8). However such intentions are not reflected in a greater fraction of intentional founders in the Italian sample. According the Theory of Planned Behavior perceived behavioral control, together with intentions, predicts the likelihood to perform a behavior. Thus the lower likelihood of Italian students to transform intentions into behavior may be explained by the smaller degree of self-efficacy shown compared to students in the international sample. Italian universities should focus on increasing entrepreneurial competences of their students in order to allow them to realize their entrepreneurial ambitions.

<sup>82</sup> Significance test: Pearson's chi-square; level of significance  $p < 0.005$

<sup>83</sup> Excluded not applicable responses

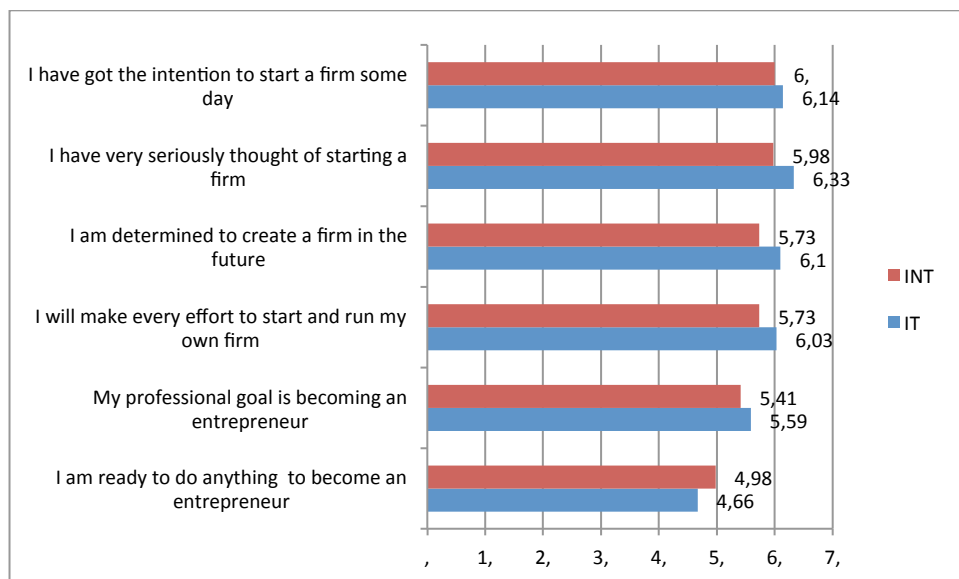
<sup>84</sup> Active and serial founders (i.e. already self-employed students,  $n=272$ ) did not answer to this question

Figure 7.8: Strength of founding intentions in the Italian and international GUESSS samples (base=all non-active entrepreneurs)



Another argument that seems to support the idea that in Italy it is more difficult to students to start a business is provided in Figure 7.9. Italian intentional founders exhibit a greater determination in their intentions to start a business than their international colleagues. This suggests that greater firmness is required in the Italian context in order to face the obstacles and problems linked to start and run an entrepreneurial company as a student.

Figure 7.9: Strength of founding intentions in the Italian and international GUESSS samples (base=intentional founders)

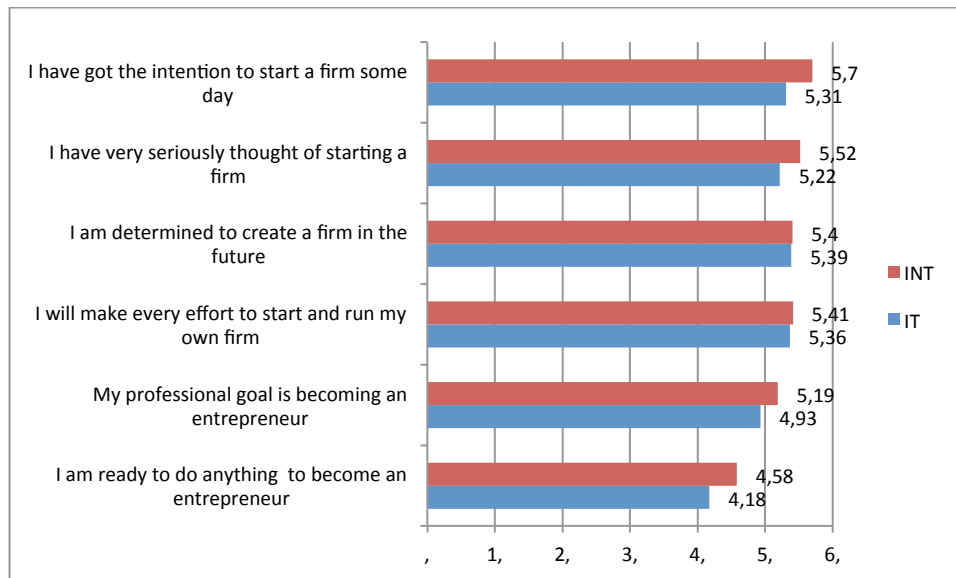


However when we look at the strength of founding intention of Italian aspiring founders five years after graduation in an international comparison, the choice of being entrepreneur seems to be taken with



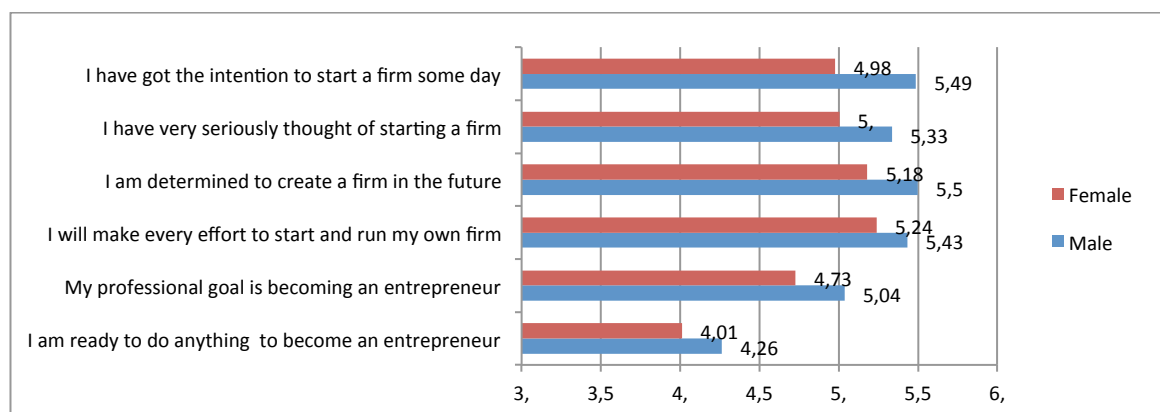
lower commitment (Figure 7.10). This could be explained by the awareness of Italian students that external factors could challenge their aspiration.

Figure 7.10: Strength of founding intentions in the Italian and international GUESSS samples (base=intentional founders)



Among aspiring founders<sup>85</sup> of the Italian GUESSS sample male students are more<sup>86</sup> firm in their career choice intention (Figure 7.11). The lower commitment to entrepreneurial career of females could be explained by their lower perceived controllability and their awareness that females' entrepreneurial activity depends more upon external factors (Minniti and Nardone, 2007).

Figure 7.11: Strength of founding intention of founding intentions of aspiring entrepreneurs five years after graduation by gender in the Italian sample

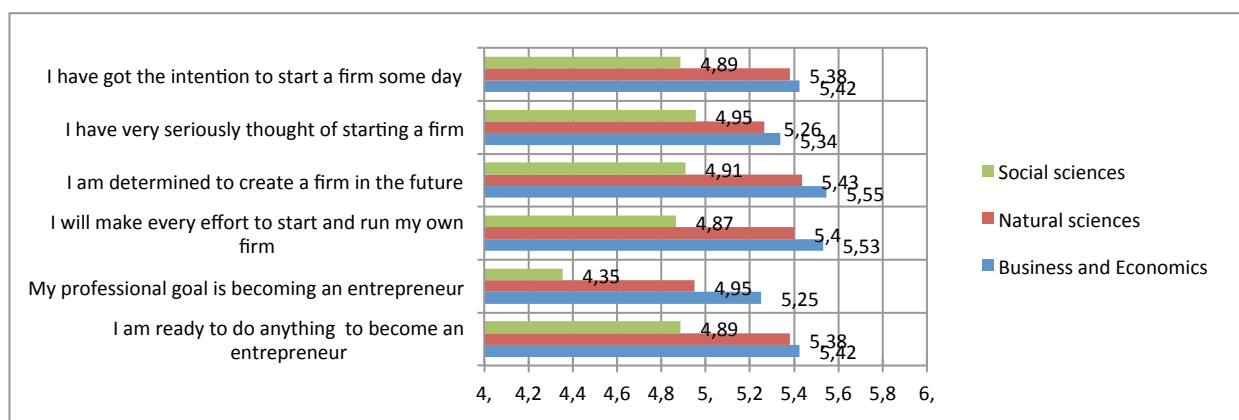


<sup>85</sup> Students that reported founder as career choice intention 5 years after graduation

<sup>86</sup> Significance test: univariate ANOVA or Fstar, if Barlett's test did not reject null hypothesis of equal variances; level of significance  $p < 0.01$  for all items

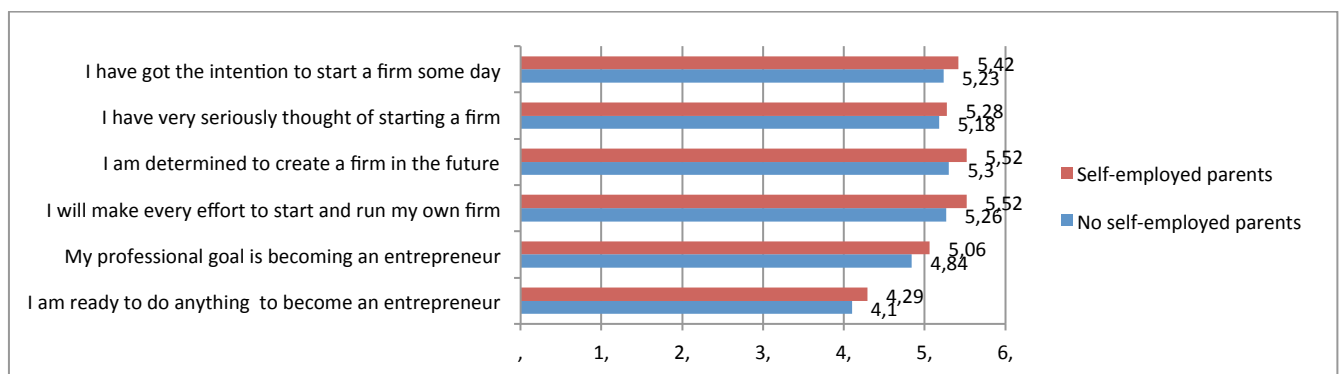
Comparing the resolution of aspiring founders by field of study (Figure 7.12) it seems that students of Business and Economics are more aware of their choice, compared to other respondents<sup>87</sup>, even more than students of Natural Sciences that reported higher rates of aspiring founders 5 years after graduation (40% versus 34% of Business and Economics). This could be explained by the greater space reserved to entrepreneurial education in Business and Economics (see Section 4.2). One of the roles played by entrepreneurial education is to reinforce the strength of founding intentions for intentional entrepreneurs and deter students who are not really committed to a career as entrepreneur from starting a business (von Graevenitz et al., 2010).

Figure 7.12: Strength of founding intention of aspiring founders five years after graduation by field of study in the Italian sample



Aspiring founders report stronger founding intentions<sup>88</sup>, if they have at least one self-employed parent (Figure 7.13). This is in line with the supporting the role of entrepreneurs in the family as provider of emotional support (Santarelli and Tran, 2013).

Figure 7.13: Strength of founding intention of aspiring founders five years after graduation by family background in the Italian sample



<sup>87</sup> Significance test: univariate ANOVA or Fstar, if Barlett's test did not reject null hypothesis of equal variances; level of significance  $p < 0.005$  for all items

<sup>88</sup> Significance test: univariate ANOVA; level of significance  $p < 0.005$  for all items except for *I have very seriously thought of starting a firm*; equal variances not rejected by Barlett's test

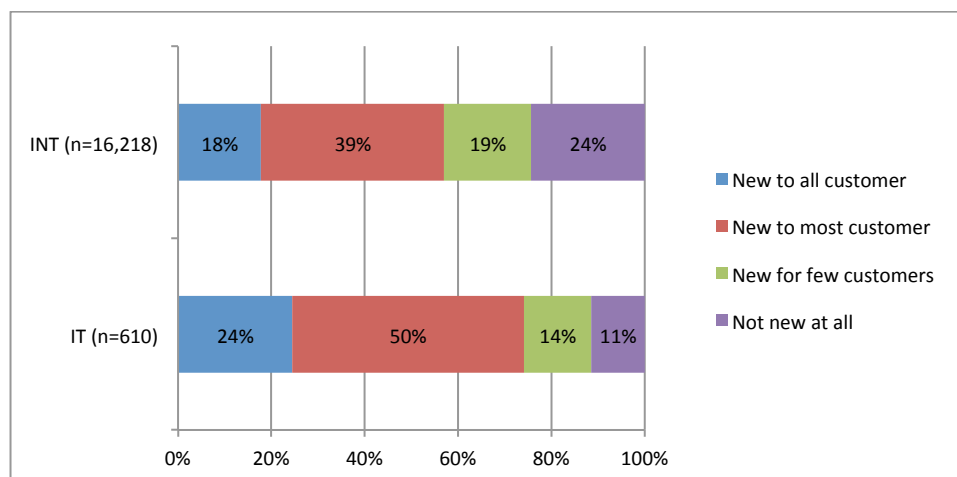
## 8. NASCENT ENTREPRENEURS

Focus of this chapter is the profile of the firms to be founded by nascent entrepreneurs which are intentional and serial founders and represent respectively 6% (n=496) and 2% (n=122) of the Italian GUESSS sample. On average nascent entrepreneurs plan to start their business within 14 months (against 13 months of the international sample) and to invest 65% (61% in the international sample) of their time in their new firm<sup>89</sup>. However between intentional and serial founders there is remarkable difference<sup>90</sup> in terms of the estimated time required to start the venture. First of all only 276 out of 496 (55.6%) intentional founders are able to estimate the time needed, whereas 70% of serial founders have answered to the question. Second excluding not applicable responses serial founders plan to start their business within 9 months, 5 months less than intentional founders. This suggests that start up experience has a positive effect on the learning of the practical tasks needed to start a venture (Santarelli and Tran, 2013). University does not seem able to substitute this kind of human capital, as clearly shown in Section 4.3. University offerings performed the worst in enhancing students' practical competences related to firm's foundation.

### 8.1 Newness and Industry of Future Companies

Most of the companies that Italian students plan to found are innovative<sup>91</sup>. In particular three fourth of the to-be-founded ventures<sup>92</sup> will offer a new products/services (24% completely new, 50% new for most customers). Only 11% will provide a traditional offering, whereas 14% will sell a product/service that is new only to few customers. Figure 8.1 below shows also that businesses Italian students are planning to start are more innovative than the future companies of their international colleagues. This supports the importance to foster students' entrepreneurship as an available mean to universities in order to spur innovation.

Figure 8.1: Newness of future companies in the Italian and international GUESSS samples<sup>93</sup>



<sup>89</sup> No significant differences between novice and serial founders

<sup>90</sup> Significance test: univariate ANOVA; level of significance  $p < 0.0001$  for time to start the business; equal variances not rejected by Barlett's test

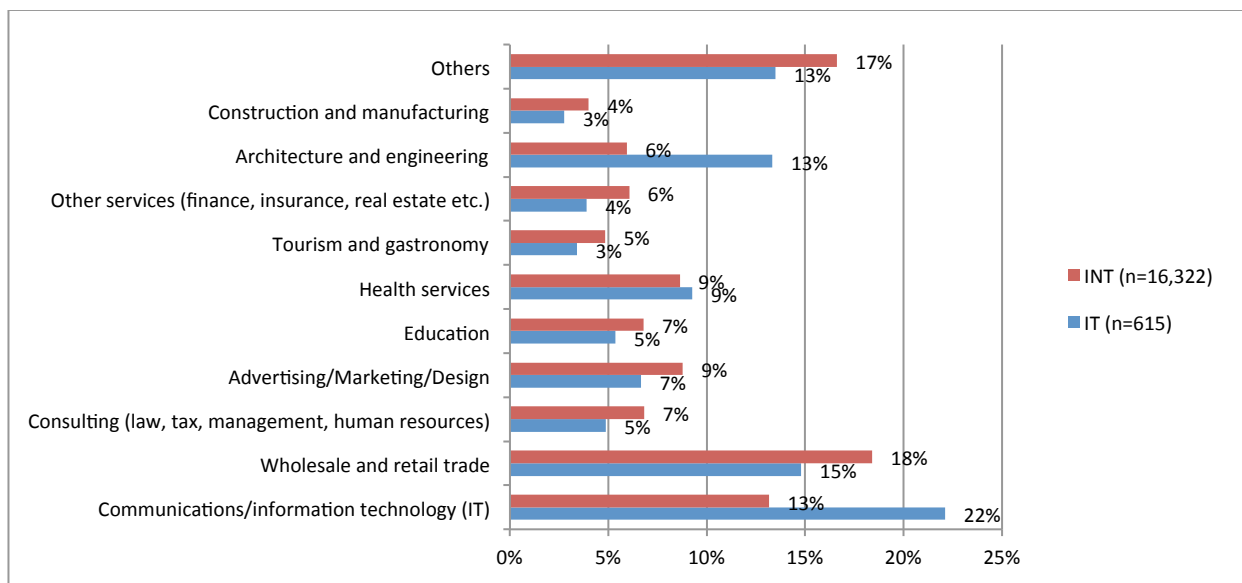
<sup>91</sup> No significant differences between novice and serial founders and among founders from various fields of study

<sup>92</sup> n=610, excluded not applicable answers

<sup>93</sup> Excluded not applicable responses

The industry sector, where most of the nascent entrepreneurs plan their entrepreneurial activity, is communication and information technology (22%), followed by wholesale and retail trade (15%) and architecture/engineering with 13% (Figure 8.2). The strong focus on IT sector and architecture and engineering sectors seems to be a peculiar feature of the Italian sample in an international comparison. The large fraction of future companies in architecture and engineering sector may be influenced by the large representation of students of Natural Sciences in the Italian GUESSS sample, while the interest in the IT sector is shared among various fields of studies (see Figure 8.3 below).

Figure 8.2: Industry sector of future companies in the Italian and international GUESSS samples<sup>94</sup>

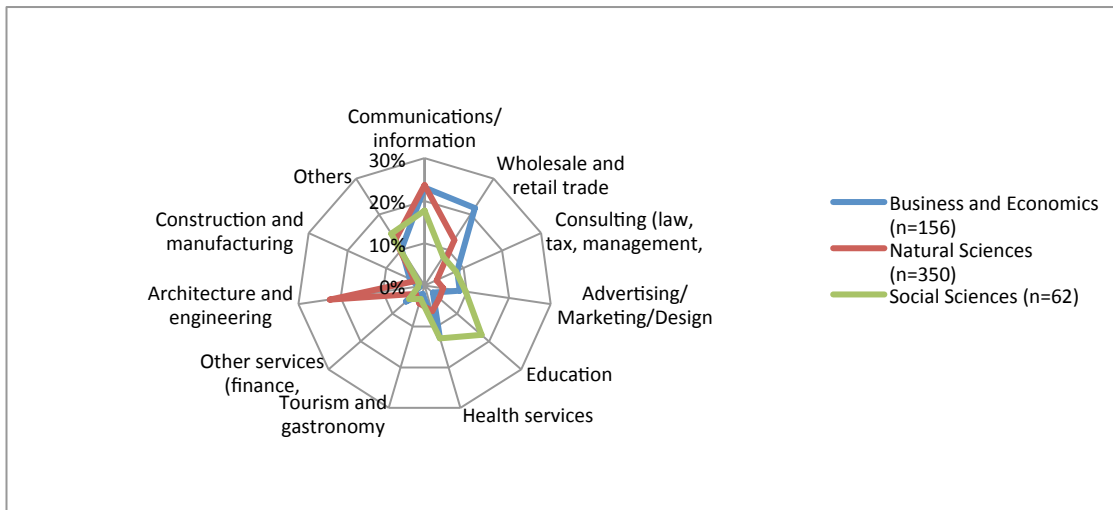


A specific analysis shows significant differences which correspond to the different main emphases of the study fields<sup>95</sup>. Almost a quarter of the Natural Sciences students plan their start-up architecture and engineering, whereas other respondents are not interested in this industry. Students of Natural Sciences are also strongly focused on information technology and communication together with students from Business and Economics. These ones are the most interested into the commercial sector in line with the competences of their study field. Surprisingly they are less inclined to advertising and marketing industry compared to students of Social Sciences, despite their studies would suggest the contrary. Information and communication industry seems to be very attractive also to students of Social Sciences, suggesting that it requires competences from various field. Social Sciences students are the only group of students really focused on education in line with their specialization, but also tourism and restaurant sector draws their attention. Overall it seems they are less polarized than students from other backgrounds. Their competences are less specialized, but are more applicable across industries (Figure 8.3).

<sup>94</sup> Excluded not applicable responses

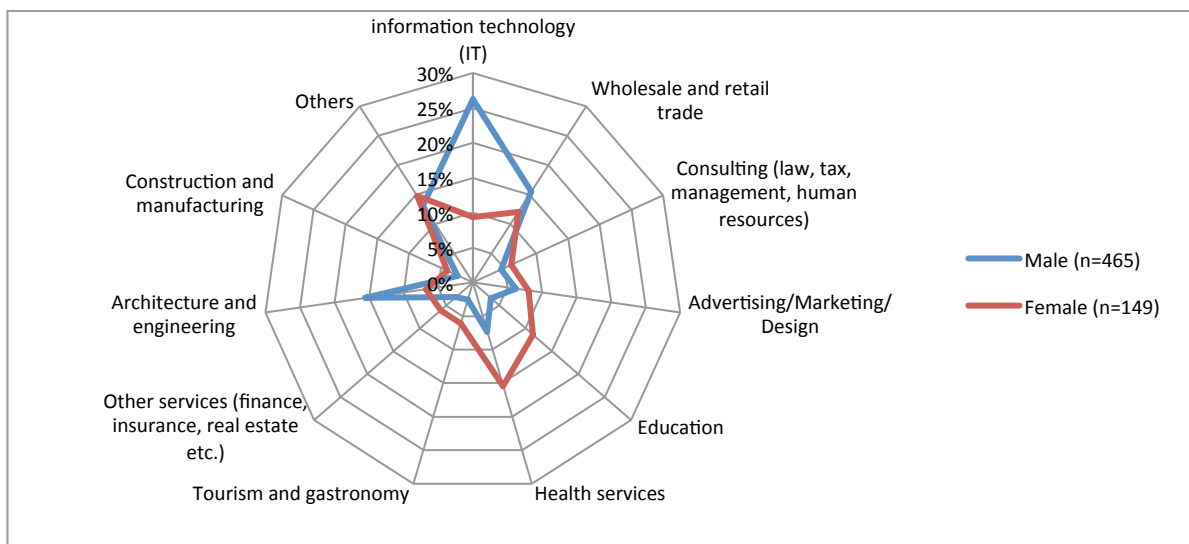
<sup>95</sup> Significance test: Pearson's chi-square: level of significance  $p < 0.0005$

Figure 8.3: Industry sector of future companies by field of study in the Italian sample<sup>96</sup>



A gender specific analysis shows significant<sup>97</sup> differences in regard to the choice of the industry sector (see Figure 8.4). It seems that such variations among gender partially overlap the ones associated to fields of study. As seen in Section 3.2 males are more present in Natural Sciences, females in Social Sciences. Hence it is not surprising that male plan to start their business mainly in Natural Sciences industries (information and communications, architecture and engineering), whereas the main focus of female are Social Sciences industries (education, tourism, marketing). However this does not explain the great interest of female students in the health services sector compared to male students. This may reflect different attitudes and sensibility among genders for the needs of society.

Figure 8.4: Industry sector of future companies by gender in the Italian sample<sup>98</sup>



<sup>96</sup> Excluded not applicable responses

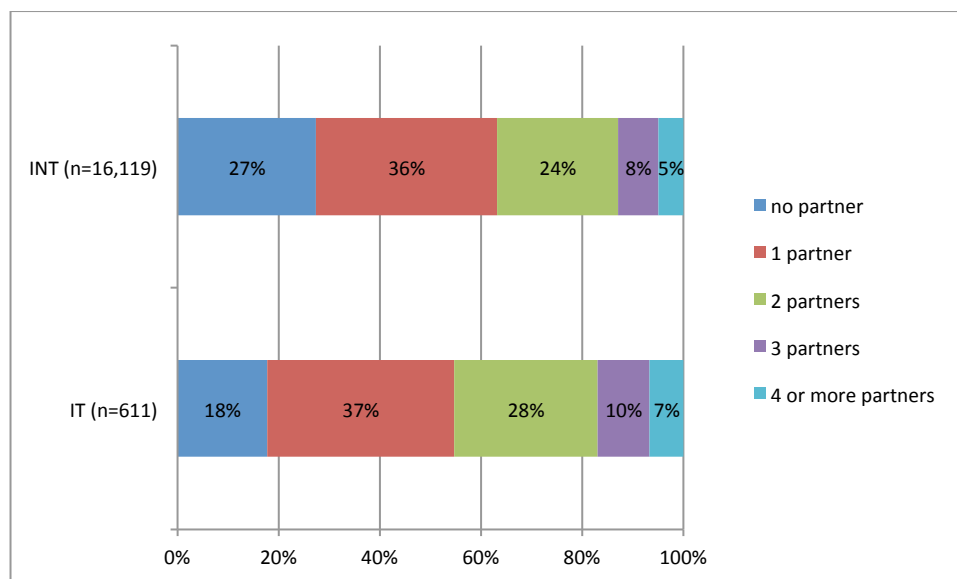
<sup>97</sup> Significance test: Pearson's chi-square: level of significance  $p < 0.0005$

<sup>98</sup> Excluded not applicable responses

## 8.2 Foundation Partners of Nascent Entrepreneurs

The size and the heterogeneity of the founding team are important drivers of venture's success (Gilbert et al., 2006). Nascent entrepreneurs were asked to provide information about their planned founding team. On average students aim to have 63% of the ownership of their future company. Around a quarter (26%) will own less than 50%, whereas 21% aims to be the sole owner of the future company. Only 18% of the nascent entrepreneurs tend to found an enterprise without partners; almost two fifths want to found with one partner; the rest of the nascent entrepreneurs plans to start their business with two or more partners (Figure 8.5). In an international comparison the inclination to found a company alone is weaker in the Italian sample. This could be due by greater difficulties felt by Italian students in founding a firm leading them to ask someone other's help. Another explanation could be the greater perceived newness of Italian to-be-founded businesses. A founding team could be a mean to manage the increased complexity of an innovative firm.

Figure 8.5: Number of partners at planned foundation in the Italian and international GUESS samples<sup>99</sup>

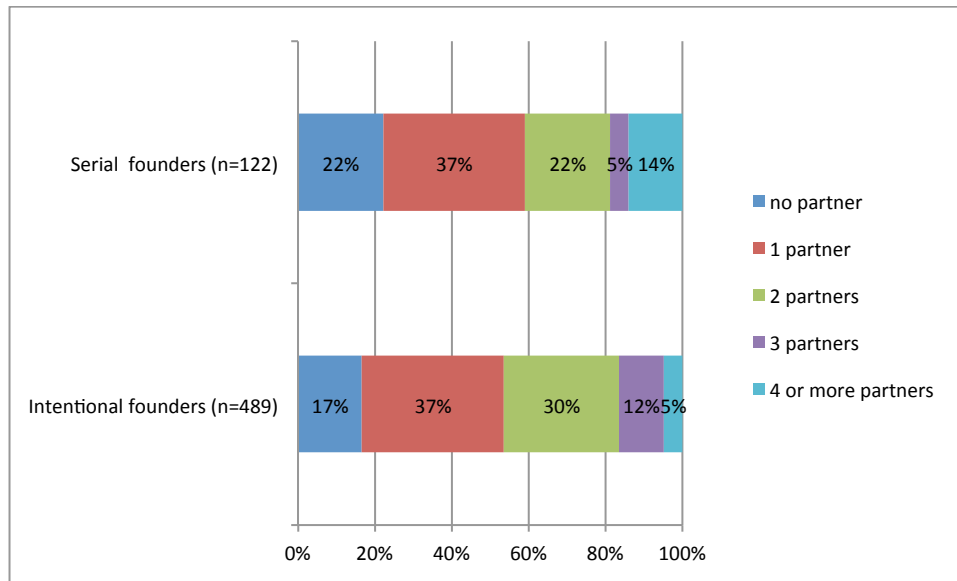


Significant differences<sup>100</sup> concerning the number of foundation partners among intentional and serial founders (Figure 8.6). Students with previous entrepreneurial experience are more likely solo-founders. Still if they decide to found the business with someone else they plan to recruit more cofounders. On one hand this suggest that they have more competences to manage the foundation; on the other hand they may be in contact with a larger network of potential entrepreneurs or have more ambitious projects that require more support by co-founders.

<sup>99</sup> Excluded not applicable responses

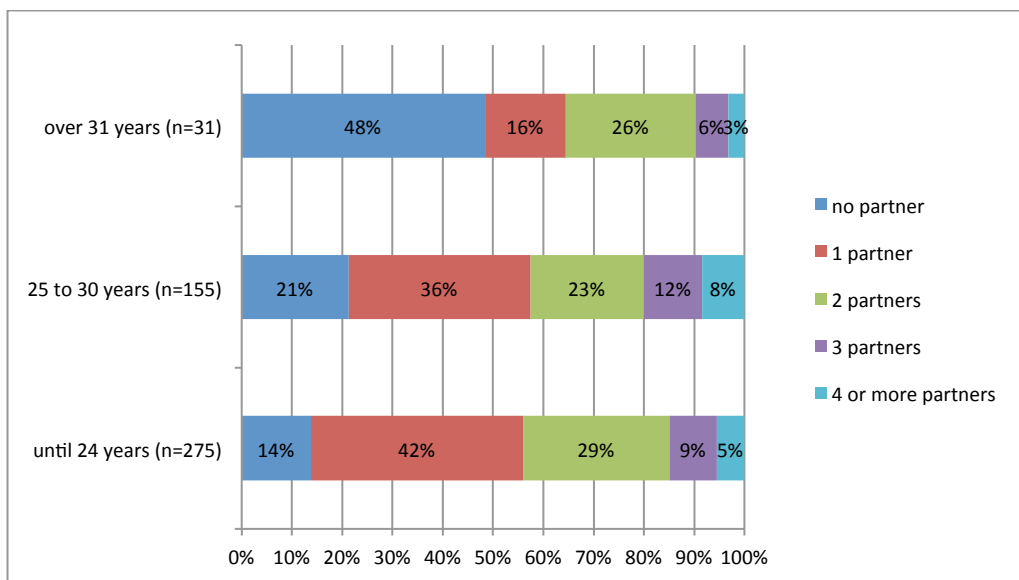
<sup>100</sup> Significance test: Pearson's chi-square: level of significance  $p < 0.0005$

Figure 8.6: Number of partners at planned foundation by class of nascent entrepreneurs in the Italian sample<sup>101</sup>



It seems that the need to have partners in order to start the business decrease with age<sup>102</sup> (Figure 8.7). Older people may have more resources available to them (Block et al., 2013a) and might be more able to start a business as solo founders.

Figure 8.7: Number of partners at planned foundation by age in the Italian sample<sup>103</sup>



In Figure 8.8 it is possible to see that the majority of the foundation partners comes from the network of personal friends outside the university context (mentioned 68%). More than an half of nascent

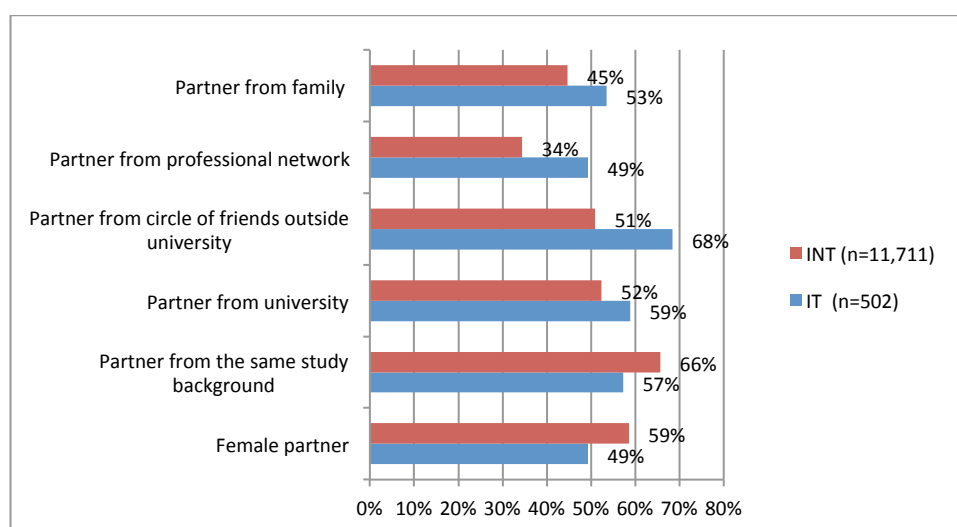
<sup>101</sup> Excluded not applicable responses

<sup>102</sup> Significance test: Pearson's chi-square: level of significance  $p < 0.0005$

<sup>103</sup> Excluded not applicable responses

entrepreneurs plans to have at least one partner from the own university (mentioned 59%) or with the same study background. The complementarity of entrepreneurial skills among students from various fields (see Section 6.6) may explain why more than a third of non-solo nascent entrepreneurs plan to have partner with a different study experience. In particular it seems that to founders from Business and Economics it is more important to have partner with different study background (partner with same study background mentioned 45%), while students of Natural Science reported more frequently to have partner from the university or with a similar study experience (63% and 64% respectively). For students of Social Sciences the network of friend outside university is the most important place to find partners (mentioned 86%). More than half of non-solo nascent entrepreneurs wants to start the business with a family member (53%), especially if they had an entrepreneurial family background (58% if they have at least one self-employed parent). The professional network has been mentioned 49%, but serial founders that are expected to have a more developed network have mentioned it 65%. Finally 49% of the non-solo nascent entrepreneurs plan to have at least one female co-founder (mentioned 41% by males, 77% by females). International colleagues have mentioned female partners more frequently. This could be due by the lower fraction of male students in the Italian sample. In an international comparison for nascent entrepreneurs of the Italian sample the circle of friend outside university and from the professional network are far more relevant as source of business partners. Also family is mentioned more frequently as a mean to find co-founders. Overall this figure suggests that the decision to start a business is more independent from the university context for Italian students. This could explain why founding teams of Italian nascent entrepreneurs are more heterogeneous in terms of study background, which could be a positive aspect given the positive effect of team's heterogeneity on venture's performance (Gilbert et al., 2006).

Figure 8.8: Characteristics of partners (multiple response) in the Italian and international GUESSS samples, base=non-solo nascent entrepreneurs<sup>104</sup>

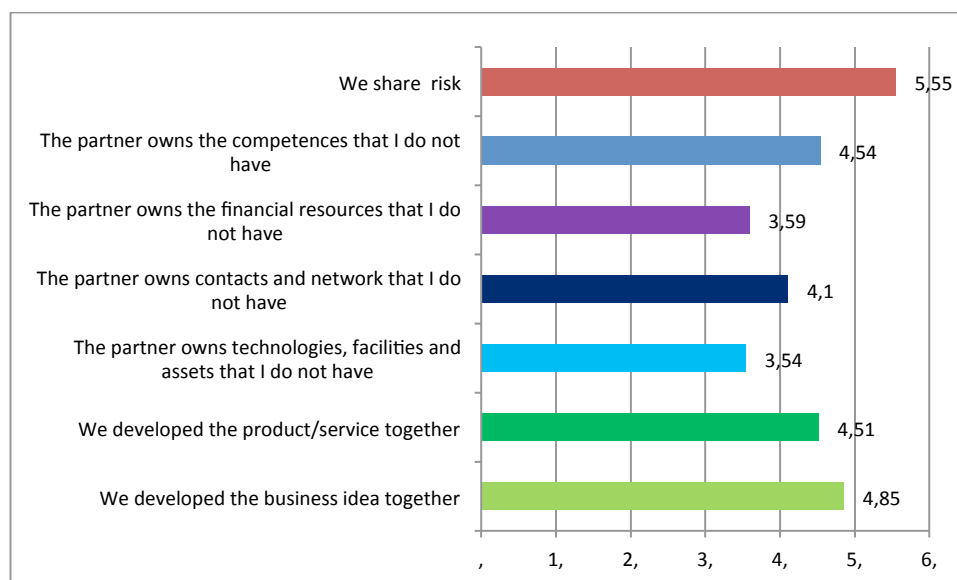


<sup>104</sup> Included not applicable responses. The percentage refers to the frequency a characteristic of the planned partner was mentioned



Students were asked to evaluate the importance of the motives behind the choice of their partners on a 7-points Likert scale. The most important reason behind the choice of co-found together with a partner is sharing risk with someone else (Figure 8.9). Also tackling together the creative activities seems to be a relevant consideration in the choice of partners. This is true especially for students of Natural Sciences (*We developed the product/service together* valued at 4.8 against 4.1 of students from other fields) and could explain why Natural Sciences students prefer to have co-founders with the same study experience. They are more likely to need the support of someone else with similar specific skills in order to develop their product/service. Figure 8.9 shows also that motives of secondary importance were related to getting easier access to physical and financial resources. Nascent entrepreneurs are still in the creative part of the founding process (see Section 8.4 below) and practical issues may have not be carefully considered yet. Another explanation could be the difficulty faced by young people to find partners with that kind of resources.

Figure 8.9: Motive for choice of partners of future companies in the Italian sample

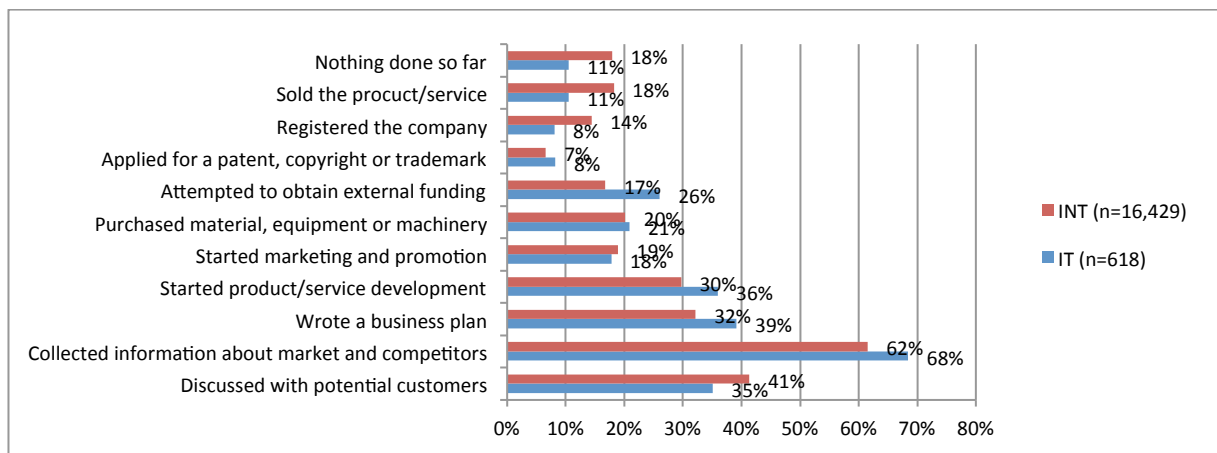


### 8.3 The Founding Process of Future Companies

The range of the activities which nascent entrepreneurs have already taken to found a business varies from *nothing done so far* (11%) to *registered the company* (8%). Approximately a tenth of the intentional founders have not taken any concrete step to found a business; at least two third of the intentional founders have started to collect information about the potential market and competitors. More than a third has already discussed with customers (35%), worked on product development (36%) or on the business plan (39%). The just mentioned results are shown in Figure 8.10 and point out that support is needed during the performance of more practical tasks related to business formation, such as search for financial and physical resources, start advertising and selling and dealing with legal stuff. On the other hand the activities that are more likely to be taught in university courses, such analysis of market and writing of business plan, are tackled more frequently. Again this confirms the importance that universities provide “education for start-ups” (Linan,

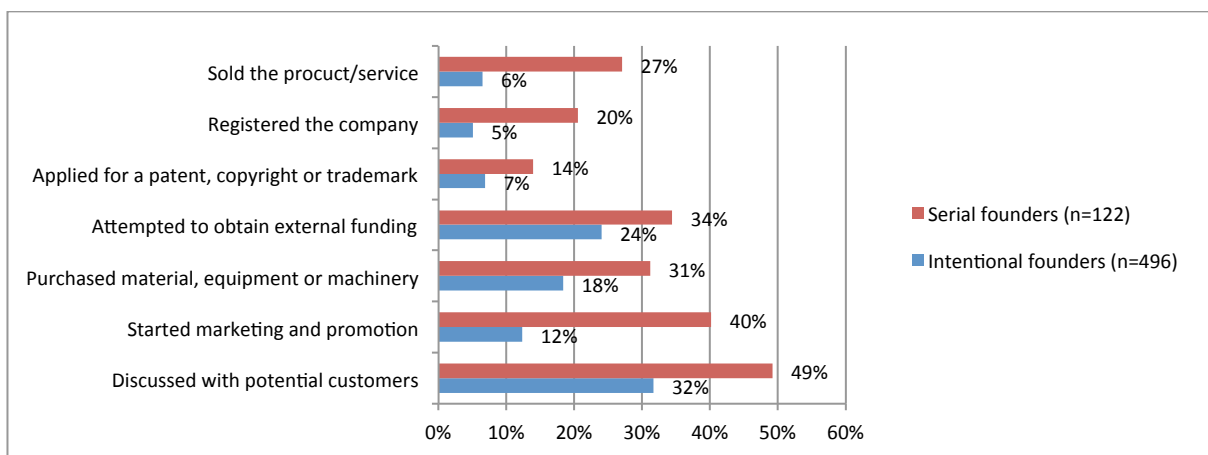
2004), since Italian students lack especially the practical skills required to start a business, as pointed out also in Sections 4.3 (effect of university on entrepreneurial competences) and Section 6.6 (self-efficacy of Italian students). An international comparison supports this need. As shown in Figure 8.10 international students have more frequently performed the advanced task required to business foundation such as selling the product and registering the company. On the other hand an higher fraction of the international sample has done nothing so far. Moreover Italian nascent entrepreneurs are more likely to have already started to search for external funding and to have written the business plan.

Figure 8.10: Steps taken to found a business (multiple responses) in the Italian and international GUESSSS samples<sup>105</sup>



It seems that previous entrepreneurial experience may compensate the limitations of university education. Serial founders are more likely to have performed most of the steps required to start the business<sup>106</sup> (Figure 8.1).

Figure 8.11: Steps taken to found a business by class of nascent entrepreneurs (multiple responses)<sup>107</sup>



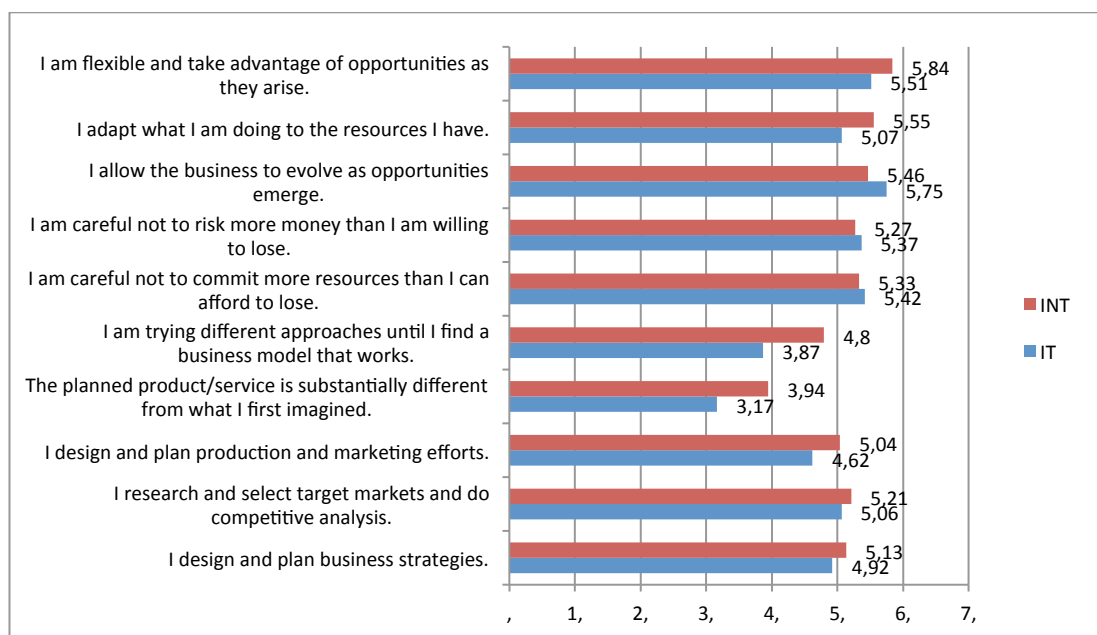
<sup>105</sup> Included not applicable responses

<sup>106</sup> Significance test: Pearson's chi-square: level of significance  $p < 0.05$

<sup>107</sup> Included not applicable responses

Nascent entrepreneurs were asked to describe the foundation process of their future companies by evaluating their level of agreement to 10 sentences on a 7-points Likert scale (Figure 8.9). This allows to assess if students have a more entrepreneurial or managerial approach in dealing with the foundation process. Sahlman and Stevenson (1991, p.1) differentiate between entrepreneurs and managers in that, “entrepreneurship is a way of managing that involves pursuing opportunity without regard to the resources currently controlled. Entrepreneurs identify opportunities, assemble required resources, implement a practical action plan, and harvest the reward in a timely, flexible way.” Regarding the planning process and the use of resources it seems that students have followed a more managerial approach. On the other hand they exhibit an entrepreneurial approach with regard to the flexibility and promptness to exploit opportunities (Figure 8.12). Compared to the Italian GUESSS sample, international nascent entrepreneurs seem to devote more efforts to plan the process of business foundation. Still business model and product offers arises in a more dynamic way. Italian students show also a less entrepreneurial approach in terms of resource utilization. They are more careful in investing their own resources and to adapt their plans to the controlled assets.

Figure 8.12: Gestation activities in the Italian and international GUESSS samples

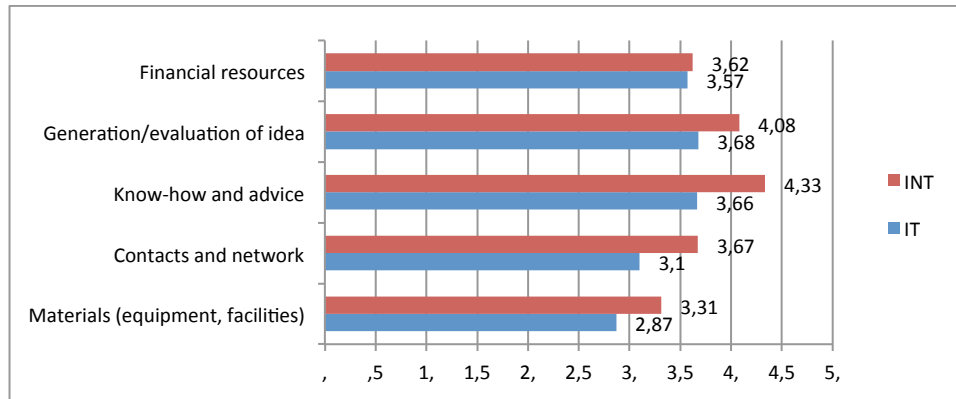


#### 8.4 Family's Support to Business Foundation

In the start-up phase family members may support the founder providing financial, managerial support as well as contributing to the creation of the entrepreneurial network (Santarelli and Tran, 2013). Nascent entrepreneurs have assessed the support received by their family on a 5-items 7-points Likert scale (Figure 8.13). Overall students report scarce help by their relatives in that all items are below 4. In particular it seems that the lowest back-up regards tangible aspects of the start-up process (materials scored 2.87). On the other hand more support is received for the intangible and financial aspects of business foundation

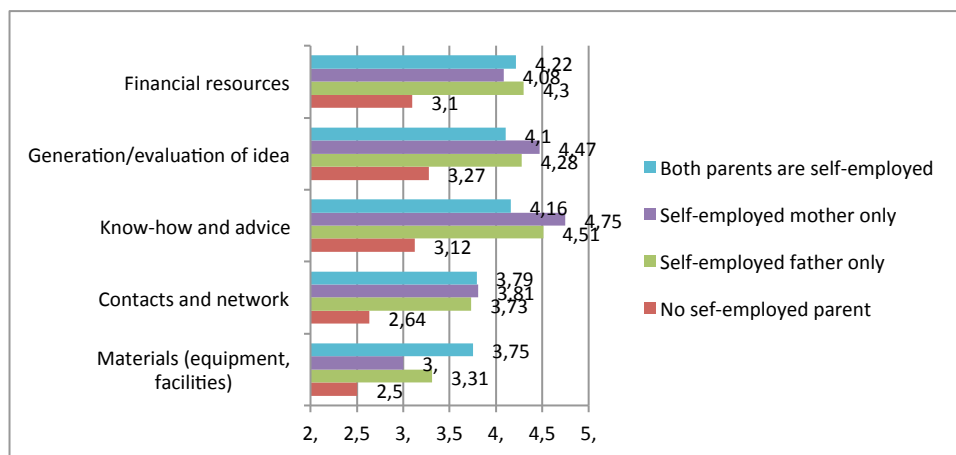
(formulation of idea, provision of advice and financial resources). In an international comparison the lack of support by family is more severe in the Italian context.

Figure 8.13: Family's support to business foundation in the Italian and international GUESSS samples



In line with extant literature (Zellweger et al., 2011) students that come from an entrepreneurial family background (i.e. at least one self-employed parent) receive significantly<sup>108</sup> higher support (Figure 8.14). It seems that mother and father self-employment exercise different influences on the kind of provided support. In particular students that have only a self-employed mother reported greater support for the intangible activities related to the start-up process. This could be explained by the positive influence of self-employed father on family successions rather than foundation suggested by literature (Block et al., 2013a) and the previous findings of the present report (see Section 6.2).

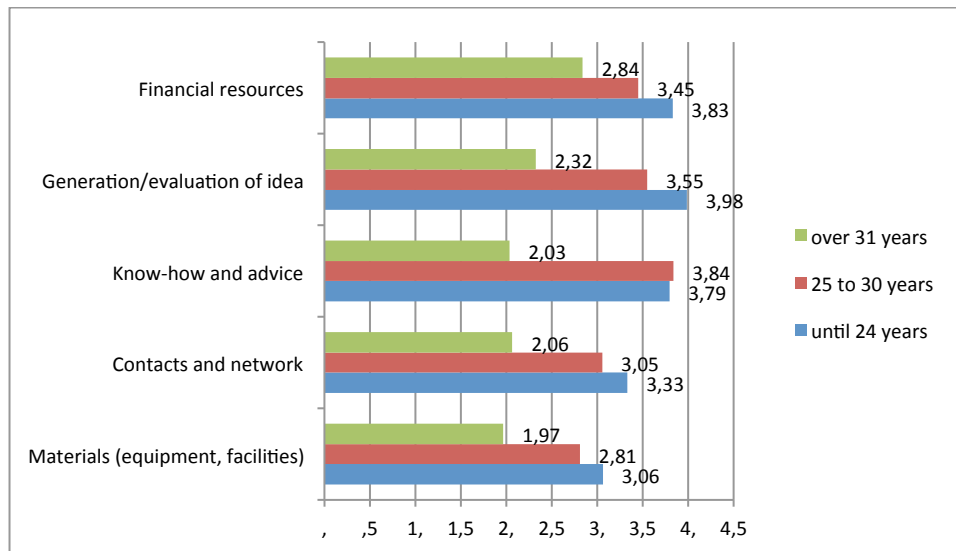
Figure 8.14: Family's support to business foundation by family background in the Italian sample



<sup>108</sup> Significance test: Univariate ANOVA; level of significance  $p < 0.0001$  for all items; equal variances not rejected by Bartlett's test

Figure 8.15 shows that the older students were more<sup>109</sup> independent from the family's support in the start-up process. Still, for student above 31 years old the financial support remains quite important (2.84) and becomes the most relevant kind of help received.

Figure 8.15: Family's support to business foundation by age in the Italian sample

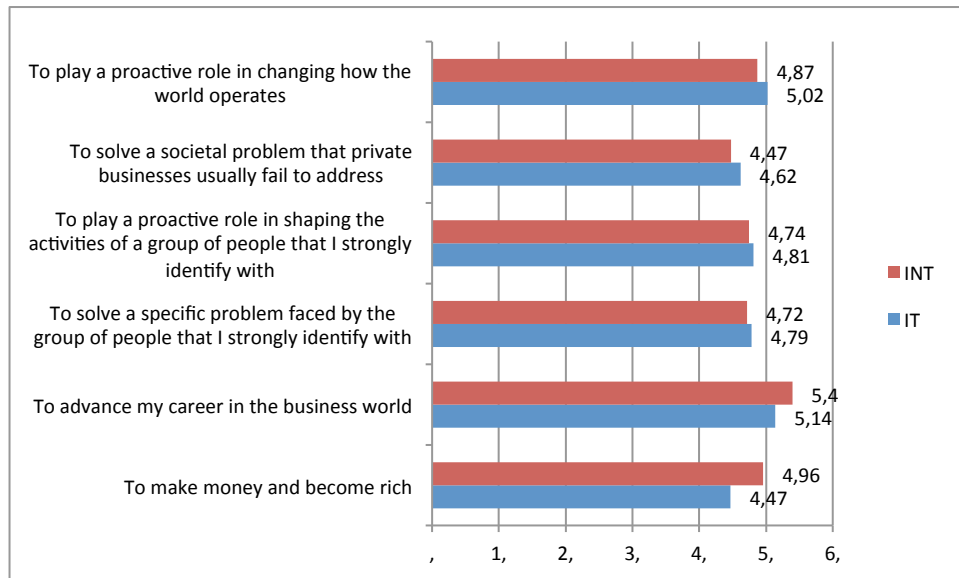


### 8.5 Motives and Goals of Nascent Entrepreneurs

As pointed out by Burke et al.(2002) the motives for starting a business are both pecuniary and non-pecuniary (for example, to benefit the environment or help others). Nascent entrepreneurs were asked to assess the importance of the motives to found the business, of the objectives as business founder and of the goals as managers of the company on three 6-items 7-points Likert scale respectively. Concerning the motives behind the decision to start a venture (Figure 8.16) the pecuniary motive plays a minor role (4.47). On the other hand a career as entrepreneur is seen as an opportunity to invest in themselves and advance the career in the business world (5.14). This may explain why more than a tenth of nascent entrepreneurs plans a career as employee five years after graduation (see Section 7.1). Also the non-profit motive to benefit the environment plays a relevant reason behind start-up decision (5.02). Compared to international nascent entrepreneurs, students of the Italian sample are more driven by societal rather than personal goals. In the international sample making money is the second most important motive, whereas in the Italian sample it is the motive that receives lowest ranking. It seems that in the Italian context the decision to start a business requires an engagement that goes beyond mere personal motives.

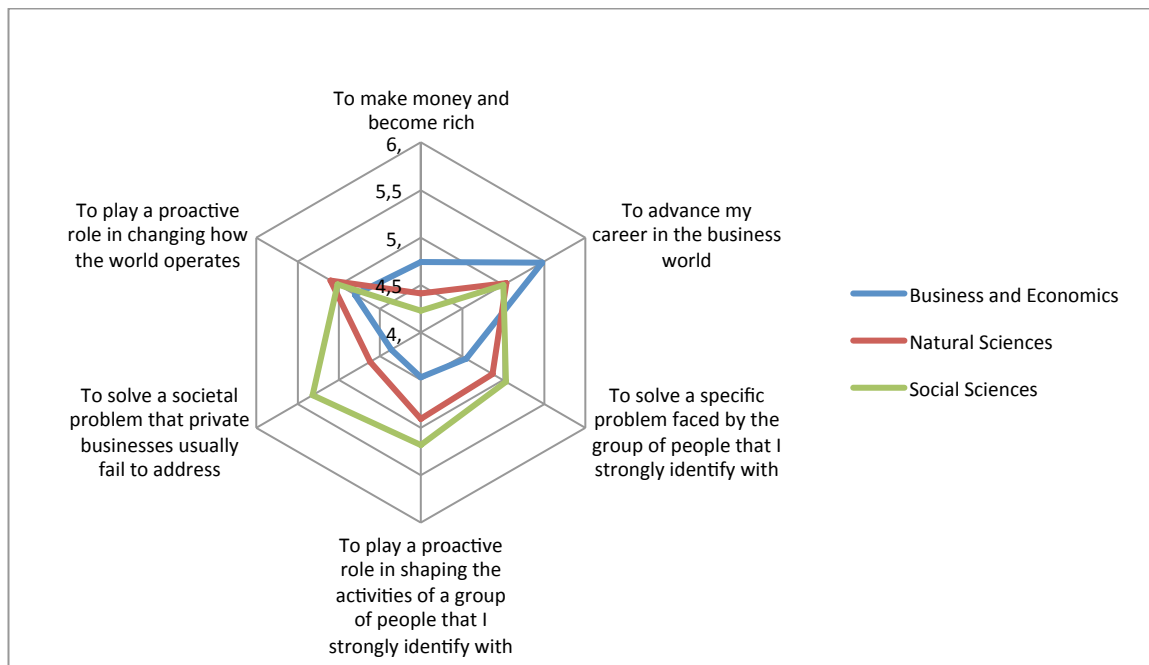
<sup>109</sup> Significance test: Univariate ANOVA; level of significance  $p < 0.05$  for all items; equal variances not rejected by Barlett's test

Figure 8.16: Motives to found the business in the Italian and international GUESSS samples



Some differences<sup>110</sup> can be observed comparing the importance of the motives to be founders among students from various fields of study (Figure 8.17). In particular students of Business and Economics are more focused on the advancement of their career in the business world in line with their studies, whereas students of Social Sciences motives reflect a greater societal engagement.

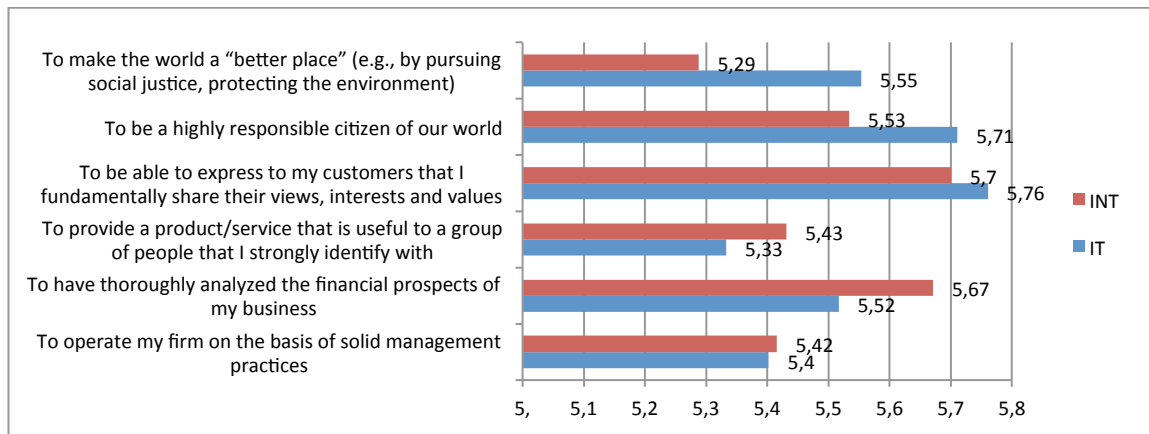
Figure 8.17: Motives to found a business by field of study in the Italian sample



<sup>110</sup> Significance test: Univariate ANOVA; level of significance  $p < 0.05$  for all items except for *To make money and become rich*, *To solve a specific problem faced by the group of people that I strongly identify with*, *To play a proactive role in changing how the world operates*; equal variances not rejected by Barlett's test

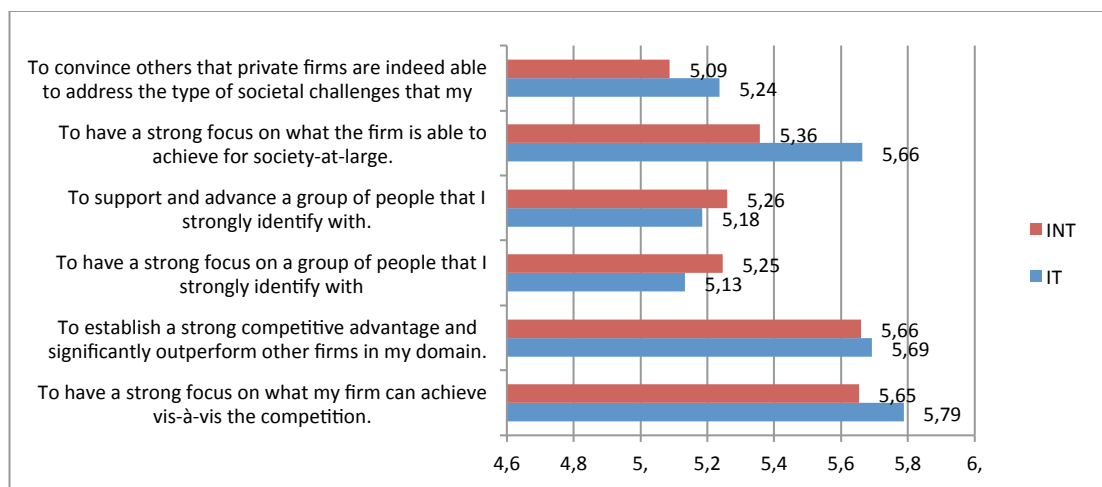
The importance of non-profit motives to found a business are reflected in the ranking of societal objectives that Italian students pursue as business founders (Figure 8.18). Non-pecuniary goals do not harm significantly the importance assigned to managerial and financial challenges faced by future business owners of the Italian sample. Nevertheless these aspects are of lower importance in the Italian rather than in the international sample.

Figure 8.18: Objectives as business founders in the Italian and international GUESSS samples



When it comes to manage the firm, students of the Italian sample are mostly focused on facing competition even more their international colleagues despite the non-pecuniary motives that animate their foundation intentions (Figure 8.16). This is particularly true<sup>111</sup> for students of Business and Economics that have assessed the competition-related items more than 6 points. Still, the management style of future Italian owners remains highly centered around the value that their business can create for society, as evidenced from an international comparison.

Figure 8.16: Goals to be pursued in managing the future company in the Italian and international GUESSS samples



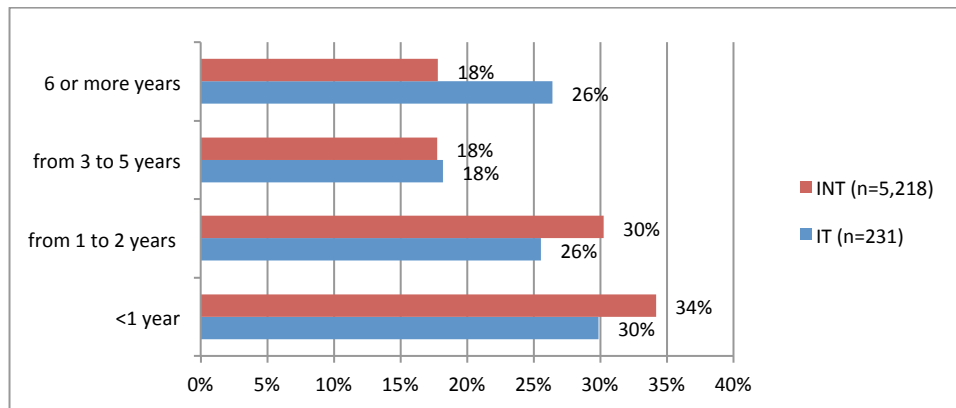
<sup>111</sup> Significance test: Pearson's chi-square; level of significance p<0.05

## 9. ACTIVE ENTREPRENEURS

This chapter focuses on students that had were already active entrepreneurs at the time of the survey (i.e. they had already founded a business). They represent 4% of the Italian GUESSS sample (n=272). More precisely, 122 of them have also revealed to seriously thinking to start a new business in the near future (“serial founders”), whereas 150 of them have not reported such intention (“active founders”).

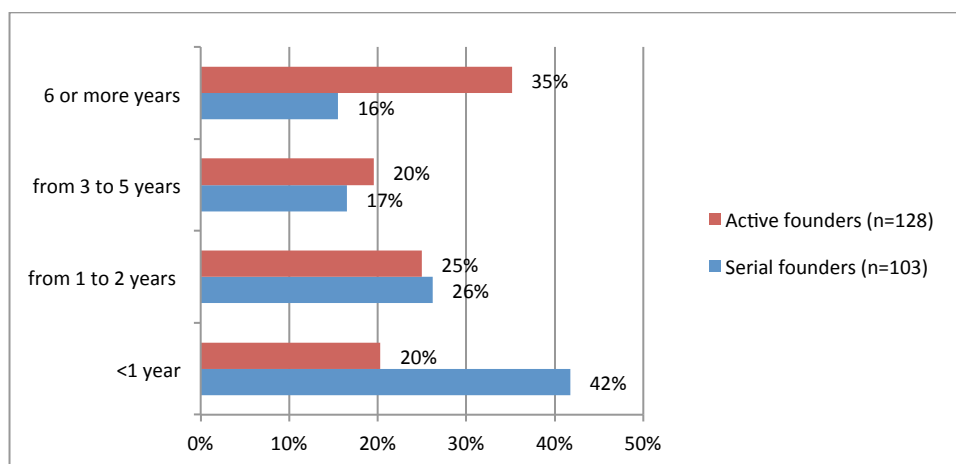
Almost one third of the founded companies has been founded in the last twelve month and more than an half in the last two years (Figure 9.1). One fourth of the companies has more than 5 years. The firms of active entrepreneurs in the international GUESSS sample are more frequently of recent foundation.

Figure 9.1: Age of founded companies in the Italian and international GUESSS samples<sup>112</sup>



On average the firms owned by serial founders are younger than the ones owned by other active founder<sup>113</sup>. This could imply a lower commitment to their already founded firm by serial founder and explain their intentions to start a new business.

Figure 9.2: Age of founded companies by class of active founders in the Italian sample<sup>114</sup>



<sup>112</sup> Excluded non applicable responses

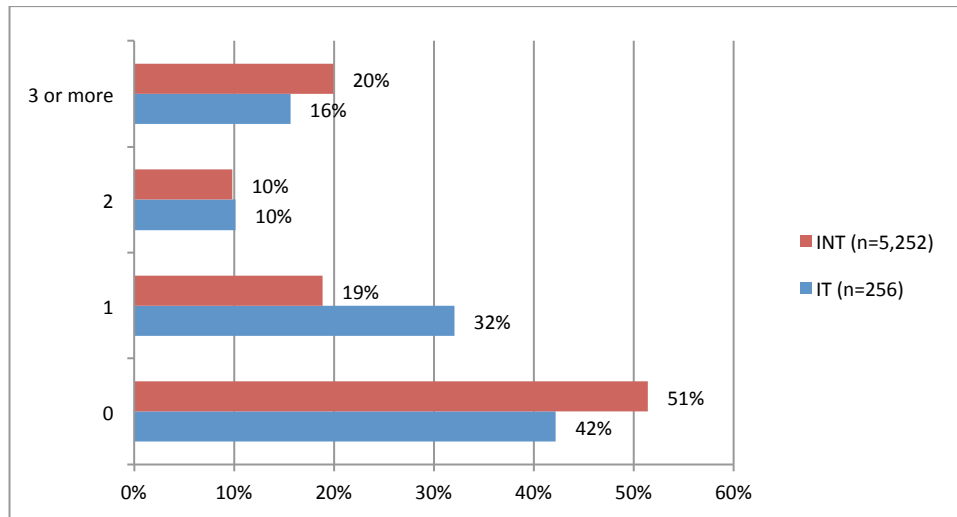
<sup>113</sup> Significance test: Pearson's chi-square; level of significance  $p < 0.005$

<sup>114</sup> Excluded non applicable responses



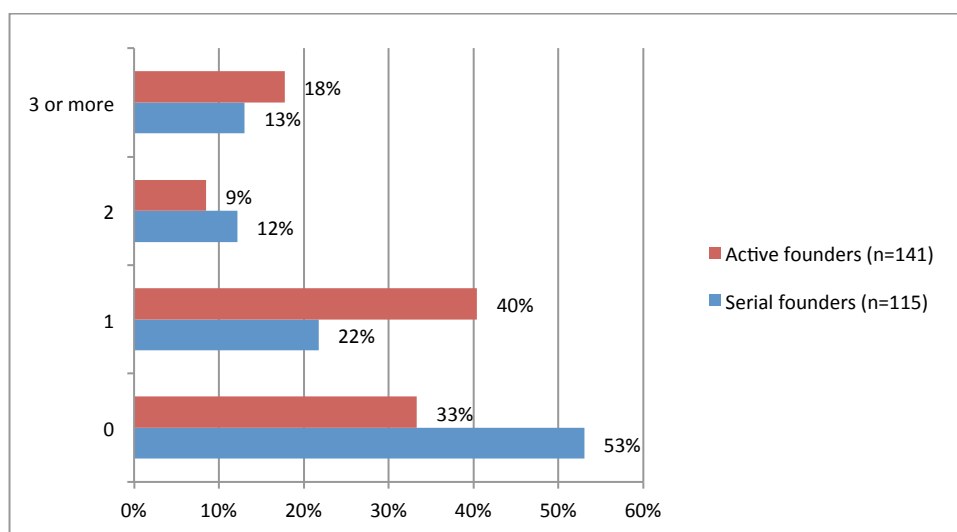
Figure 9.3 shows that only 26% of the founded companies has more than one employee in the Italian GUESSS sample, while in the international sample this figure increases to 30%<sup>115</sup>. However companies of Italian active entrepreneurs are less frequently without employees (42%) in comparison with their international counterparts (51%).

Figure 9.3: Employees of founded companies in the Italian and international GUESSS samples<sup>116</sup>



The companies of Italian students that are going to start a new business employ less people than firms owned by novice founders<sup>117</sup> (Figure 9.4). More than an half of serial founders have no employee. This could contribute to the willingness to start a new business.

Figure 9.4: Employees of founded companies by class of active entrepreneurs in the Italian GUESSS sample<sup>118</sup>



<sup>115</sup> Full Time Equivalent employee

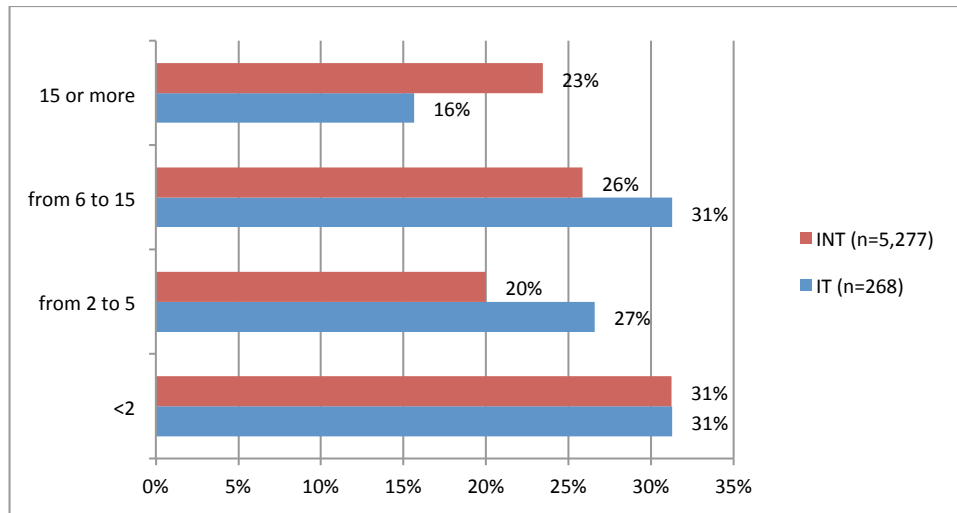
<sup>116</sup> Excluded non applicable responses

<sup>117</sup> Significance test: Pearson's chi-square; level of significance  $p < 0.005$

<sup>118</sup> Excluded non applicable responses

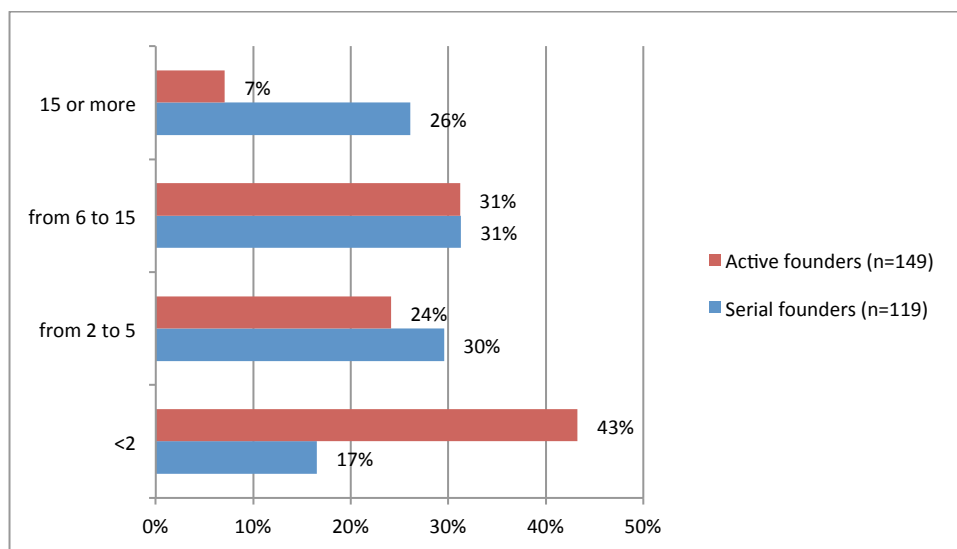
Figure 9.5 gives an overview about the growth ambitions of active entrepreneurs in the Italian sample. In five years only one third plans to have no or only one employee. Almost one half will employ more than 5 people. Only 16% intend to have at least 15 employees, whereas this figure increases to 23% in the international sample.

Figure 9.5: Forecasted employees of founded companies in the Italian and international GUESS samples<sup>119</sup>



As shown in Figure 9.6 below, job creation ambitions of serial founders for their current company are significantly larger compared to active founders<sup>120</sup>, despite the lower number of current employees. This could be explained by the greater “optimism” of serial founders (Parker, 2013).

Figure 9.6: Forecasted employees of founded companies by class of active entrepreneurs in the Italian sample<sup>121</sup>



<sup>119</sup> Excluded non applicable responses

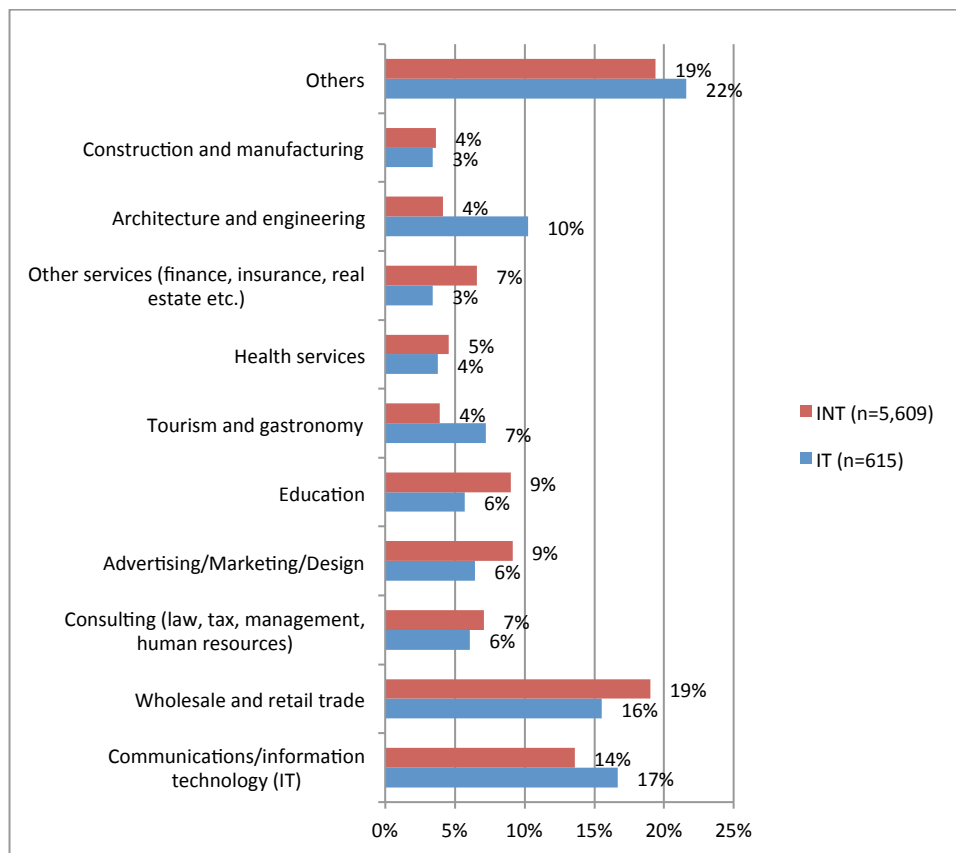
<sup>120</sup> Significance test: Pearson’s chi-square; level of significance  $p < 0.0005$

<sup>121</sup> Excluded non applicable responses

### 9.1 Industry Sector of Founded Companies

As for nascent entrepreneurs (Section 8.1) the preferred industry sectors of the active entrepreneurs are communication and information technology (17%), followed by wholesale and retail trade (16%) and architecture/engineering with 10% (Figure 9.7). It seems the already the founded companies are less represented in sectors that require higher specialization. Nascent entrepreneurs seem more inclined to found a business in IT sector (22%), architecture and engineering (13%) and health services (9% versus 4% of active entrepreneurs). In comparison with the international sample the focus on IT and architecture/engineering sectors are characteristic for the Italian sample, as already seen in Section 8.1.

Figure 9.7: Industry sector of founded companies in the Italian and international GUESS samples<sup>122</sup>

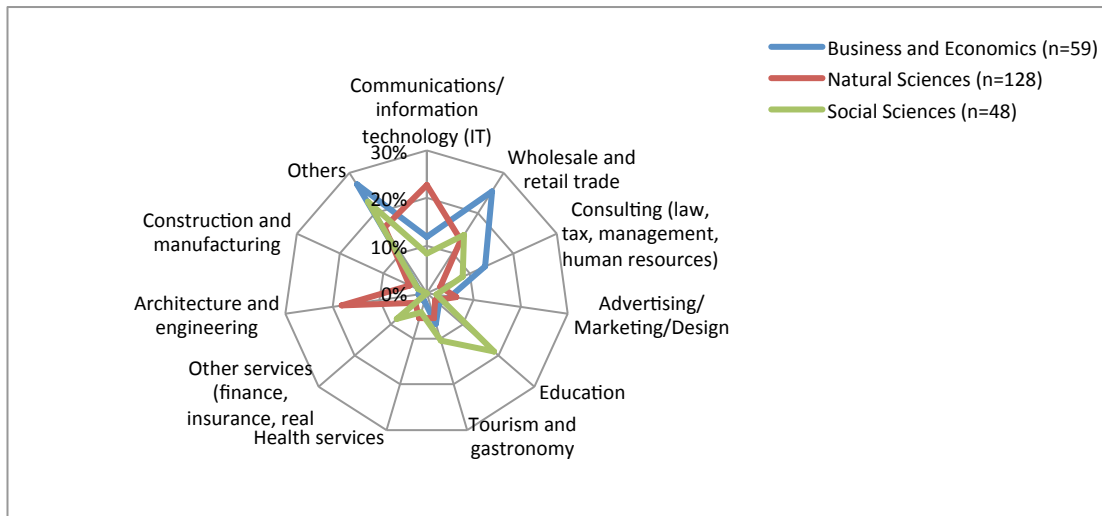


A specific analysis shows significant differences which correspond to the different main emphases of the study fields<sup>123</sup> (Figure 9.8), as seen in Section 8.1 for nascent entrepreneurs. Natural Science students rather found in the industry sectors communication and architecture and engineering industry. Business and Economics students mostly start their enterprise in the sectors wholesale and retail trade and consulting services. Social Science students are the only group that focus heavily on the sector education.

<sup>122</sup> Excluded non applicable responses

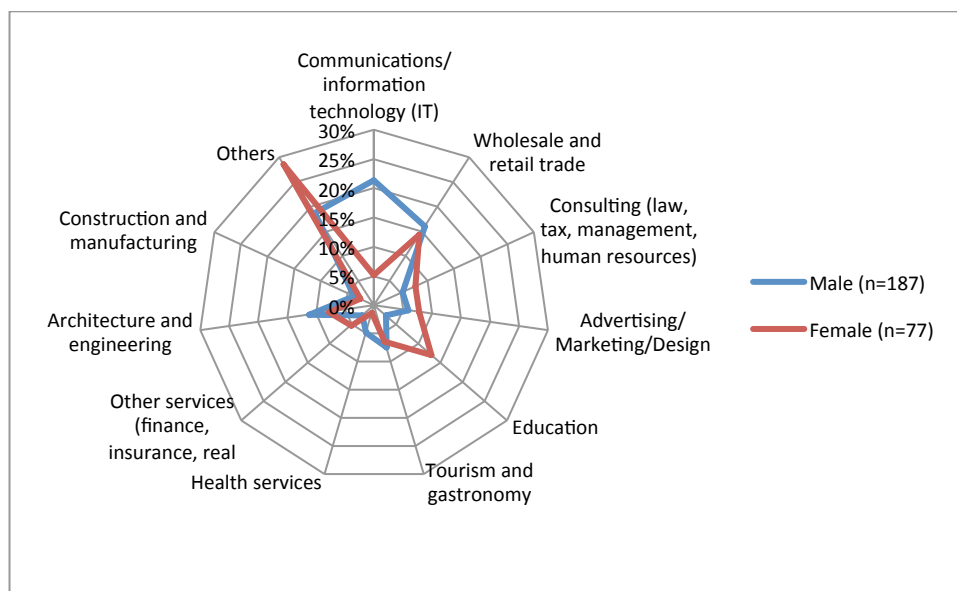
<sup>123</sup> Significance test: Pearson's chi-square: level of significance  $p < 0.0005$

Figure 9.8: Industry sector of founded companies by field of study in the Italian sample<sup>124</sup>



A gender specific analysis shows significant<sup>125</sup> differences in regard to the choice of the industry sector (Figure 9.9) as seen for nascent entrepreneurs (Section 8.1). While male students found in the sectors communication and information technology, women are far more likely to choose education. The wholesale and retail sector is a valuable option for both genders. A striking difference emerges when comparing the choice to start a business in the health sector among nascent and active female entrepreneurs. The first ones show a great interest in this industry (15% versus 7% of males) , whereas only 1% of female active entrepreneurs (versus 5% of males) provide health service.

Figure 9.9: Industry sector of founded companies by gender in the Italian sample<sup>126</sup>



<sup>124</sup> Excluded non applicable responses

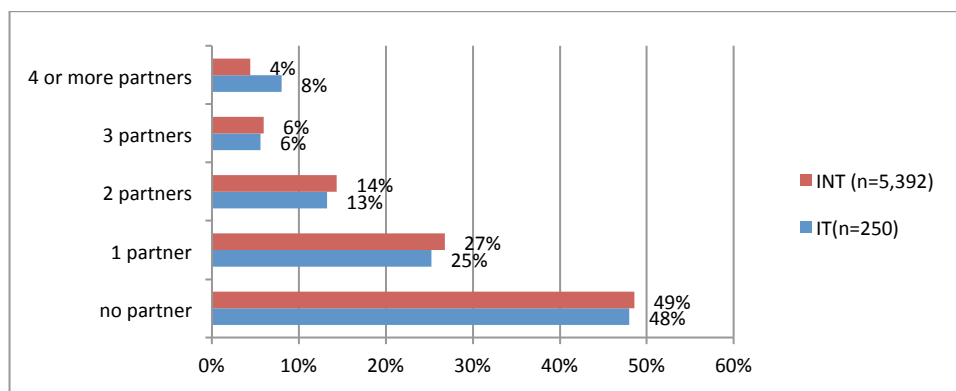
<sup>125</sup> Significance test: Pearson's chi-square: level of significance  $p < 0.0005$

<sup>126</sup> Excluded non applicable responses

## 9.2 Foundation Partners of Active Entrepreneurs

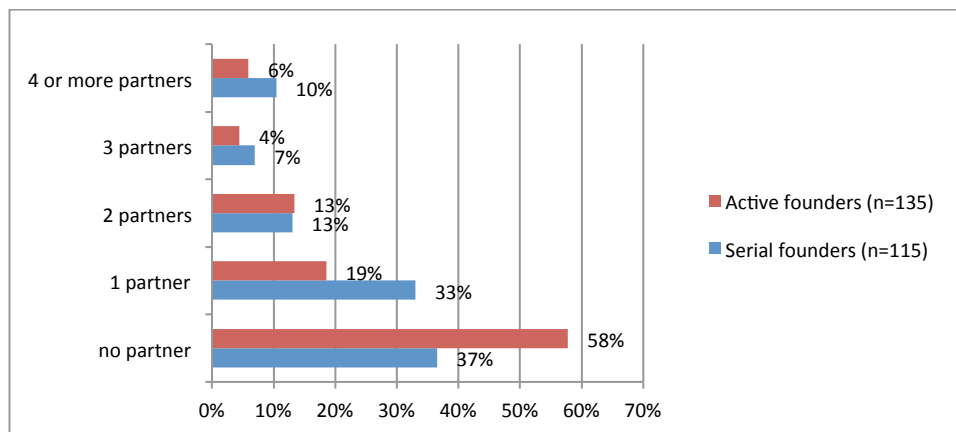
42% of the Italian active entrepreneurs own less than 50% of their company, while 36% are full owners. The ownership is more concentrated in the hands of active founders in the international sample where only 27% owns less than 50% and 44% are full owners. Almost on half of the founded companies have been started by solo-founders and one fourth with only one co-founder with weak differences between the Italian and international GUESSS samples (Figure 9.10), even if Italian founders are more likely to have a large team (4 or more partners). In comparison with nascent entrepreneurs (Section 9.2) active entrepreneurs of the Italian sample are more likely not to have co-founders<sup>127</sup> (48% against 18% of nascent entrepreneurs for the Italian sample).

Figure 9.10: Number of partners of founded companies in the Italian and international GUESSS samples<sup>128</sup>



The tendency of being solo-founder is lower for serial founders as they have no business partner only in 37% of times and 53% of times join a founding team composed by a number of members between 1 and 3 (excluded themselves).

Figure 9.11: Number of partners of founded companies by class of active entrepreneurs in the Italian sample<sup>129</sup>



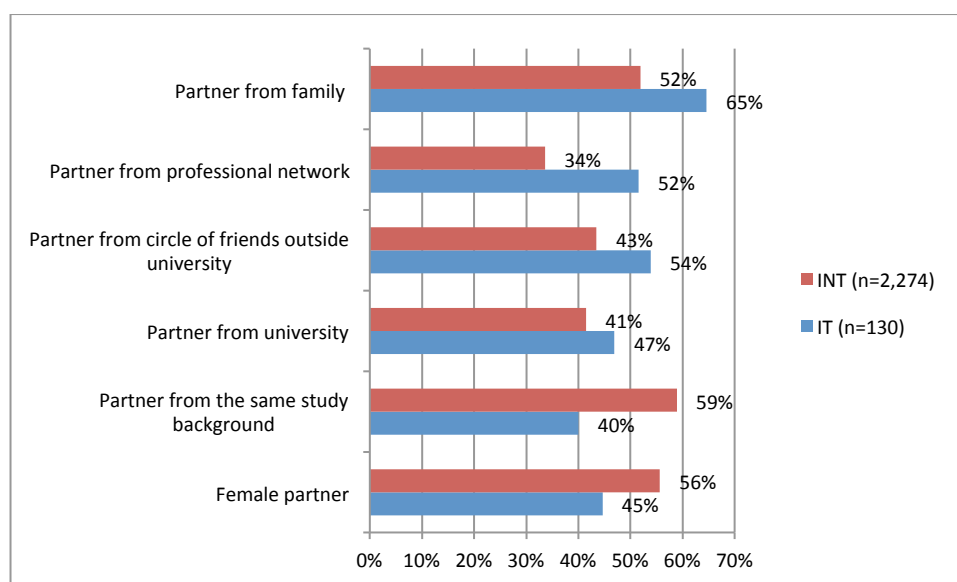
<sup>127</sup> Significance test: Pearson's chi-square: level of significance  $p < 0.01$

<sup>128</sup> Excluded non applicable responses

<sup>129</sup> Excluded non applicable responses

Most of the partners of non-solo active entrepreneurs in the Italian sample come from family (mentioned 65%) followed by circle of friends outside university (54%) (Figure 9.12). Compared to the partners of planned companies (see Section 8.2) university seems less important as a place to find partners, whereas family becomes far more relevant. Moreover only 40% of active founders have mentioned a partner with the same study background (against 57% of nascent entrepreneurs). Overall this suggest that the entrepreneurial activity of active entrepreneurs is more linked to outside the university environment. This is even more evident in a comparison with the international sample, where family, professional network and circle of friends outside university are mentioned less frequently as source of business partners, while co-founders are more likely to have the same study background. The differences in the choice of business partners between the Italian and international GUESSS sample already seen for nascent entrepreneurs in Section 8.2 seem even stronger for active entrepreneurs.

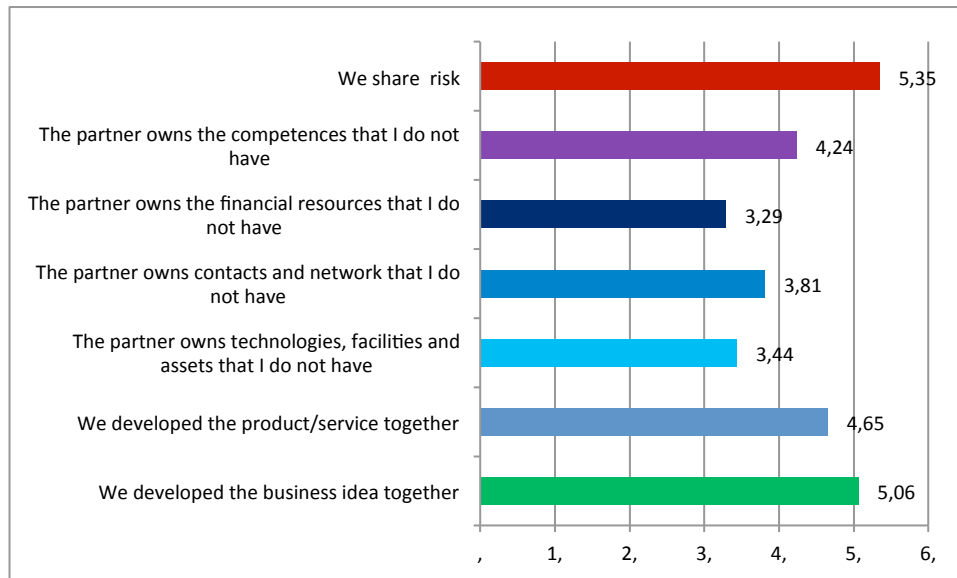
Figure 9.12: Characteristics of partners (multiple response) in the Italian and international GUESSS samples, base=non-solo active entrepreneurs<sup>130</sup>



When asked to evaluate the importance of the motives behind the choice of their partners on a 7-points Likert scale, active entrepreneurs of the Italian sample report as the most important reason sharing risk with someone else (Figure 9.13). Also tackling together the creative activities seems to be a relevant consideration in the choice of partners. Motives of secondary importance are related to getting easier access to physical and financial resources. Overall this figure is in line with the one observed for nascent entrepreneurs in section 8.2. Still the ranking of all items is lower for active entrepreneurs, suggesting a less firm belief in the choice of co-founders.

<sup>130</sup> Included not applicable responses. The percentage refers to the frequency a characteristic of the planned partner was mentioned

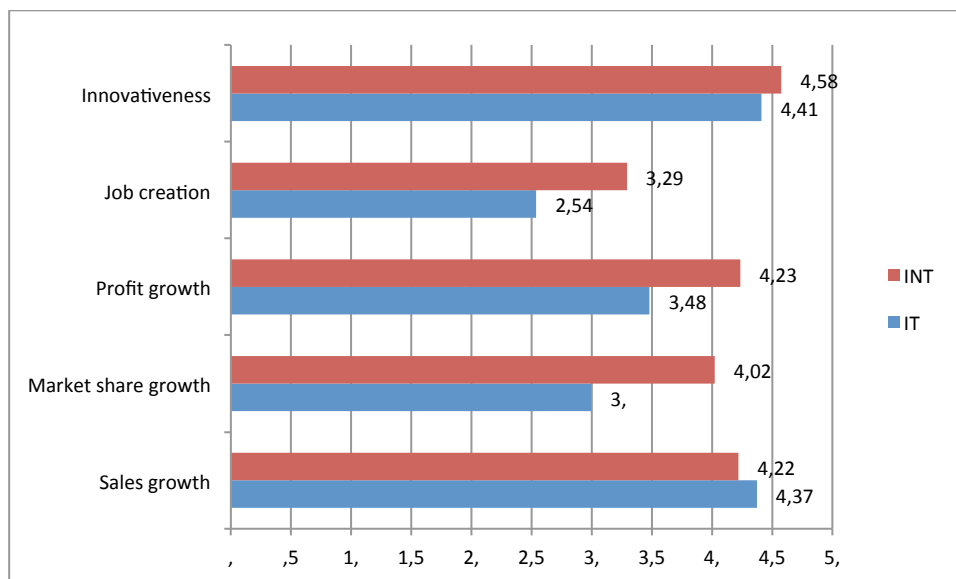
Figure 9.13: Motive for choice of partners of founded companies



### 9.3 Performance of Founded Companies

Active founders were asked to evaluate the performance of their firms on a 5-items 7-points Likert scale, taking as benchmark the competitors in their domain (Figure 9.14). Students of the Italian sample believe to have done better than competitors only with regard to innovation (4.41) and sales growth (4.37). Job creation has been ranked the worst (2.54). Active entrepreneurs outperform Italian students in all items except for sales growth. This provides Italian universities with another reason for taking care of self-employed students.

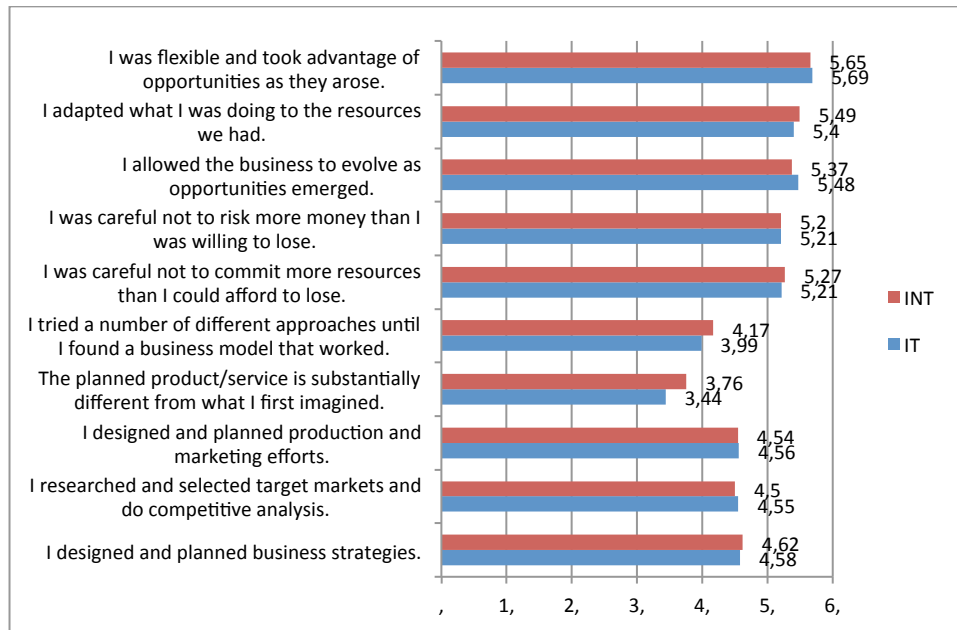
Figure 9.14: Performance of founded firms in the Italian and international GUESSS samples



### 9.4 The Foundation Process of Founded Companies

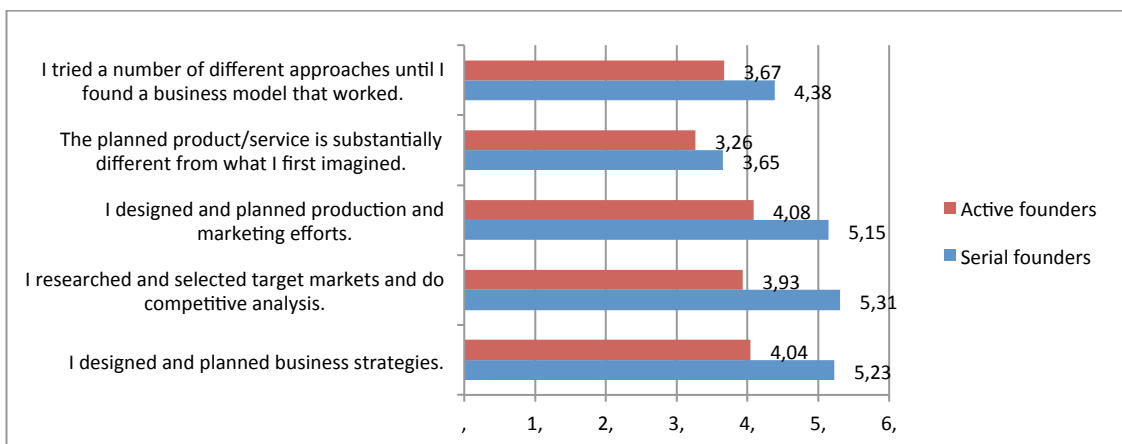
Active entrepreneurs were asked to describe the foundation process of their founded companies by evaluating their level of agreement to 10 sentences on a 7-points Likert scale (Figure 9.15). Compared to nascent entrepreneurs, they describe a less planned process and more riskier approach to resources utilization (Section 8.4). Gestation activities differs only slightly in the international sample, where founders have followed a more dynamic process to arrive to the current business model and offer.

Figure 9.15: Gestation activities in the Italian and international GUESSS samples



Among active entrepreneurs of the Italian sample, serial founders report a significantly<sup>131</sup> higher level of planning. Still the final business appears to emerge from experimentation (Figure 9.16).

Figure 9.16: Level of planning in founded business by class of active entrepreneurs in the Italian sample



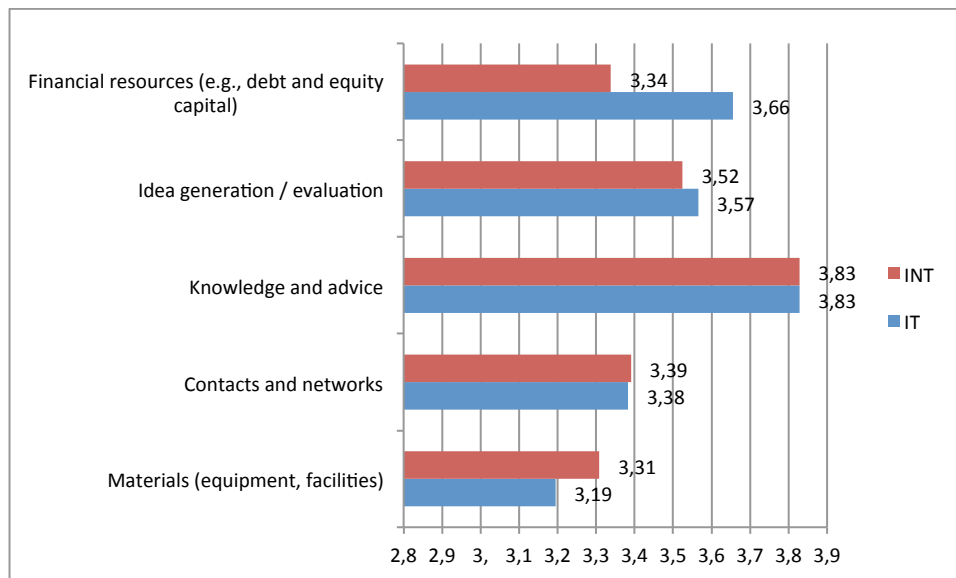
<sup>131</sup> Significance test: Univariate ANOVA; level of significance  $p < 0.005$  for all items except for *The planned product/service is substantially different from what I first imagined*; equal variances not rejected by Barlett's test



### 9.5 Family's Support to Business Foundation

Active entrepreneurs assessed the support received by their family in order to start the business on a 5-items 7-points Likert scale (Figure 9.17). As for nascent entrepreneurs (see Section 8.5) it possible to observe a scarce support provided by the family since all items are evaluated less than 4. Yet it seems that family have contributed more to business foundation of existing companies than to future firms in terms of practical help (materials in first instance, but also contacts and financial resources). The international comparison of the family support received by active entrepreneurs partially revert the findings of Section 8.5 where nascent entrepreneurs of the Italian sample report a far lower help by their relatives. In particular active entrepreneurs of the Italian GUESSS sample exhibit a stronger assistance for the acquisition of financial resources.

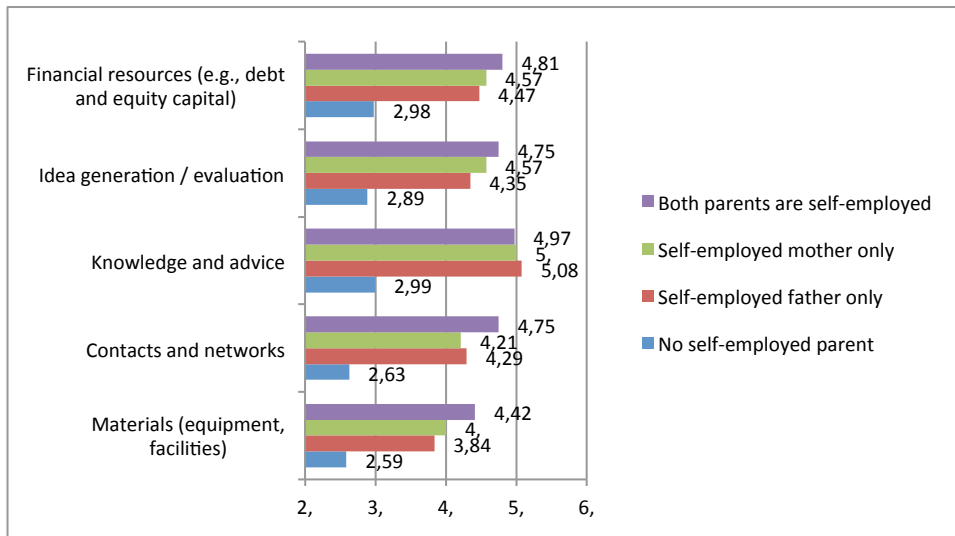
Figure 9.17: Family's support to business foundation in the Italian and international GUESSS samples



As already seen for nascent entrepreneurs (see Section 8.5) entrepreneurial background plays a central role and driver of family's support to business foundation<sup>132</sup> (Figure 9.18). For most items (financial resources, idea generation, contacts, materials) having both self-employed parents exercise the greatest influence. For the provision of financial support and help in getting the required material and in evaluating the business idea mother's self-employment was more relevant. Compared to nascent entrepreneurs mother's self-employment play a decisive role in supporting the concrete activities required to found the business.

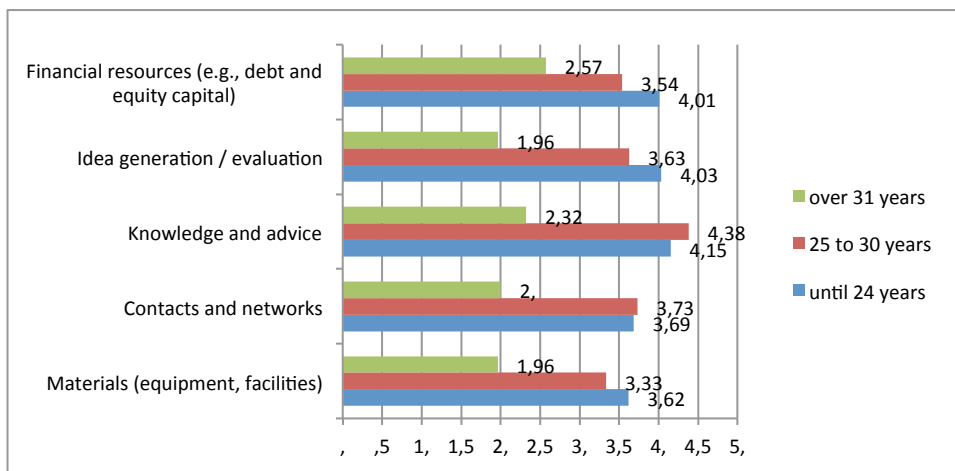
<sup>132</sup> Significance test: Univariate ANOVA; level of significance  $p < 0.0001$  for all items; equal variances not rejected by Barlett's test

Figure 9.18: Family’s support to business foundation by family background in the Italian sample



Family’s support is of greater<sup>133</sup> importance for older founders (Figure 9.15). Students over 31 years report the financial support as the most important kind of help received, whereas younger founders evaluate as more valuable the help the other aspects that were more strictly related to tasks required for business foundation.

Figure 9.19: Family’s support to business foundation by age in the Italian sample



In line with Santarelli and Tran (2013) family’s support seem to affect entrepreneurial success. Figure 9.20 shows that family’s support is positively related with the number of people employed by students’ companies<sup>134</sup>. This holds not only for concrete aspects of business foundation (financial resources, contacts, materials) but also for the activities related to idea formation and business planning.

<sup>133</sup> Significance test: Univariate ANOVA; level of significance  $p < 0.05$  for all items; equal variances not rejected by Barlett’s test

<sup>134</sup> Significance test: Univariate ANOVA; level of significance  $p < 0.05$  for all items; equal variances not rejected by Barlett’s test

Figure 9.20: Family’s support to business foundation by firm’s size in the Italian sample<sup>135</sup>

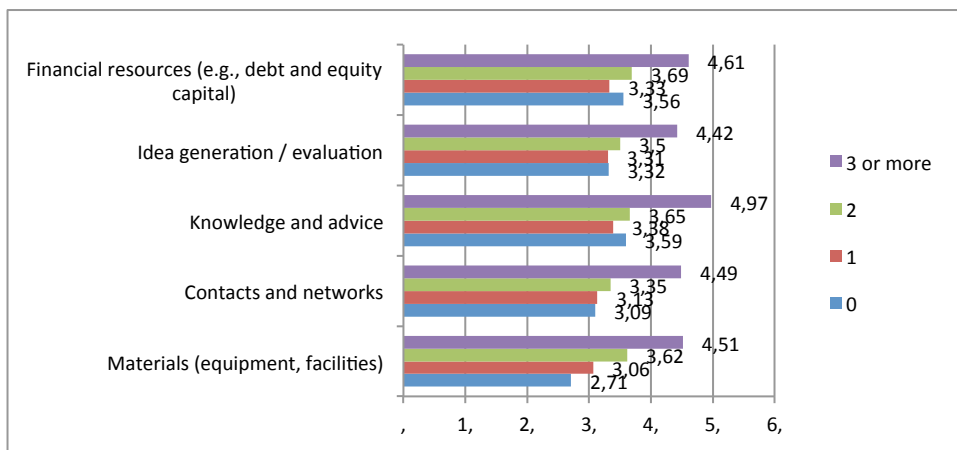
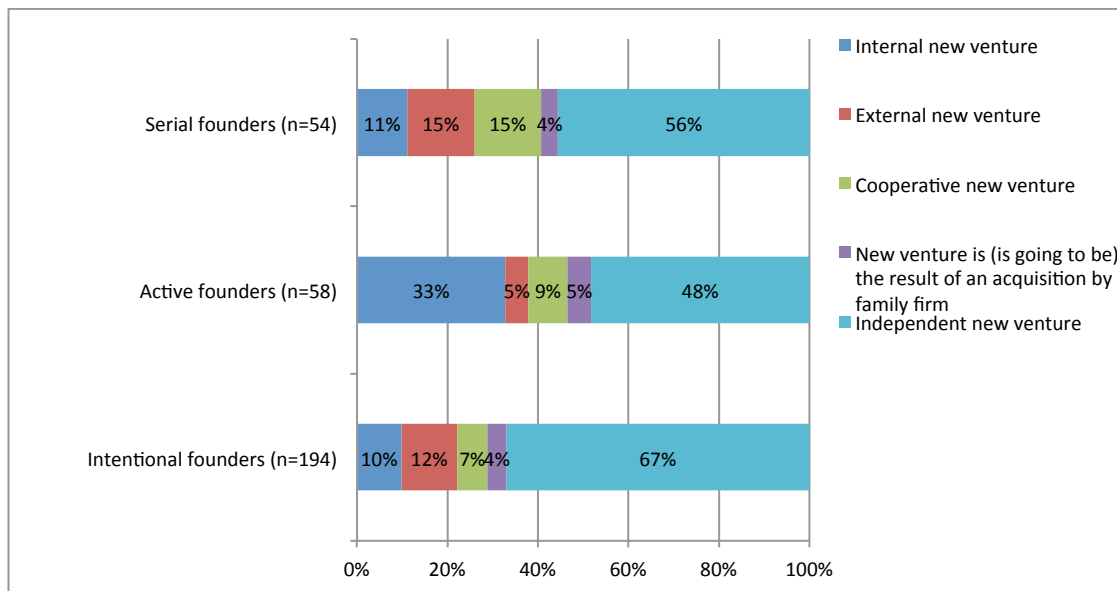


Figure 9.21 shows significant<sup>136</sup> differences among various class of founders concerning the relationship of founded (or to be-founded) companies with parents’ family firm. About two third of nascent entrepreneurs plan to found their business independently from parents’ company, whereas more than an half of active entrepreneurs has founded a company that is somehow related with family firm. More precisely one third of founded companies are internal new venture. This suggests that the entrepreneurial experience of students that have already started a business is more related to their family environment rather than to the university context. This is also reflected also in the choice of co-founders (see Section 9.2).

Figure 9.21: Relationship of founded companies with family firm by class of founders in the Italian sample<sup>137</sup>



<sup>135</sup> As number of Full-Time-Equivalent employees

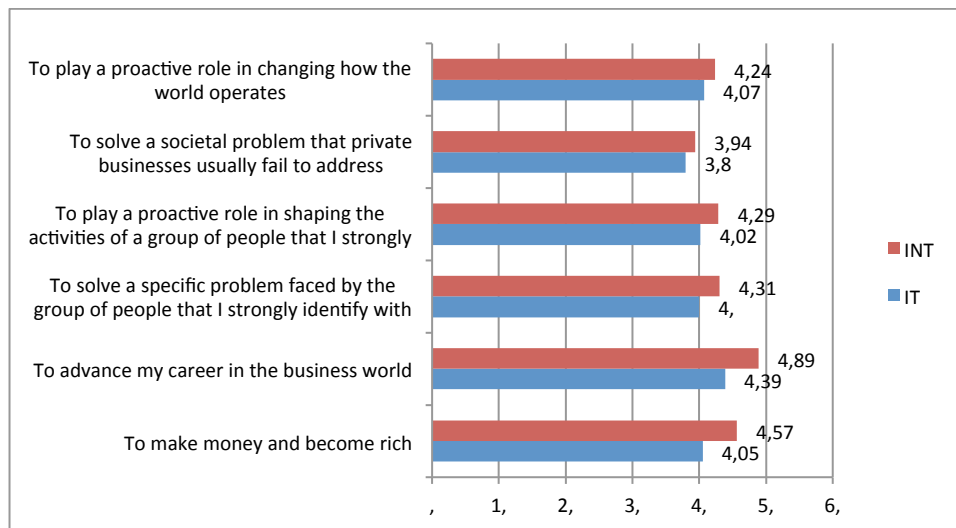
<sup>136</sup> Significance test: Pearson’s chi-square; level of significance  $p < 0.005$

<sup>137</sup> Base=founders with at least one self-employed parents and/or majority shareholders; excluded not applicable responses

### 9.6 Motives and Goals of Active Entrepreneurs

The motives and goals behind the decision to start a business were assessed by active entrepreneurs on a 7-points Likert scale. As for nascent entrepreneurs of the Italian sample (see Section 8.6) the most important motive is related to the opportunity to advance the career in the business world (4.39). The profit goal deserves a similar importance to other non-profit motives (Figure 9.22), whereas it is the least relevant motive for nascent entrepreneurs. Overall active entrepreneurs seem to be less motivated than nascent entrepreneurs. This becomes even more evident comparing the strength of Italian founders' motives with the international sample, where motivation is higher especially for personal-related items such as advance career and become rich.

Figure 9.22: Motives to found the business in the Italian and international GUESSS samples



The importance assigned to personal and societal goals differs significantly by field of study, ownership, firm's actual and future size and among serial and novice founders in the Italian sample. As seen for intentional founders in Section 8.6 students from Business and Economics are more interested in advancing the own career in the business world, whereas students of Social Sciences are less driven by personal motives<sup>138</sup>. Solo-owners seem to be less affected by societal motivation compared to founders that do not fully own the company<sup>139</sup>. Larger firms in terms of number of Full Time Employees have been founded by students whose motives were more personal and profit-driven<sup>140</sup>. Figure 9.20 shows that serial

<sup>138</sup> Significance test: Univariate ANOVA; level of significance  $p < 0.05$  for *To make money and become rich* and *To advance my career in the business world*; equal variances not rejected by Barlett's test

<sup>139</sup> Significance test: Univariate ANOVA; level of significance  $p < 0.01$  for *To play a proactive role in shaping the activities of a group of people that I strongly identify with*; *To solve a societal problem that private businesses usually fail to address* and *To play a proactive role in changing how the world operates*; equal variances not rejected by Barlett's test

<sup>140</sup> Significance test: Univariate ANOVA; level of significance  $p < 0.05$  for *To make money and become rich* and *To advance my career in the business world*; equal variances not rejected by Barlett's test

entrepreneurs are more motivated than other active founders<sup>141</sup>. This difference becomes larger for social and non-profit motives, which is in line with the enthusiasm required to serial entrepreneurs to start new firms (Parker, 2013).

Figure 9.23: Motives to found the business by class of active founders in the Italian sample

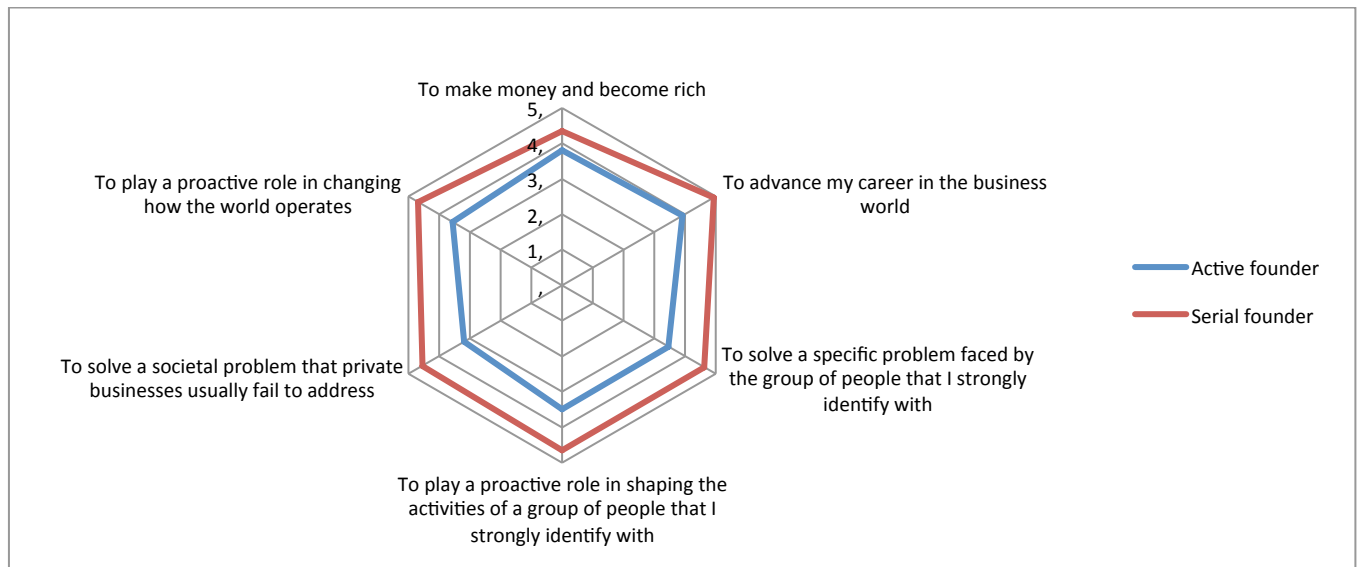


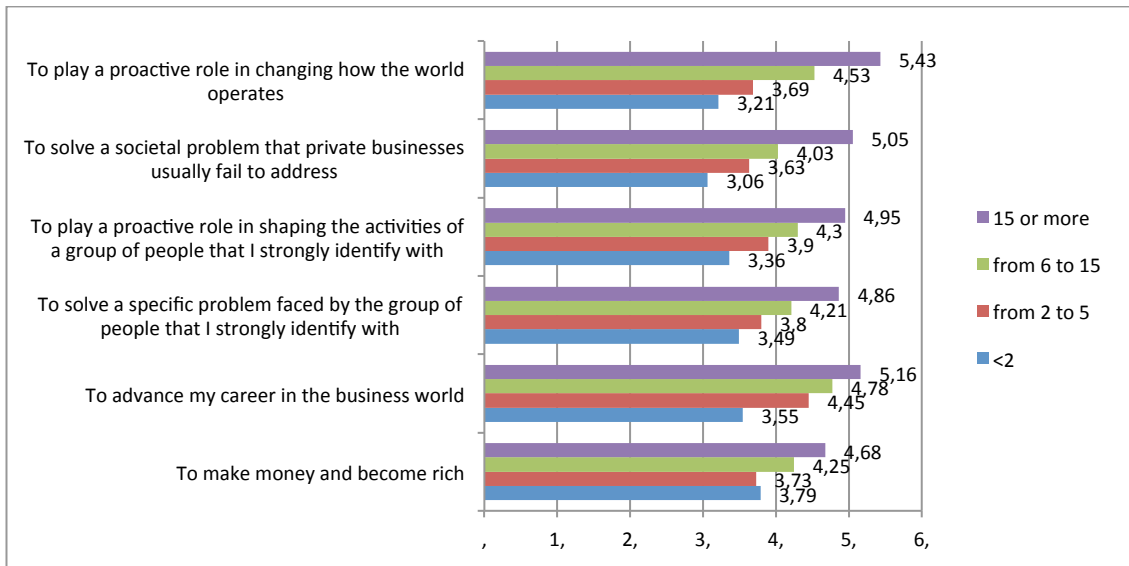
Figure 9.24 shows that more ambitious entrepreneurs are more motivated in all items<sup>142</sup>. In particular founder that plan to have at least 15 employees in 5 years are motivated mostly by the possibility to play a proactive role in changing the world rather than the mere personal motive of advance their career. As pointed out by Burke et al. (2002) an entrepreneur who is highly motivated by non-profit objectives may exert greater entrepreneurial effort in the business venture.

Figure 9.24: Motives to found the business by growth ambitions<sup>143</sup> in the Italian sample

<sup>141</sup> Significance test: Univariate ANOVA; level of significance  $p < 0.0001$  for all items except for *To make money and become rich* ( $p < 0.05$ ); equal variances not rejected by Barlett's test

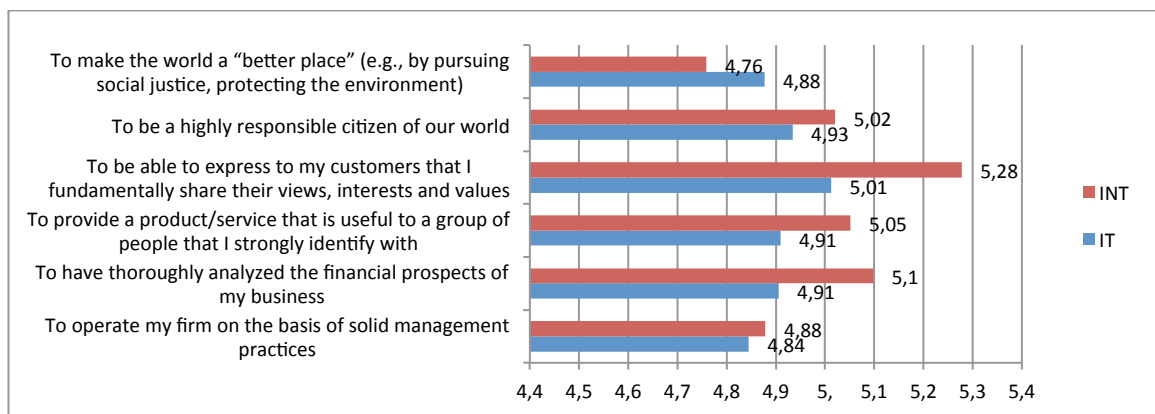
<sup>142</sup> Significance test: Univariate ANOVA; level of significance  $p < 0.01$  for all items except for *To make money and become rich* ( $p < 0.10$ ); equal variances not rejected by Barlett's test

<sup>143</sup> As the number of firm's employees forecasted in 5 years



The objectives as business founders of active entrepreneurs are similar to the ones of nascent entrepreneurs (see Section 8.6) with high focus on customers and operating environment (Figure 9.25). Yet compared to nascent entrepreneurs, students that already own a company report lower strength for all the objectives, as already observed for motives to choose a partner and to start a business. In an international comparison the strength of the objectives as business founders in the Italian sample are lower for all items except for the societal goal to make the world a “better place”.

Figure 9.25: Objectives as business founders in the Italian and international GUESSS samples

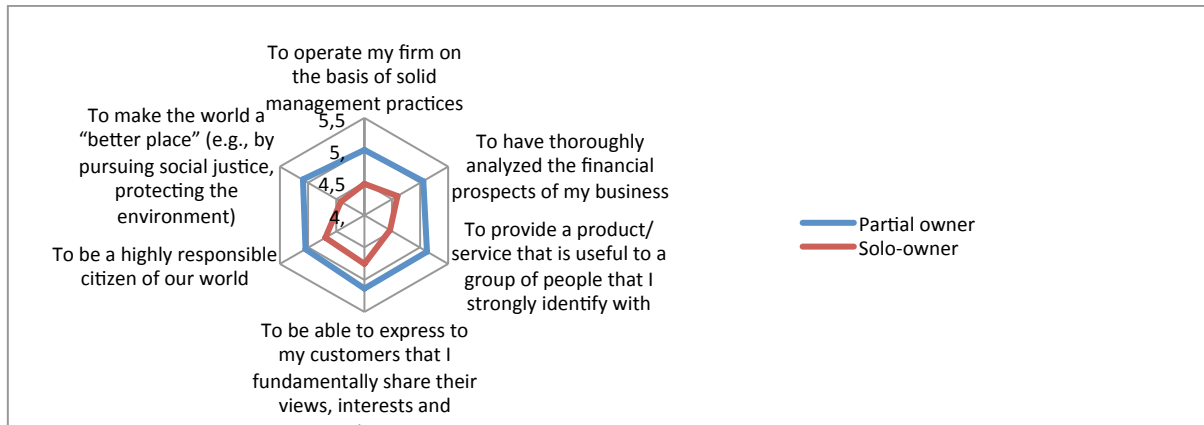


Solo-owners of the Italian sample report weaker<sup>144</sup> objectives as business founders compared to founders that share their ownership, suggesting that having some business partners helps to motivate and

<sup>144</sup> Significance test: Univariate ANOVA; level of significance  $p < 0.05$  for all items except for *To be able to express to my customers that I fundamentally share their views, interests and values* and *To be a highly responsible citizen of our world* ( $p > 0.10$ ); equal variances not rejected by Barlett’s test

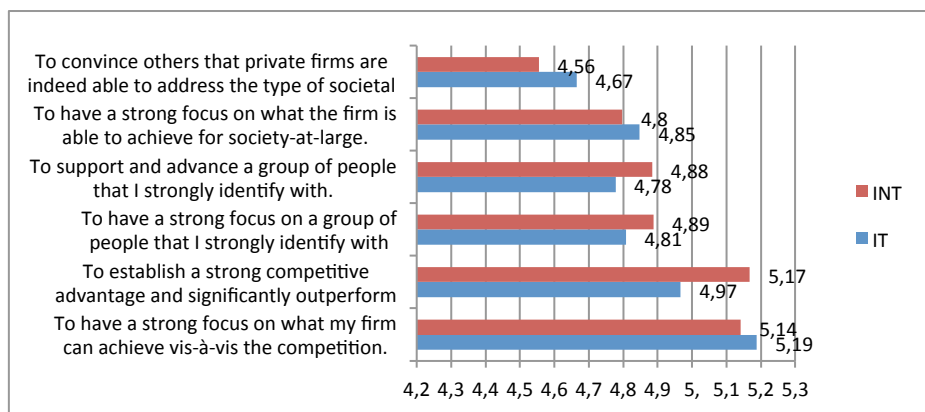
stimulate founders (Figure 9.26). Also growth ambitions play a significant role in enhancing the perceived strength of founder’s objectives<sup>145</sup>.

Figure 9.26: Objectives as business founders by ownership structure



In the Italian sample the goals to be pursued in managing the founded company (Figure 9.27) are similar to the ones of nascent entrepreneurs, despite of lower strength (see Section 8.6) with the main focus on beating competitors. Compared to nascent entrepreneurs active entrepreneurs seem to be less concerned about what they can achieve for the whole society. In an international comparison the goals of Italian founders are more focused on addressing societal needs and on outperforming competitors. A specific analysis shows that the factors related to stronger motives and objectives as business founders are also associated to an higher commitment as manager of founded companies in the Italian sample. In particular founders that share their business with partners, that have larger growth ambitions and that are planning to start a new business are more<sup>146</sup> engaged in pursuing the management objectives.

Figure 9.27: Goals to be pursued in managing the future company in the Italian and international GUESS samples



<sup>145</sup> Significance test: Univariate ANOVA; level of significance  $p < 0.05$  for all items except for *To provide a product/service that is useful to a group of people that I strongly identify with* ( $p > 0.10$ ); equal variances not rejected by Barlett’s test

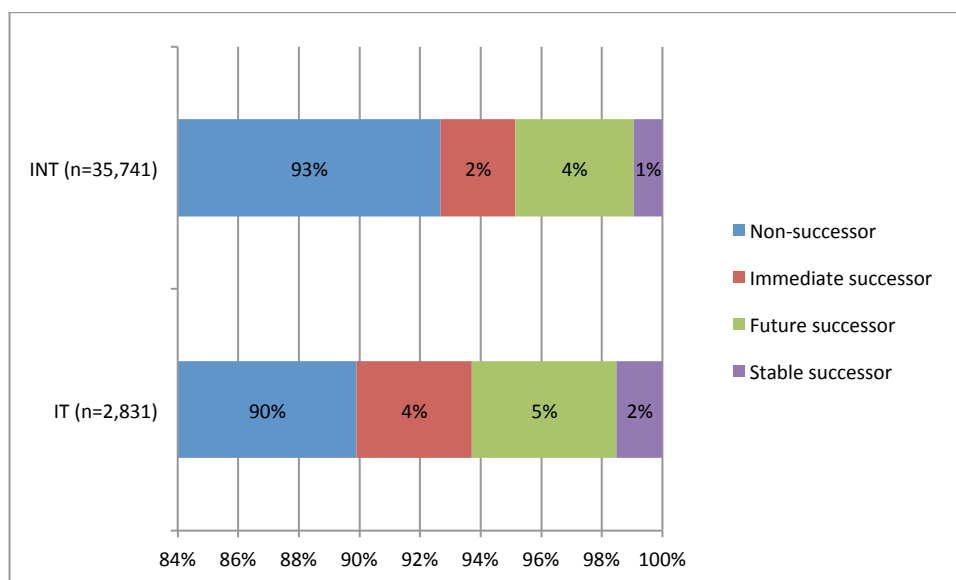
<sup>146</sup> Significance test: Univariate ANOVA; level of significance  $p < 0.05$  for all items; equal variances not rejected by Barlett’s test

## 10. INTENTIONAL SUCCESSORS

The present chapter focuses on intentional successors, students that intend to take over parent's family firm. The question whose responses will be presented in the following sections were targeted to students that had at least one self-employed and/or majority shareholder parent (i.e. "potential successors"). The GUESSS survey has dedicated particular attention to intentions of potential successors. As pointed out by Zellweger et al. (2011., p.521) "we lack an understanding of the antecedents to career choice intentions of successors" and "investigating the motives that drive students with a family business background to become a successor versus to become a founder or an organizational employee is highly pertinent, given the worldwide social and economic relevance of family firms" (p.522).

For the scope of the present report potential successors are classified into three groups: "non-successors" are students that do not aim to take over parents' firm right after studies or five years after graduation; "immediate successors" aim to take over parents' firm right after studies, but they plan a different career in the long term; "future successors" plan to succeed the family firm only five years after graduation; finally "stable successors" choose family succession as career path both right after studies and 5 years after graduation. In the Italian GUESSS sample more than a third of respondents (36% or 2,831 students) are potential successors. Of these ones 10% is planning to succeed parents' family firm (Figure 10.1). More precisely, 4% are immediate successors, 5% are future successors and 2% are stable successors. The fraction of potential successors is lower in the international sample (33%) and Italian potential successors are more likely to intend to succeed family firm than their international colleagues suggesting that entrepreneurial family background could be a valuable asset to be exploited in order to foster entrepreneurial intentions of Italian students. In particular, among Italian successors it is more frequent to take over parents' company right after studies and to choose another career path as long term option.

Figure 10.1: Potential successors in the Italian and international GUESSS samples



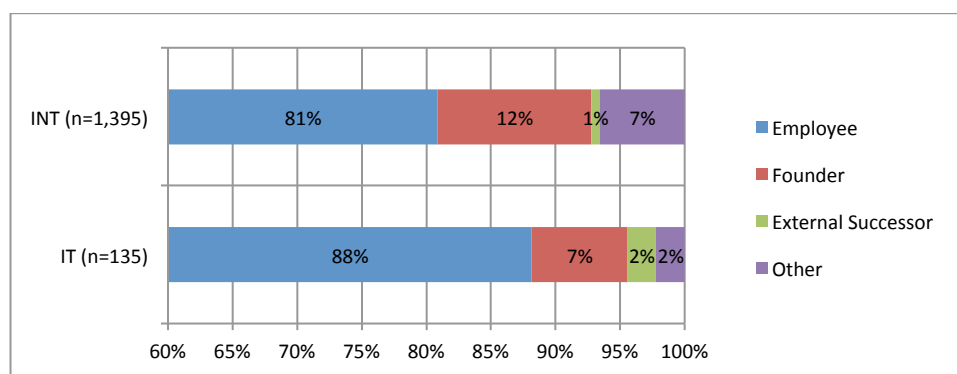


The remainder of the present Chapter is aimed to illustrate the characteristics of the various classes of successors and the drivers of succession intentions.

### 10.1 Profile of Intentional Successors

Looking in detail to the career attitudes of potential successors of the Italian sample (Figure 10.2) it is possible to observe that most of the future successors (88%) plan to start their career as employees and that only 7% want to found a business before taking over parents' firm. In the international sample it is more frequent to have entrepreneurial experience as founder (12%) before succeeding the family company.

Figure 10.2: Career path right after studies of future successors in the Italian and international GUESS samples



In the Italian sample more than an half of immediate successors (62%) intend to found an own business after having acquired experience in managing the family firm (Figure 10.3) in line with the international sample. Overall Figures 10.2 and 10.3 suggest that students prefer to make some working experience before running their family firm or starting a venture. Working in parents' firm may represent an opportunity to get the entrepreneurial skills not obtained from studies. There are also students that do not feel ready to be self-employed in the family firm right after studies. This leads intentional successors to try a career as employee, especially in the Italian sample. For these students founding a company before taking over parents firm seems more difficult than for their international colleagues. However a specific entrepreneurial experience could be more valuable for the purpose of managing parents' company given the acknowledged positive impact of managers' start-up experience on firm's success (Santarelli and Tran, 2013). Italian universities should provide more practical training in order to ease the succession process of these students. Further, educational institutions should exploit the Italian resource of having students with an entrepreneurial family background. Family succession should deserve attention in management and entrepreneurial courses in order to provide potential successors with the required skills to take over parents' company.

Figure 10.3: Career path five years after graduation of immediate successors in the Italian and international GUESSS samples

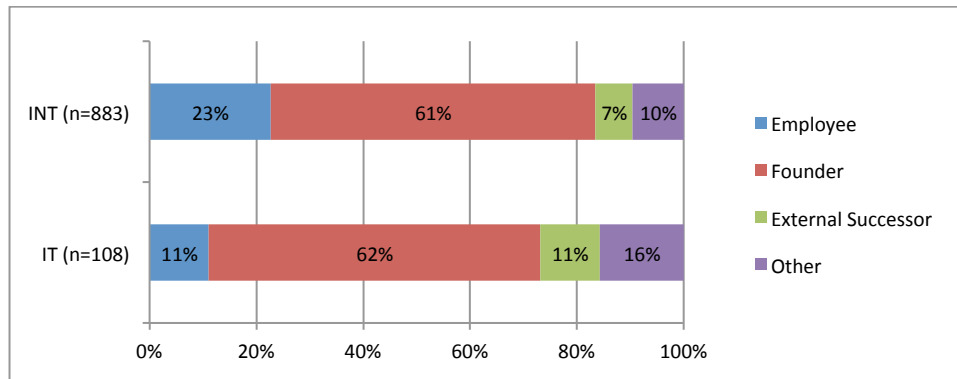
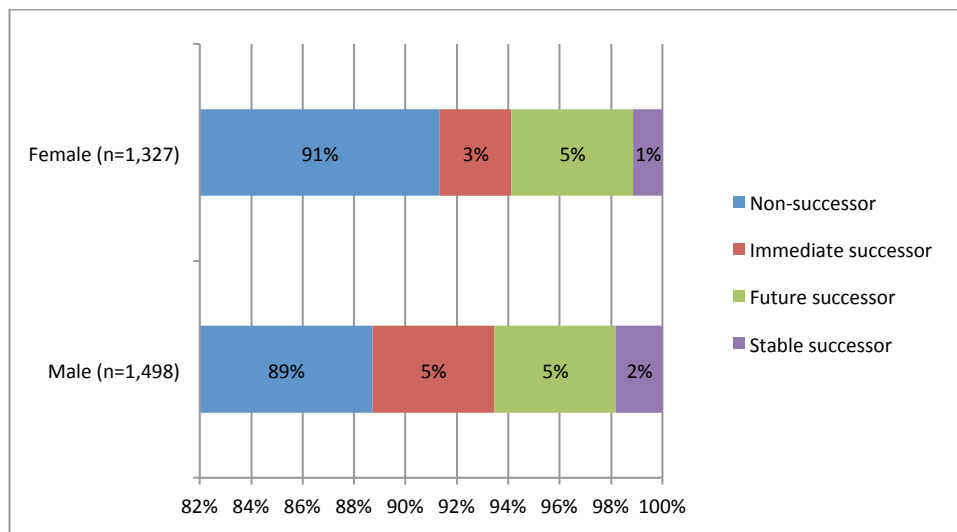


Figure 10.4 shows that male and female students differ only weakly<sup>147</sup> in terms of succession intentions in the Italian sample. However males seems to be more inclined to take over parents' firm immediately after studies compared to females.

Figure 10.4: Succession intentions by gender in the Italian sample<sup>148</sup>

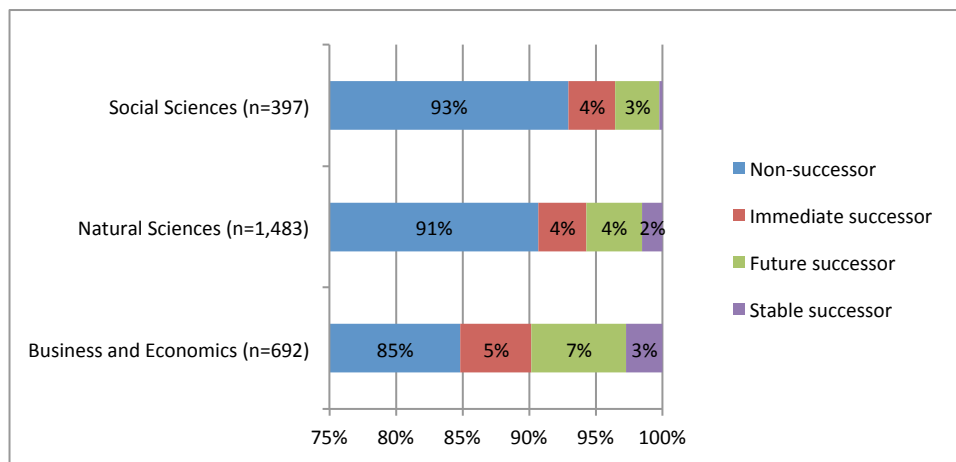


Significant differences<sup>149</sup> in terms of succession intentions are found comparing students from various study fields. In particular students of Business and Economics are the most ready to take over parents' firm and to manage it in the long run (Figure 10.5), followed by students of Natural Sciences.

<sup>147</sup> Significance test: Pearson's chi-square; level of significance  $p < 0.05$

<sup>148</sup> Excluded not applicable responses

<sup>149</sup> Significance test: Pearson's chi-square; level of significance  $p < 0.0005$

Figure 10.5: Succession intentions by field of study in the Italian sample<sup>150</sup>

### 10.2 General Information about the Family Business

In the Italian sample 88% of the families of potential successors has owned only one firm; 9% has owned two companies and only about 3% has owned 3 or more firms.

On average family firms has been owned by parents for 23 years. More precisely 21% of parents' companies have been owned for less than 10 years, 62% from 10 to 30 years and 16% for more than 30 years. The history of Italian family firms is longer than in the international sample where the average time of ownership is only 16 years. A specific analysis shows that the longer the family firm has been owned by parents the more likely students will choose succession<sup>151</sup>. Potential successors whose parents' family firm has been owned for more years are more likely to have succession as long term career option. In particular students who decide to take over parents' family firm right after studies and to maintain this position come from families that on average have owned the company for largest share amount of time (28.5 years). Ownership time decreases to 26.9 years for future successors; 24.8 for immediate successors and 22.4 years for non-successors. The longer ownership of parents' firm may create a stronger commitment to preserve the family asset and could explain why Italian students are more inclined to succeed the family company.

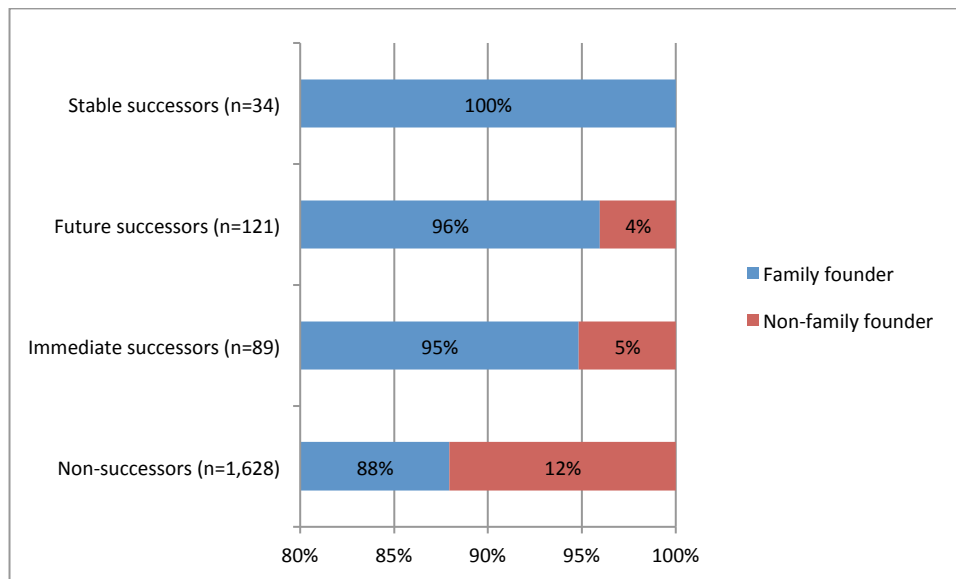
89% of Italian family firms have been founded by a family member (compared to 85% of the international sample). As shown in Figure 10.6 this has positive effect on succession intentions<sup>152</sup>. Students are more inclined to take over parents' firm if it has been founded by a family member. This could be due to a greater attachment to the parents' company.

Figure 10.6: Succession intention by type of founder of parents' firm in the Italian sample

<sup>150</sup> Excluded not applicable responses

<sup>151</sup> Significance test: Pearson's chi-square; level of significance  $p < 0.0005$

<sup>152</sup> Significance test: Pearson's chi-square; level of significance  $p < 0.001$



In the Italian sample parents of potential successors are actively involved in the operations family firms most of times (94% versus 91% of the international sample) and are CEO of more than three fourths of times (78% versus 80% of the international sample). On average 76% of the equity of parents' firm is owned by the family (81% in the international sample). More precisely, 55% of the companies are fully owned by the family and 16% are owned by more than 50%.

On average parents' firms have about 11 Full Time Equivalent employees. More than a third of the companies (37%) has no or only one employee; 53% of the firms employ from 2 to 15 people and only 3% more than 50 people. Family firms of the international sample are on average far more larger than Italian ones, having on average 39 Full Time Equivalent employees.

A specific analysis shows that in the Italian sample the larger the size of parents' company the greater is the attractiveness of taking over by potential successors<sup>153</sup> as a long term career option. Family firms of stable successor on average employ 25 people, while family firms of future successors on average have 20 Full Time Equivalent employees. On the other hand companies owned by parents of immediate successors and non-successors on average employ 12 and 10 people respectively. The great difference between future and immediate successors in terms of size of parents' firm suggests that taking over a larger family firm requires a long run commitment. Among students that aspire to manage parents' firm as a long term career option, an increase of family firm's size appears to raise the probability to perform the takeover right after studies.

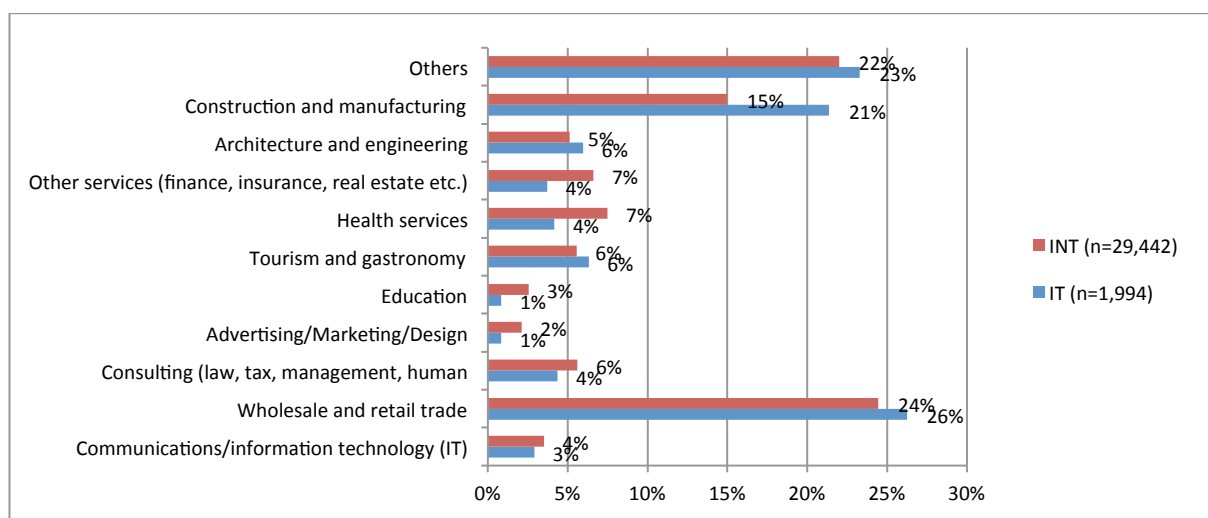
### 10.3 Industry Sector of Family Business

In the Italian sample parents' family firms belong mainly to the wholesale and retail trade sector (26%), followed by construction and manufacturing (22%). Only 6% and 3% of family companies operate in the architecture/engineering and IT sectors respectively (Figure 10.7), which are the main focus of nascent

<sup>153</sup> Significance test: Pearson's chi-square; level of significance  $p < 0.0005$

and active entrepreneurs (see Sections 8.2 and 9.2). Only the wholesale and retail trade sector is largely represented both from family businesses and companies founded by students. Overall this figure indicate that succession and founding are entrepreneurial activities that are related to different sectors of the economy. Italian family companies are less focused on IT and more active in the commercial sector in an international comparison. On the other hand Italian nascent entrepreneurs found more frequently in the IT sector and less likely in the commercial sector than their international counterparts. Moreover, compared to the international sample, Italian family firms of potential successors are far more focused on the manufacturing/construction sector, but this sector is less attractive for Italian active and nascent entrepreneurs than for the international intentional and active founders.

Figure 10.7: Industry sector of family businesses in the Italian and international GUESS samples<sup>154</sup>



A specific analysis shows that family succession is more likely to happen in certain industry sectors<sup>155</sup> (Figure 10.8). In particular in sectors that require a larger amount of specific assets such architecture/engineering and construction/manufacturing students are more inclined to succeed parents' family firm rather than founding an own business<sup>156</sup>. The large fraction of Italian family business operating in this sector could be one reason for the Italian strong succession intentions compared to the international sample. On the other hand succession is less likely in commercial sectors such tourism/gastronomy and wholesale and retail trade.

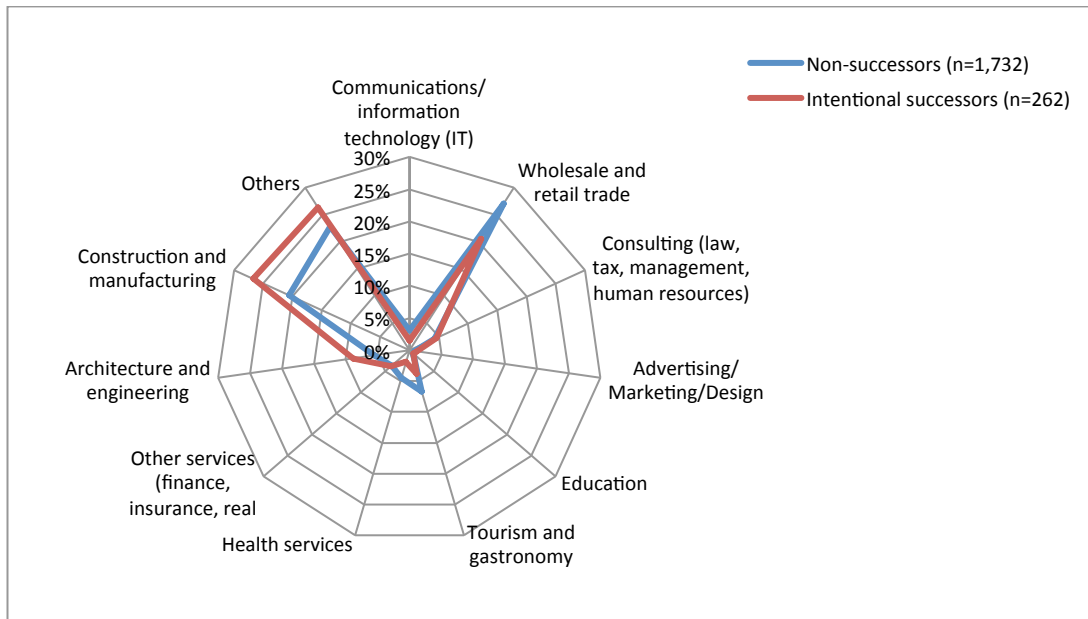
Figure 10.8: Industry sector of family businesses by succession intentions in the Italian sample<sup>157</sup>

<sup>154</sup> Excluded not applicable responses

<sup>155</sup> Significance test: Pearson's chi-square; level of significance  $p < 0.05$

<sup>156</sup> "Intentional successors" refers to students that plan to succeed parents' firm right after studies and/or five years after graduation

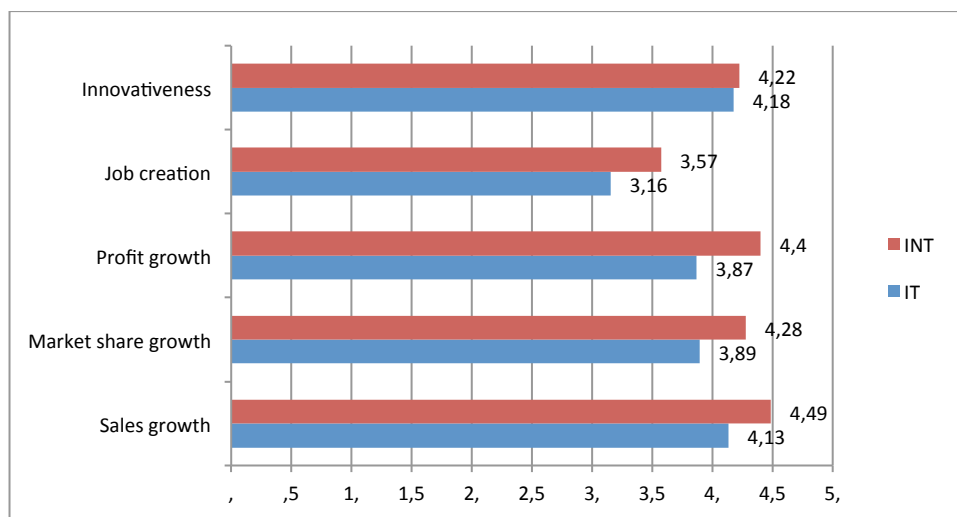
<sup>157</sup> Excluded not applicable responses



### 10.4 Performance of the Family Business

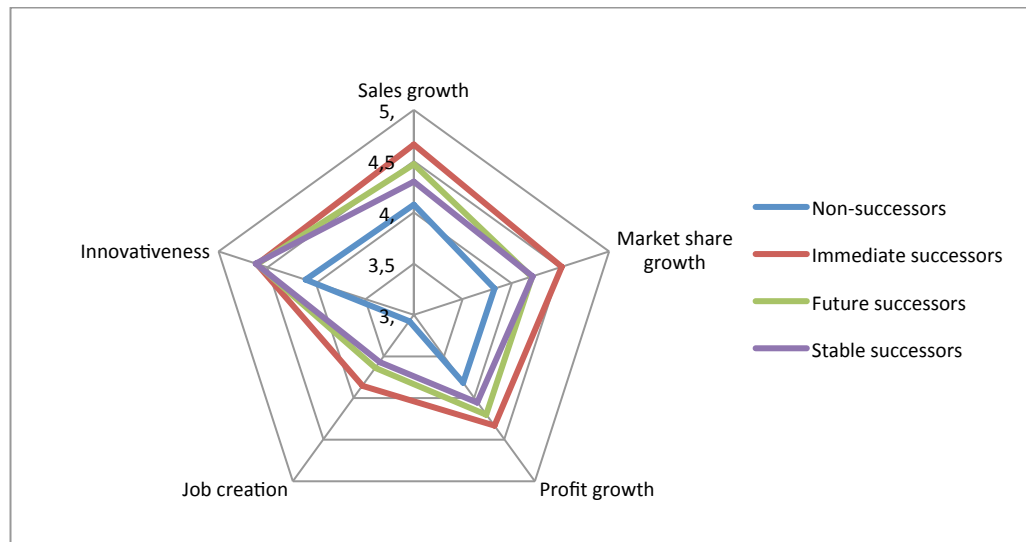
Potential successors were asked to assess the performance of parents' firm on the same 5-items 7-points Likert scale used for active entrepreneurs (Section 9.3). Overall in the Italian sample the performance of family firm taking as benchmark competitors seem to be acceptable only for innovativeness (4.18) and sales growth (4.13). Parents' companies are perceived as more successful in the international than in the Italian GUESSS sample (Figure 10.9).

Figure 10.9: Performance of family businesses in the Italian and international GUESSS samples



In the Italian sample the perceived performance of parents' firm is positively related with succession intentions<sup>158</sup> (Figure 10.10). In particular the success of family firm appears to increase the intention to perform the takeover immediately after studies.

Figure 10.10: Performance of family businesses by succession intentions in the Italian sample



### 10.5 Students' Relationship with Parents' Firm

On average potential successors of the Italian sample own 23% of the shares of parents' companies (26% in the international sample), but only 891 out of the 2,831 potential successors have answered to this question. 43% of potential successors<sup>159</sup> (n=1,976) has worked in parents' firm (38% in the international sample). More precisely students that have worked in the family firm have started at 16 years for the first time and have been working for two years on average. Such working experience seems to be positively related with succession intentions<sup>160</sup> (Figure 10.11). Still, it is not possible to find out whether working in parents' firm raises succession intention or succession intention cause students to work in the family firm in order to develop the required skills to manage the business. The second explanation seems supported by the greater likelihood of immediate successors to have worked in parents' firm. This class of successors is not particularly committed to succession as they do not intend to manage the family firm in the long run; yet they need immediately some experience in order be able to perform the takeover right after studies. Working in parents' firm could represent an opportunity to develop those practical skills the university is not able to teach.

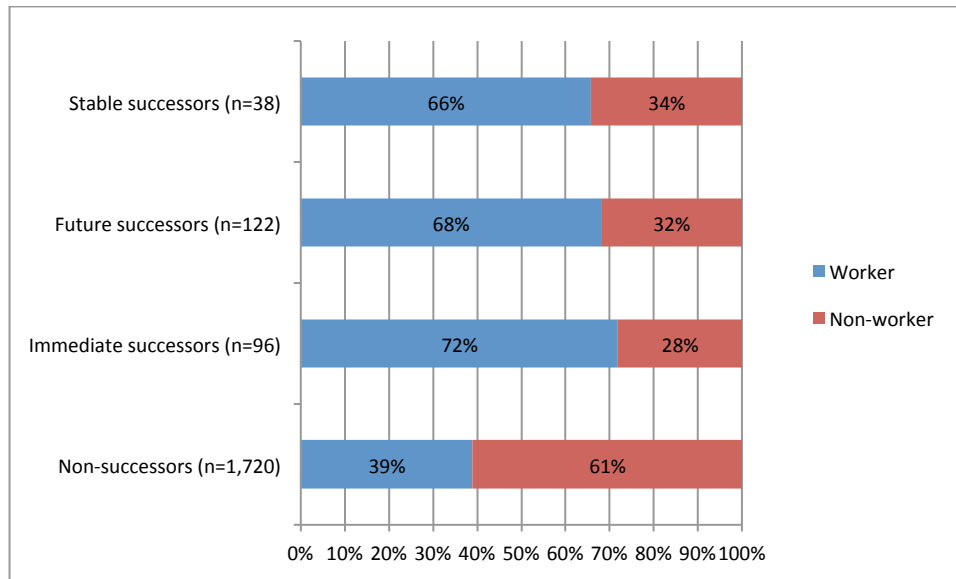
Figure 10.11: Working experience in parents' firm by succession intentions in the Italian sample<sup>161</sup>

<sup>158</sup> Significance test: Oneway ANOVA; level of significance  $p < 0.0005$  for all items; equal variances not rejected by Barlett's test

<sup>159</sup> Excluded not applicable responses

<sup>160</sup> Significance test: Pearson's chi-square; level of significance  $p < 0.0005$

<sup>161</sup> Excluded not applicable responses



Potential successors described their feelings about their parents' company on a 5-items 7-points Likert scale (Figure 10.12). On average respondents of the Italian sample report a greater emotional attachment and involvement in parents' firm, as reflected in the larger fraction of intentional successors. One reason for this could be the longer history of Italian parents' firm (see Section 10.2).

Figure 10.12: Feelings about parents' firm in the Italian and international GUESSS samples

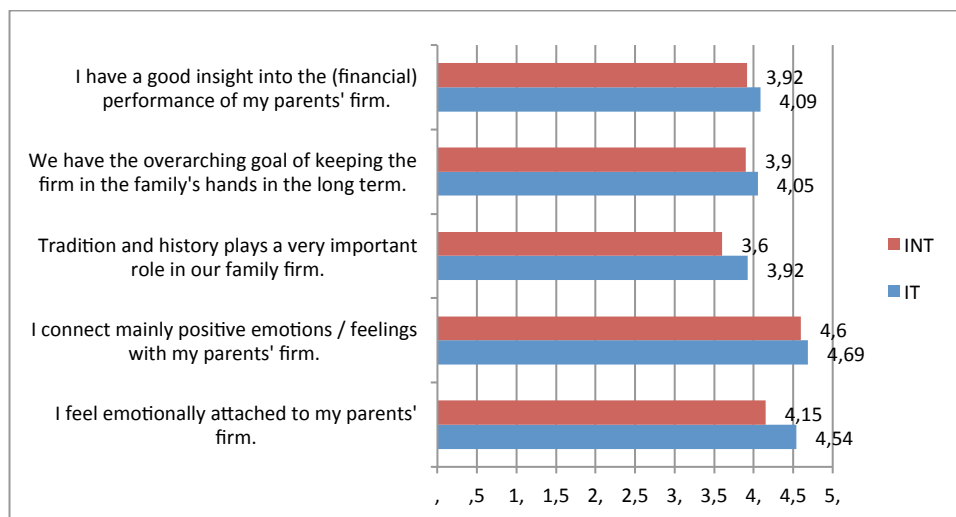


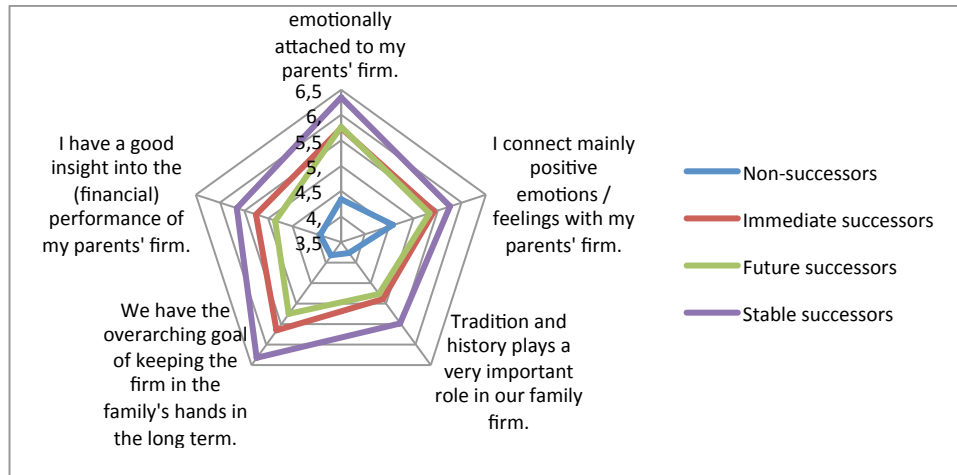
Figure 10.13 shows that succession intentions are positively related with emotional attachment and involvement in family firm<sup>162</sup>. In particular stable successors exhibit the most positive feelings about parents' firm. This justifies their unique choice of career path both right after studies and 5 years after graduation. A specific analysis shows that feelings about parents' company is positively influenced if (i) the founder is a

<sup>162</sup> Significance test: Fstar test; level of significance  $p < 0.0005$  for all items



family member<sup>163</sup>; (ii) the CEO is a parent<sup>164</sup>; (iii) the student has worked in parents' firm<sup>165</sup>; (iv) the student studies Business and Economics<sup>166</sup>.

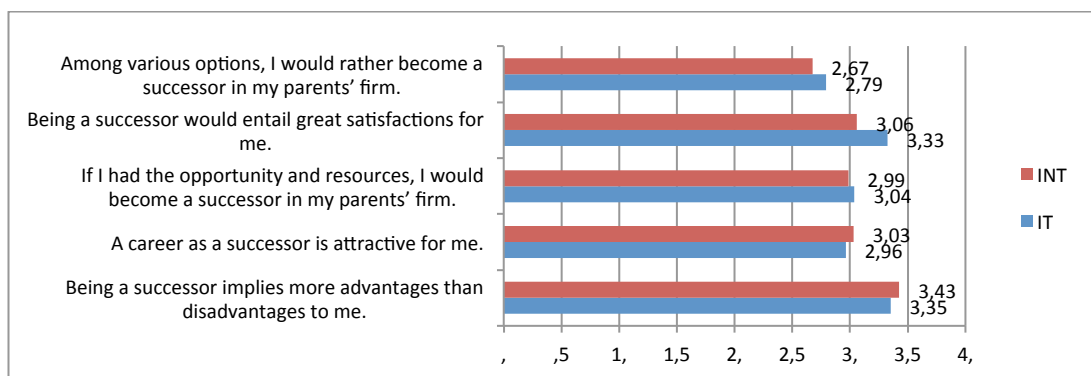
Figure 10.13: Feelings about parents' firm by succession intentions in the Italian sample



### 10.6 Attitudes towards Succession

Potential successors evaluated their attitudes toward succession on the 5-items 7-points Likert scale already used by the GUESSS survey and by Linan (2009) to measure attitudes toward entrepreneurial behavior. Figure 10.14 shows that among potential successors of the Italian sample attitudes toward succession are quite low (all items below 4), especially if compared to attitudes toward founding a business (all items above 4 in Section 6.4). In three out of five items attitudes toward succession are on average higher for Italian students than in the international sample.

Figure 10.14: Attitudes toward family succession in the Italian and international GUESSS samples



<sup>163</sup> Significance test: Oneway ANOVA; level of significance  $p < 0.01$  for all items; equal variances not rejected by Barlett's test

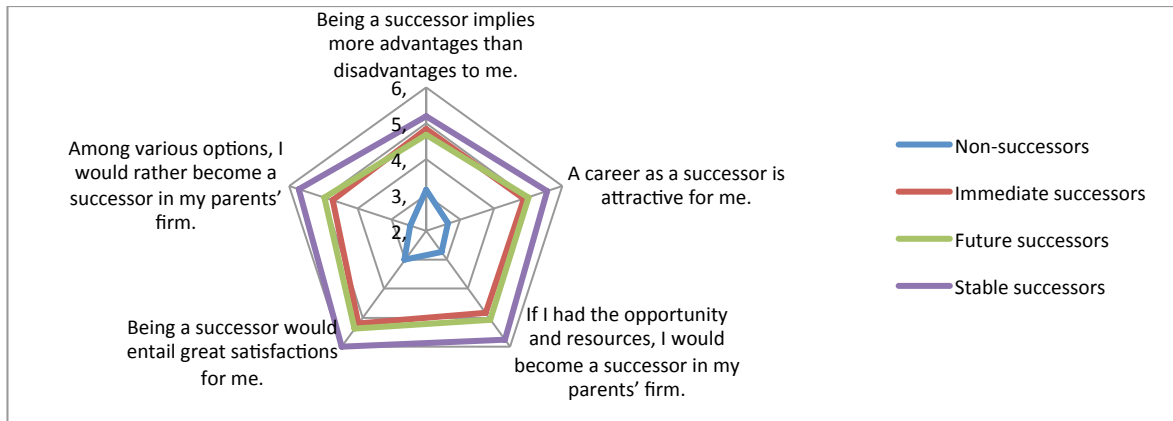
<sup>164</sup> Significance test: Oneway ANOVA; level of significance  $p < 0.005$  for all items except for *Tradition and history plays a very important role in our family firm*; equal variances not rejected by Barlett's test

<sup>165</sup> Significance test: Oneway ANOVA; level of significance  $p < 0.0001$  for all items; equal variances not rejected by Barlett's test

<sup>166</sup> Significance test: Oneway ANOVA; level of significance  $p < 0.01$  for all items; equal variances not rejected by Barlett's test

Not surprisingly non successors exhibit lower attitudes toward succession compared to intentional successors<sup>167</sup>. In particular among these ones stable successors report the most positive expectations from taking over parents’ firm (Figure 10.15). A specific analysis shows also that male and Business and Economic students present significantly better attitudes toward succession<sup>168</sup>.

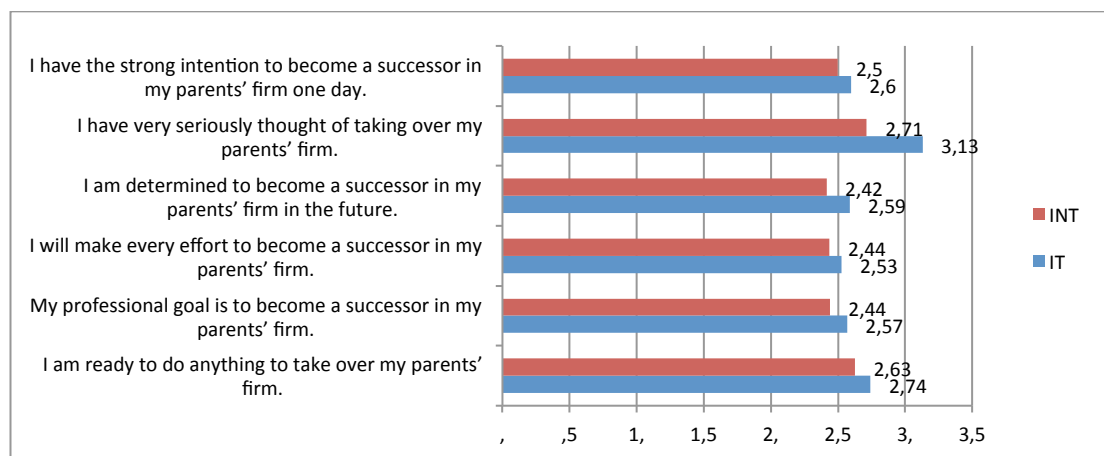
Figure 10.15: Attitudes toward family succession by succession intentions in the Italian sample



### 10.7 Strength of Succession Intentions

Potential successors were asked to assess the strength of their succession intent on the 6-item, 7-point Likert-type scale adapted from Linan (2009) used in the GUESSS survey also to measure also entrepreneurial intentions (see Section 7.2). On average succession intentions are higher in the Italian sample compared to the international sample (Figure 10.16). This explains the larger rate of intentional successors in the Italian sample.

Figure 10.16: Strength of succession intentions in the Italian and international GUESSS samples

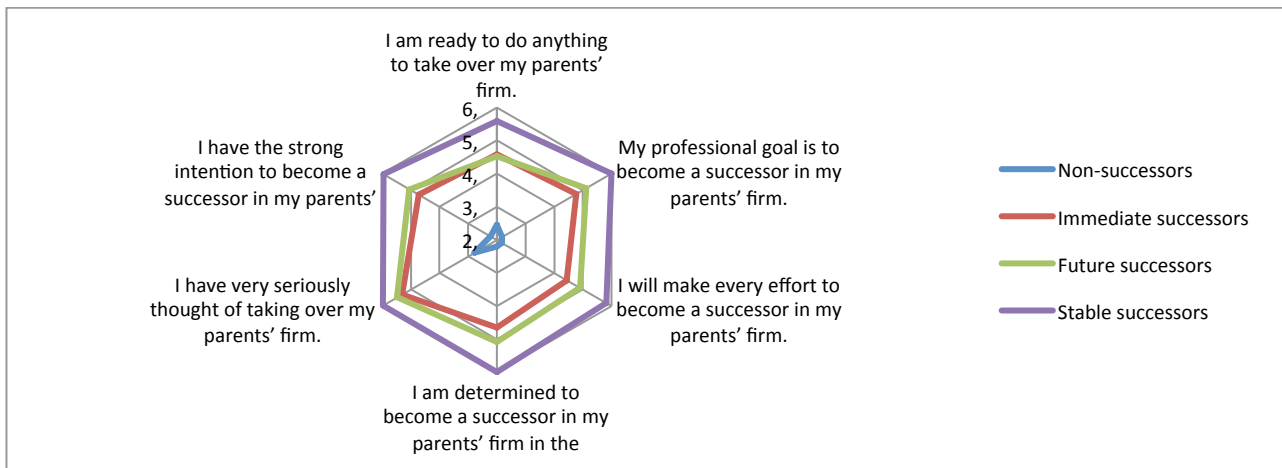


<sup>167</sup> Significance test: Fstar test; level of significance  $p < 0.0001$  for all items

<sup>168</sup> Significance test: Oneway ANOVA of Fstar test if equal variances are rejected by Barlett’s test; level of significance  $p < 0.05$  for all items

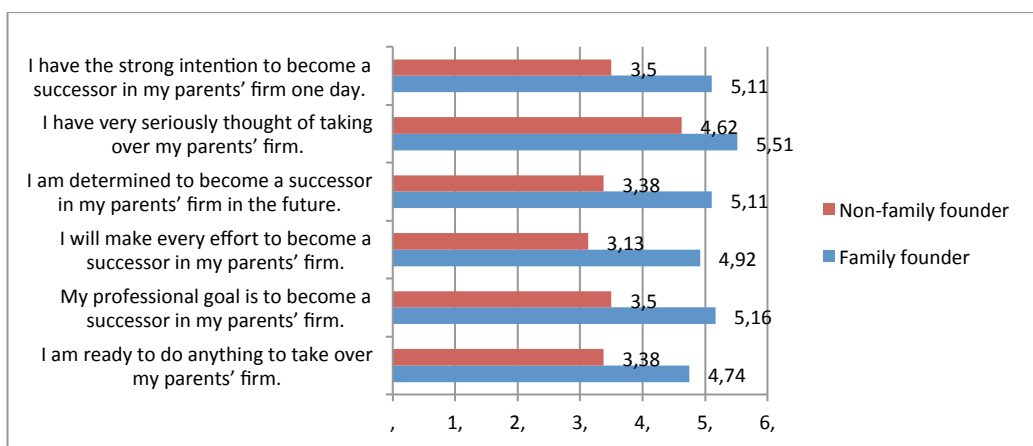
As expected, in the Italian sample the strongest<sup>169</sup> succession intentions were found among intentional successors (Figure 10.17). In particular stable successors are the most firm in their succession intent, followed by future successors. This figure suggest that the largest commitment to succession belongs to student that plan to manage parents’ firm as long term career option, especially if they plan the takeover the family business right after studies.

Figure 10.17: Strength of succession intentions by class of family successors in the Italian sample



Among intentional successors<sup>170</sup> the strength of succession intentions is significantly<sup>171</sup> larger if the firm has been founded by a family member (Figure 10.18). In this case the family business may be seen as an asset to be passed across generations and raise the commitment of intentional successors.

Figure 10.18: Strength of succession intentions of intentional successors by type of founder of the family business in the Italian sample



<sup>169</sup> Significance test: univariate ANOVA or Fstar, if Barlett’s test did not reject null hypothesis of equal variances; level of significance  $p < 0.0001$  for all items

<sup>170</sup> “Intentional successors” refers to students that plan to succeed parents’ firm right after studies and/or five years after graduation

<sup>171</sup> Significance test: univariate ANOVA; level of significance  $p < 0.0001$  for all items; equal variances not rejected by Barlett’s test

The survey asked intentional successors how they imagine the succession process to take place. On average intentional successors<sup>172</sup> (n=179) of the Italian sample assume that about 49% of the family firm's ownership will be maintained by parents (55% in the international sample). More precisely 15% of times parents will maintain full ownership, whereas 47% of intentional successors forecast that the parents will own less than 50% of the company. 10 % of respondents argue that parents won't maintain any ownership in the company.

Intentional successors were also asked to evaluate how much they would pay in order to take over parents' firm if someone external to the family offered 100. On average<sup>173</sup> they would offer 112 (only 78 in the international sample). However the value attached to the family firms differs significantly if the business has been founded by a family member<sup>174</sup>. In this case the successor would offer 134, otherwise 92.

Finally intentional successors revealed in how much time they believed the succession would take place. On average<sup>175</sup> they think that the succession will take place in 6 years (as for the international sample). This amount of time is shorter for stable successors (5.2 years) and longer for future successors (7 years)<sup>176</sup>.

## 11. CONCLUSIONS

This study sheds light in at least two interesting issues: how Italian students put into practice their general entrepreneurial motivation and what is the role played by family and university in this process. In an international comparison Italian students have an higher appreciation of the attractiveness of being an entrepreneur and a larger proportion have a family business background. This explains why a great part of participants to the Italian GUESSS survey aspire to found a firm as a long term career option. Moreover Italian nascent entrepreneurs show greater determination and commitment to the entrepreneurial career. However the ability to realize the ambition to found a business could be impaired by a low perception of the acquired entrepreneurial competences. University offerings are not fully effective in teaching the skills required to start and manage successfully a business. On the other hand the family background could complement the role of university in enhancing self-efficacy providing a mean to get some entrepreneurial experience. Family succession is a valuable entry mode into entrepreneurship for Italian students. Entrepreneurial activity of Italian active student entrepreneurs is mainly related to the personal and family background rather than the university context. Still, the scarce performance of founded companies and the lack of entrepreneurial self-efficacy of Italian students call for refinement of university entrepreneurial offerings.

<sup>172</sup> Excluded not applicable responses

<sup>173</sup> n=179; excluded not applicable responses

<sup>174</sup> Significance test: univariate ANOVA; level of significance  $p < 0.10$ ; equal variances not rejected by Barlett's test

<sup>175</sup> n=188; excluded not applicable responses

<sup>176</sup> Significance test: univariate ANOVA; level of significance  $p < 0.10$ ; equal variances not rejected by Barlett's test

The findings of the present report provides some implications in order to make university more effective in growing entrepreneurial success and intentions. In particular education should address students' heterogeneous needs emerging from the report. Various types of entrepreneurship education are targeted toward specific audiences (Bae et al., 2014).

First, university should make aware students of all study fields of the opportunity of being entrepreneurs ("education for awareness"). Though students potentially interested in founding a business come from various study fields, the report has shown that courses dedicated to entrepreneurship are mainly in the Business and Economics area. The availability of entrepreneurial offerings is reflected in the perception that university climate encourages students' entrepreneurship.

Second, universities should offer more elective initiatives aimed to enhance the practical skills required to start a business ("preparation for aspiring entrepreneurs"). The report has evidenced that elective courses and specific programs are largely frequented by students with positive attitudes toward entrepreneurship. However they may hesitate to found an own company for the lack of perceived self-efficacy.

Third, the overall dissatisfaction of Italian active entrepreneurs with the university context pointed out by the report indicate that a major gap to be filled by educational institutions is the provision of "management training for existing entrepreneur".

Finally the family business background of Italian students is a valuable resource to be exploited in order to promote students' entrepreneurship. The report has highlighted that managing parents' firm could represent an opportunity to get entrepreneurial experience before founding an own business. On the other hand some intentional successors do not feel ready to take over parents' company right after studies. Since the experience as entrepreneur in parents' company can contribute to the success of to-be-founded companies (Santarelli and Tran, 2013), devoting more time to family succession in management and entrepreneurship courses could be a way to enhance the likelihood of success of future entrepreneurs.

Further and more detailed guidelines aimed to refine entrepreneurial education and university offerings will come from the research of scholars working on the GUESSS database. The unique dataset that has been generated should be exploited in different ways, be it for practitioner-oriented reports or academic publications. This would further highlight the role of universities as hubs for the development of new ideas, new technologies, new forms of business engagement, and, ultimately, cultural, social, and economic growth.

Of course results of the present report have to be interpreted with care. There is a large heterogeneity observed in the Italian GUESSS sample with regard to regions, universities, and students included. Furthermore the non-random process used for building the database makes the population not fully representative of the Italian student population.

Future collaboration with the GUESSS project should be quite beneficial in tracking the entrepreneurial intentions of students. It would allow to analyze the changes of entrepreneurial intentions and behavior over time. In addition, there is a need to focus on encouraging active entrepreneurs to participate in

order for this subset of the population to be properly represented. Finally a useful and valuable avenue for future research would be an analysis of the measures that each university has developed to foster entrepreneurship in its students and staff. Such a study could provide additional and revealing evidence about the importance and quality of the context in promoting entrepreneurship.

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