

GLOBAL UNIVERSITY ENTREPRENEURIAL SPIRIT STUDENTS' SURVEY

2021 NATIONAL REPORT ITALY

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The full international report of the 2021 GUESSS Survey is available on GUESSS official website (<http://www.guesssurvey.org/>)

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We encourage faculty of Italian universities to contact the Italian GUESSS team to participate to the next waves and obtain the GUESSS data collected at their university.

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Summary

EXECUTIVE SUMMARY	6
1. INTRODUCTION.....	10
2. DATA COLLECTION AND SAMPLE.....	12
2.1. Personal Information of Students	13
3. UNIVERSITY CONTEXT FOR ENTREPRENEURSHIP	16
3.1. University Climate for Entrepreneurship	16
3.2. Entrepreneurship Education	17
4. STUDENTS' CAREER ASPIRATIONS	21
4.1. Long and Short-Term Career Aspirations.....	21
4.2. Career Aspirations by Gender	23
4.3. Career Aspirations by Field of Study.....	24
5. STUDENTS AND ENTREPRENEURSHIP	26
5.1. Entrepreneurial Family Background	26
5.2. Intentions to Found a Business.....	28
5.3. Subjective Norms to Found a Business.....	31
5.4. Attitudes to Found a Business	33
5.5. Entrepreneurial Self-efficacy to Found a Business.....	35
6. NASCENT ENTREPRENEURS AMONG STUDENTS	39
6.1. Profile of Nascent Entrepreneurs.....	39
6.2. Profile of the To-Be-Founded Companies.....	41
6.3. Motivations and Goals of Nascent Entrepreneurs.....	42
6.4. Founding Partners of Nascent Entrepreneurs.....	43
6.5. Nascent Entrepreneurs and Considerations about Covid-19	44
7. ACTIVE ENTREPRENEURS AMONG STUDENTS.....	46
7.1. Profile of Active Entrepreneurs.....	46
7.2. Profile of Founded Companies.....	47
7.3. Motivations and Goals of Active Entrepreneurs.....	48
7.4. Founding Partners of Active Entrepreneurs.....	50
7.5. Active Entrepreneurs and Considerations about Covid-19	51
8. POTENTIAL SUCCESSORS AMONG STUDENTS	52
8.1. Profile of Potential Successors.....	52
8.2. Career Aspirations of Potential Successors	53
8.3. Industry of the Family Business.....	54
8.4. Perceived Parents' Performance in Entrepreneurship	56
9. CONCLUSIONS	58
10. REFERENCES	62

LIST OF TABLES

Table 1. Participants Universities in the Italian 2021 GUESSS wave.....	13
Table 2. Average of students' intentions towards entrepreneurship in the Italian GUESSS samples.....	29
Table 3. Average of students' subjective norms in the Italian GUESSS samples.....	32
Table 4. Average of students' attitudes towards entrepreneurship in the Italian GUESSS samples.....	34
Table 5. Average of students' entrepreneurial self-efficacy in the Italian GUESSS samples.....	36
Table 6. Parents' ownership shares in the Italian GUESSS samples.....	55
Table 7. Stake ownership in the parents' business in the Italian GUESSS samples.....	55
Table 8. Students working for the parents' business in the Italian GUESSS samples.....	55
Table 9. Students' consideration of parents' business as a "family business" in the Italian GUESSS samples.....	56
Table 10. Businesses activities of both parents and students in the same market/industry in the Italian GUESSS samples.....	56
Table 11. Parents that stake ownership in the student business in the Italian GUESSS samples.....	57
Table 12. Business transactions between the parents and students' businesses in the Italian GUESSS samples.....	57

LIST OF FIGURES

Figure 1. Students' age in the Italian and International GUESSS samples.....	14
Figure 2. Students' gender in the Italian and International GUESSS samples.....	14
Figure 3. Students' field of study in the Italian sample.....	15
Figure 4. Students' field of study in the Italian and International GUESSS Samples.....	15
Figure 5. Average of students' perceived entrepreneurial university climate in the Italian GUESSS samples.....	16
Figure 6. Average of students' perceived entrepreneurial university climate divided by field of study in the Italian GUESSS sample.....	17
Figure 7. Participation in entrepreneurship courses in the Italian GUESSS sample.....	18
Figure 8. Participation in entrepreneurship courses divided by field of study in the Italian GUESSS sample.....	18
Figure 9. Average of the effect of university offerings on entrepreneurial learning outcomes in the Italian GUESSS sample.....	19
Figure 10. Average of the effect of university offerings on entrepreneurial learning outcomes divided by field of study in the Italian GUESSS sample.....	20
Figure 11. Students' career aspirations right after studies and five years after studies in the Italian GUESSS sample.....	21
Figure 12. Students' career aspirations right after studies and five years after studies in the Italian GUESSS sample.....	22
Figure 13. Students' career aspirations right after studies divided by gender in the Italian GUESSS sample.....	23
Figure 14. Students' career aspirations 5 years after studies divided by gender in the Italian GUESSS sample.....	24
Figure 15. Students' career aspirations right after studies divided by field of study in the Italian GUESSS sample.....	24
Figure 16. Students' career aspirations 5 years after studies divided by field of study in the Italian GUESSS sample.....	25
Figure 17. Parent entrepreneurship in the Italian GUESSS sample.....	26
Figure 18. Students' career aspirations right after studies divided by parents' self-employment status in the Italian GUESSS sample.....	27
Figure 19. Students' career aspirations 5 years after studies divided by parents' self-employment status in the Italian GUESSS sample.....	27
Figure 20. Students' career aspirations right after studies divided by parents' majority ownership status in the Italian GUESSS sample.....	28
Figure 21. Students' career aspirations 5 years after studies divided by parents' majority ownership status in the Italian GUESSS sample.....	28
Figure 22. Theory of planned behaviour (cf. Ajzen, 1991; pp. 182).....	29
Figure 23. Average of students' entrepreneurial intentions divided by gender in the Italian GUESSS sample.....	30
Figure 24. Average of students' entrepreneurial intentions divided by fields of study in the Italian GUESSS sample.....	30
Figure 25. Average of students' entrepreneurial intentions divided by parent entrepreneurship background in the Italian GUESSS sample.....	31
Figure 26. Average of students' subjective norms divided by gender in the Italian GUESSS sample.....	32
Figure 27. Average students' subjective norms divided by fields of study in the Italian GUESSS sample.....	32
Figure 28. Average students' subjective norms divided by parent entrepreneurship background in the Italian GUESSS sample.....	33

Figure 29. Average students' attitudes towards entrepreneurship divided by gender in the Italian GUESSS sample.	34
Figure 30. Average students' attitudes towards entrepreneurship divided by fields of study in the Italian GUESSS sample.	35
Figure 31. Average students' attitudes towards entrepreneurship divided by parent entrepreneurship background in the Italian GUESSS sample.	35
Figure 32. Average of students' entrepreneurial self-efficacy divided by gender in the Italian GUESSS sample.	37
Figure 33. Average of students' entrepreneurial self-efficacy divided by field of study in the Italian GUESSS sample.	37
Figure 34. Average of students' entrepreneurial self-efficacy divided by parent entrepreneurship background in the Italian GUESSS sample.	38
Figure 35. Nascent entrepreneurs in the Italian and International GUESSS samples.	39
Figure 36. Fields of study of nascent and non-nascent entrepreneurs in the Italian GUESSS sample.	40
Figure 37. Levels of study of nascent and non-nascent entrepreneurs in the Italian GUESSS sample.	40
Figure 38. Industries of to-be-founded companies in the Italian GUESSS sample.	41
Figure 39. Steps taken to found a business (multiple responses) in the Italian GUESSS sample.	42
Figure 40. Average of students' perceived level of risk-taking, innovativeness and proactiveness in the Italian and International GUESSS samples.	43
Figure 41. Number of founding partners of nascent entrepreneurs in the Italian and international GUESSS samples.	44
Figure 42. Students' main reasons for starting the business alone in the Italian GUESSS sample.	44
Figure 43. Nascent entrepreneurs that are about to create a business due to the pandemic in the Italian GUESSS sample.	45
Figure 44. Fields of study of active and non-active entrepreneurs in the Italian GUESSS sample.	46
Figure 45. Levels of study of active and non-active entrepreneurs in the Italian GUESSS sample.	47
Figure 46. Industries of active entrepreneurs' companies in the Italian GUESSS sample.	48
Figure 47. Average of main motivations and goals of active entrepreneurs in the Italian GUESSS sample.	49
Figure 48. Average of main motivations and goals of active entrepreneurs in the Italian GUESSS sample.	50
Figure 49. Average of main motivations and goals of active entrepreneurs in the Italian GUESSS sample.	50
Figure 50. Number of founding partners of active entrepreneurs in the Italian and international GUESSS samples.	50
Figure 51. Performance of active entrepreneurs' companies.	51
Figure 52. Active entrepreneurs that created a business due to the pandemic in the Italian GUESSS sample.	51
Figure 53. Field of study of potential and non-potential successors in the Italian GUESSS sample.	52
Figure 54. Level of study of potential and non-potential successors in the Italian GUESSS sample.	53
Figure 55. Average of intentions towards succession of parents' business in the Italian GUESSS samples.	54
Figure 56. Industry of family businesses in the Italian GUESSS sample.	55
Figure 57. Students perceived entrepreneurial performance of parents' business in the Italian GUESSS sample. ...	56

EXECUTIVE SUMMARY

The Italian GUESSS report is based on information collected from the GUESSS – Global University Entrepreneurial Spirit Student’s Survey – an international research project coordinated by the Swiss Research Institute of Small Business and Entrepreneurship at the University of St. Gallen and at the University of Bern in Switzerland. In Italy, the project is coordinated by the Center for Young and Family Enterprise (CYFE) of the University of Bergamo.

Since 2003, this project aims to collect and analyse information related to entrepreneurship from university students from different countries; in the 9th edition of GUESSS conducted in 2021, 58 countries participated with more than 267,000 completed responses.

The Italian survey includes 3,294 respondents from more than 31 universities. The survey has the purpose to analyse the Italian university students’ predisposition and inclination toward entrepreneurship, their entrepreneurial intentions, and actual behaviours, as well their social, family and university backgrounds. This report describes the main results obtained by the survey and compares the answers provided by Italian students with the responses from other countries reached by the survey. Furthermore, the data collected through the GUESSS survey provide scholars with opportunities to extend entrepreneurship research. The key findings of the report are summarized below.

Sample profile

- Most of the respondents are under the age of 25 (72.2%), with 23.5% of respondents between 25 and 30 years old. In the Italian sample, more males (51.8%) than females completed the survey, while in the international sample males (39.4%) were less represented than females.
- Most of the respondents are studying Engineering or Architecture (29.5%; 971), followed by Business and Management (17.3%; 570), Economics (11.6%; 382), Arts or Humanities (10.9%; 358) and Social Sciences (6.4%; 210).
- 63.1% (2,079 students) of the participants are enrolled in a Bachelor’s degree program and 34.6% (1,142 students) are studying in a Master’s degree program.

University context

- The 55.5% of Italian students (1,829 out the total sample) have never attended an entrepreneurship course, in line with the International GUESSS sample where more than half of the students had not attended any entrepreneurship course so far.

- 45.2% of Business and Economics students have attended at least one entrepreneurship course. In the other fields of study, entrepreneurship education is less likely to be attended. In particular, only 24.5 % of Social Sciences students and 27.9% of Natural and Applied Sciences students have ever attended an entrepreneurship education course during their studies.
- Business and Economics students report higher entrepreneurial skills acquired at university with an average of 4.5 (assessed on a Likert scale ranging from 1 to 7) compared to students from Natural and Applied Sciences (3.6) and Social Sciences (3.5).

Career Choice Intentions

- 68.6% of the Italian students (2,257 out the total sample) plan to become an employee right after their studies. This percentage drastically decreases to 50.6% (1,667 students) when considering students' career intentions 5 years after studies.
- The percentage of students planning to found their own business right after studies is 12.3% (405 students) and this fraction increases up to 29.2% (961 students) considering career choices intention 5 years after finishing studies. Considering instead the international sample, the percentage of students intentioned to pursue a career as a founder is equal to 17.8% right after studies, and 32.3% after 5 years.
- 16% of male Italian students (271 out of 1,693 male students) are willing to be an entrepreneur right after studies, while this percentage is lower for females (8.4%; 132 out of 1,576 female students). These fractions increase five years after studies for both sexes, but actually, the percentage of females (22.9%; 361 out of 1,576 female students) remains lower with respect to the male counterpart (35.1%; 594 out of 1693 male students). This shows an important gender gap both right after studies and 5 years after studies with respect to the intention to pursue a career as a founder.
- On the other hand, the percentage of females willing to become employees right after studies is higher than the one for males (70% against 67.2%). This scenario is similar, considering career choice intentions 5 years after graduation: 47.6% of males plan to become employees, in comparison to 54.1% of female students. According to this, it seems that females are more inclined toward the employee career compared to male respondents.

Nascent Entrepreneurs

- 16.1 % of Italian students (531 respondents) are currently involved in the process of starting a business, much less than the average value of the international sample (28.4%). 149 out of 531 answered to be both nascent entrepreneurs and active entrepreneurs (i.e. they are both currently trying to found a new business and they are

currently running a business or are self-employed); instead, 382 respondents are considered *pure* nascent entrepreneurs and the analyses of the related section is based on this fraction of respondents.

- The main industries of the nascent companies for the Italian sample are Communication & Information Technology and communication (12.7%), Advertising/Design/Marketing (10.3%) and Human Health (9.5%).
- Most of pure nascent entrepreneurs are studying in Business and Economics field (144; 37.7%) and are enrolled in a Bachelor program (250; 65.6%).
- 57.2% of pure nascent entrepreneurs have at least 1 co-founder while this percentage is lower in the international sample (46.6%). Italian nascent entrepreneurs are thus less likely to start a business as solo founders compared to the international sample.
- 66% of students who are in the process of starting a business are males (354 respondents), while only 34% are females (173 respondents). Considering *pure* nascent entrepreneurs (382 out of 531), 65.5% are males (250 respondents) and 34% are females (130 respondents). Since male and female students are almost equally represented in the Italian GUESSS sample, this figure suggests that males are more likely to be involved in the founding process compared to females.
- Only 3.9% of the Italian pure nascent entrepreneurs have already registered the business, while 11% sold their products or services. In general, 22.5% of the pure nascent entrepreneurs have not done anything to develop or create the business, while 36.6% of them have just discussed their business ideas and only 35.1% have already written their business plan.

Active Entrepreneurs

- 6.9% of Italian students (227 respondents) are currently running their own businesses, and this percentage has decreased compared to 2018 (7.2%). Moreover, this fraction is lower than the percentage of International active entrepreneurs (10.8%).
- Most of the active entrepreneurs are studying Business and Economics (100; 44.1%), followed by Natural and Applied Sciences (79; 34.8%) and Social Sciences (39; 17.2%). As for nascent entrepreneurs, most of active entrepreneurs are enrolled in a Bachelor program (143; 63.3%), followed by those enrolled in a Master program (76; 33.6%).
- Most of the companies have been founded in the last 5 years (90%), and 53% have been founded during the Covid-19 pandemic period (2020 and 2021 years).
- Most firms operate in the Tourism and Leisure industry (10.6%) followed by Advertising/Design/Marketing (10.1%). About a third of the Italian active entrepreneurs do not have employees (27.9%). Overall Italian active entrepreneurs are more likely to

have employees compared to the international sample, in which 37.3% of active entrepreneurs have no employees.

Potential Successor

- In the Italian sample, 37.8% of students (1,146 respondents) are potential successors, which means that they have at least one parent who is either self-employed or a majority shareholder parent of a business and that they are not already active entrepreneurs. Based on the career choice intentions of the whole Italian sample, 2.1% of students are planning to succeed in their parents' firm right after their studies, while 2.3% plan to do so 5 years after graduation.
- Considering potential successors' career intentions, 4.2% of respondents (48 students) declare their intention right after studies to become a successor in their family's business; 5.3% of respondents (61 students) declare their intention to become a successor in their parents' business 5 years after their studies.
- Considering only potential successor, 13.4% (153 respondents) plan to found their businesses right after their studies and 33.4% (383 respondents) plan to found their business 5 years after their studies.

1. INTRODUCTION

Entrepreneurship, defined as the process through which new business opportunities are identified and exploited (Shane et al., 2000; Acs et al., 2013) plays a central role in our society because it represents a way of thinking and behaving (Leitch et al., 2012) that leads to value creation developing new solutions for unaddressed needs. Universities can be crucial in fostering entrepreneurship by offering entrepreneurial and technological knowledge to the students (Åstebro et al., 2012; Shah and Pahnke, 2014; Wennberg et al., 2011). In particular, student entrepreneurship, defined as the entrepreneurial activity undertaken by university students (Bergmann et al., 2016) and recent graduates (Colombo and Piva, 2020), has increasingly involved the scholars and policymakers' attention (Wright et al., 2017) and there is a growing acknowledgement of the impact produced by students' venture (Åstebro et al., 2012). Particularly for scholars, student entrepreneurship provides an environment for the development and extension of entrepreneurship theory (Clarysse et al., 2022).

Moreover, student entrepreneurship represents for young people a possible career option and a source of income in times when youth unemployment affects a large percentage of countries (Fini et al., 2016), especially right after a pandemic situation. For these reasons, universities are investing in building an ecosystem that enables students to develop entrepreneurial ways of thinking and behaving (Bergmann et al., 2016; Wright et al., 2017). Thus, a key priority of universities is offering a prolific ground to develop their students' predisposition towards entrepreneurship (Audretsch, 2014).

Building on this background, GUESSS is an international research project focused on monitoring the entrepreneurial intentions and activities of university students and their antecedents, such as attitudes and skills. In recent years, the importance of student entrepreneurship in the academic community has increasingly been recognized (Eesley and Lee, 2021) and the publications based on GUESSS data in top entrepreneurship journals have increased (cf. for example Braun and Sieger, 2021 or Gimenez-Jimenez et al., 2021).

In the edition of 2021, GUESSS became even more international, involving 58 participating countries and over 267,000 respondents.

For each participating country, a representative is responsible to coordinate the survey on a national level. For every data collection wave, the GUESSS team develops a comprehensive survey that meets the highest academic standards.

In Italy, the survey has been coordinated by the Center for Young and Family Enterprise (CYFE) from the University of Bergamo with the support of Italian GUESSS board.

GUESSS aims to achieve the following goals:

- Collect data and observations of entrepreneurial intentions and future career plans of students, considering their activities during university years.
- Collect data about nascent entrepreneurship across university student entrepreneurship.
- Collect data about family firm succession.
- Identification of antecedents and boundary conditions in the context of new venture creation and entrepreneurial careers in general.
- Describe universities' support for student entrepreneurship and the entrepreneurship education offerings provided to students.

This report describes data collected from the Italian sample, including students' entrepreneurial intentions and their antecedents, the number of active entrepreneurs and nascent entrepreneurs as well as students' socio-demographic backgrounds. The Italian survey collected 3,294 students' responses from more than 31 universities.

The remaining of this report is organized as follows: Section 2 presents the questionnaire design and the data collection and main characteristics of the Italian sample; Section 3 describes students' responses about the university context for entrepreneurship; Section 4 focuses on the career intentions of respondents; Section 5 detects students' intentions and attitudes towards entrepreneurship and it illustrates students' family backgrounds considering parental entrepreneurship; Section 6 analyses nascent entrepreneurs; Section 7 is focused on active entrepreneurs; Section 8 highlights the main characteristics of potential successors; Finally, section 9 concludes with a summary of the main findings and implications.

2. DATA COLLECTION AND SAMPLE

The GUESSS survey is divided into different sections with the overall purpose to provide a complete description of university students' socio-demographic background, predisposition to entrepreneurship, career choice intentions, support for entrepreneurship from the university context, and their entrepreneurial activities. Data are collected by sampling students from different fields of study and different education levels.

The 2021 GUESSS international dataset counts 267,000 respondents across 58 countries where every participating country has a national coordinator. The national coordinator involves universities of its country in the project, which will then distribute the online questionnaire to their students. In particular, 3,294 responses were collected in Italy.

After a section focused on students' basic demographic information and their studies, the questionnaire investigates students' career aspirations in the short- and medium-term. The survey also examines the support for entrepreneurship offered to students by universities. In particular, questions are related to education, climate and learning.

After this section, students are asked about their predisposition towards entrepreneurship in terms of skills, attitudes, and intentions.

There are also sections dedicated to students who are in the process of starting a venture (named "nascent entrepreneurs") or who are already running their own business (named "active entrepreneurs"). Finally, the survey collects data about students' family background, investigating whether they grew up in an entrepreneurial family and, if applicable, what kind of relationship they had with the family business in terms of support received and succession intentions.

In Italy, the survey is coordinated by the Center for Young and Family Enterprise (CYFE) of the University of Bergamo which is responsible for disseminating the initiative to the representatives of the partner universities (also thanks to the Italian GUESSS board), who in turn distribute the questionnaire to the students of their universities through various channels (including mailing lists, Facebook groups and social media).

Each nation in the GUESSS consortium has the option to add few extra questions to the survey. Particularly for Italy, the extra questions in this edition were aimed at investigating the university support to entrepreneurship, the types and pedagogies of entrepreneurship courses followed by students, and the challenges faced by students and their families during the Covid-19 pandemic.

The table below summarizes the number of respondents for each university in the Italian 2021 GUESSS sample.

University	N	%
Politecnico di Torino	815	24.74%
Università degli Studi di Torino	782	23.74%
Università degli Studi di Verona	373	11.32%
Università della Calabria	316	9.59%
Università Cattaneo - LIUC	227	6.89%
Università degli Studi di Bergamo	182	5.53%
Sapienza Università di Roma	152	4.61%
Università degli Studi Trieste	122	3.70%
Università degli Studi di Salerno	44	1.34%
Università degli Studi di Napoli Federico II	35	1.06%
Università degli Studi di Siena	32	0.97%
Università degli Studi di Urbino "Carlo Bo"	27	0.82%
Università degli Studi di Roma "Tor Vergata"	13	0.39%
Università degli Studi della Campania Luigi Vanvitelli	7	0.21%
Università degli Studi di Padova	6	0.18%
Università degli Studi di Pavia	6	0.18%
Università del Salento	6	0.18%
Other	149	4.52%
Total	3,294	100%

Table 1. Participants Universities in the Italian 2021 GUESSS wave.
(N = 3,294)

2.1. Personal Information of Students

The average age of the Italian students who answered the 2021 GUESSS survey is 24 years. In particular, Figure 1 shows that 72.2% of the students are younger than 25 (2,270 respondents). Furthermore, 23.5% (739 respondents) are between 25 and 30 years old and the remaining students of the sample (4.3%; 143 students) have is 30 years old or more.

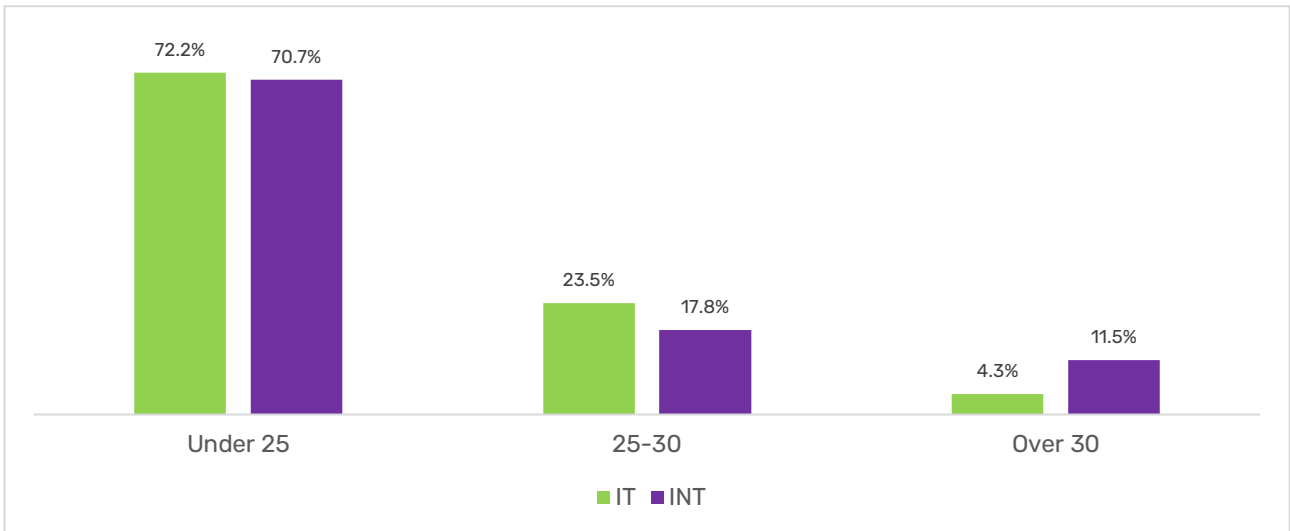


Figure 1. Students' age in the Italian and International GUESSS samples.
(Valid responses: IT=3,143; INT= 267,366)

As shown in Figure 2, there are major differences in terms of gender when comparing the Italian sample with the International one: in fact, 47.9% of the Italian sample are female students (1,576 out of 3,269 valid responses) versus 60.6% of international female respondents.

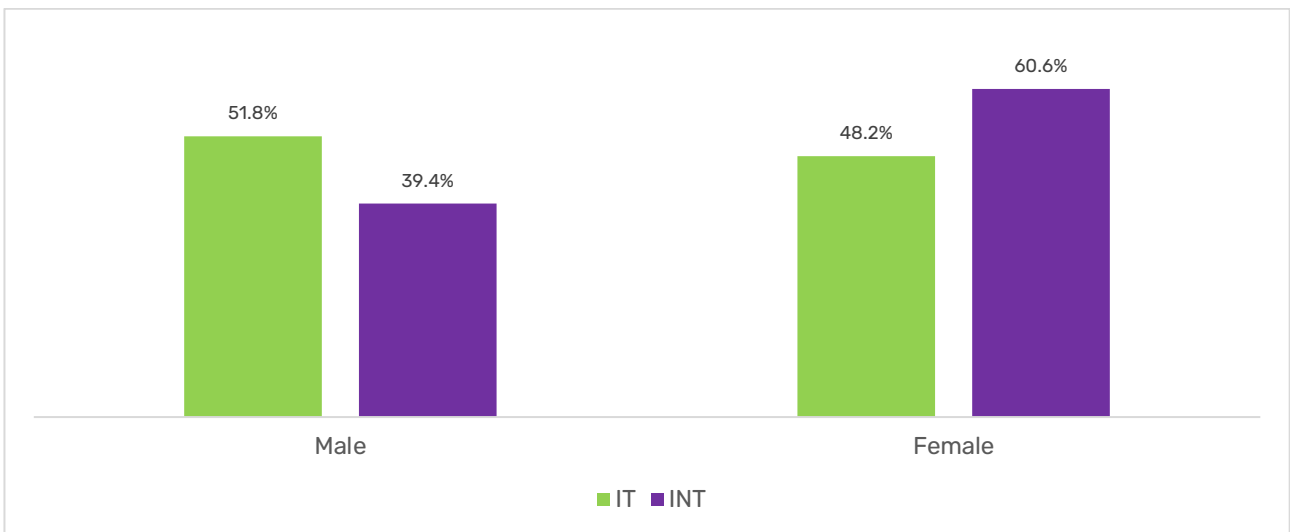


Figure 2. Students' gender in the Italian and International GUESSS samples.
(Valid responses: IT=3,269; INT= 267,366)

Figure 3 shows the study background of students who participated in the 2021 Italian GUESSS survey.

Most respondents are studying Engineering (incl. Architecture) (29.5%; 971 students), followed by Business / Management (17.3%; 570 students) and Economics (11.6%; 382 students).

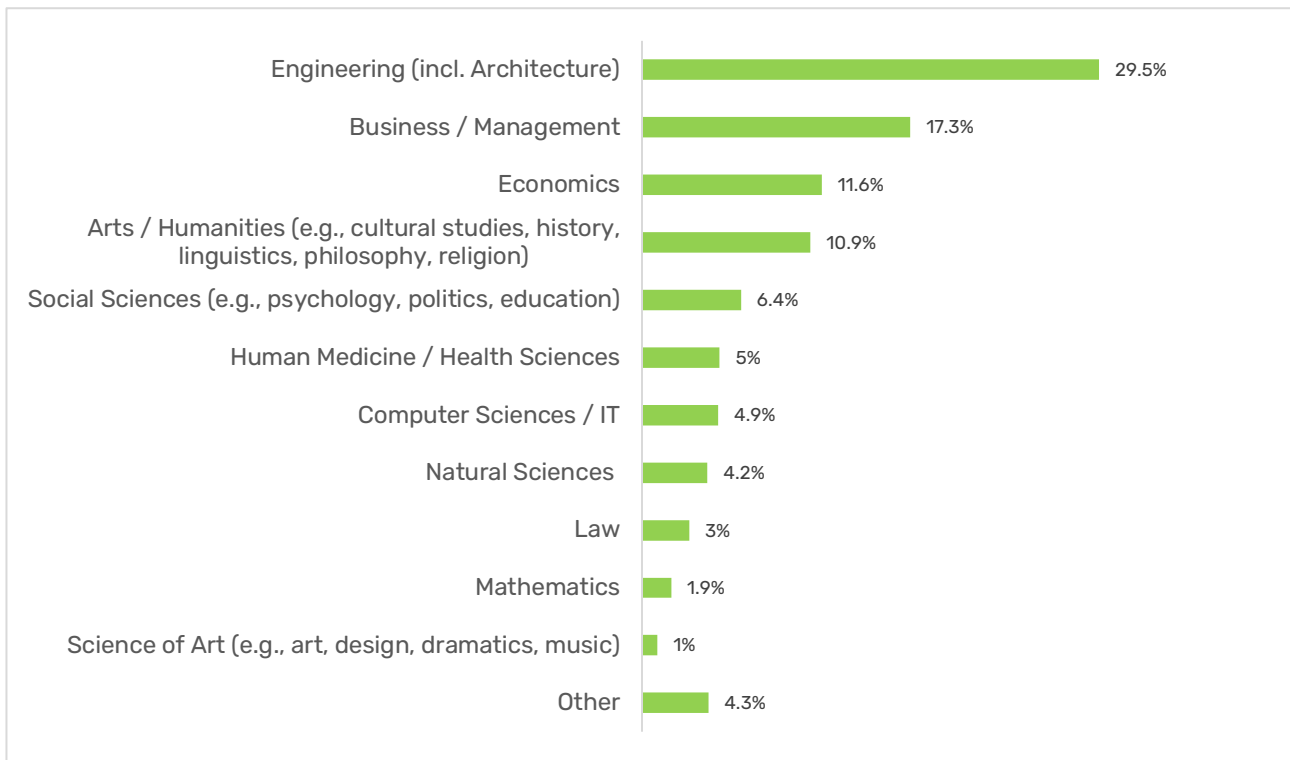


Figure 3. Students' field of study in the Italian sample.
(Valid responses: N=3,293)

The fields of study of the students are grouped into three generic fields: (i) "Business and Economics" which includes Law, Economics and Business / Management; (ii) "Natural and Applied Sciences", which include Human Medicine and Health Sciences, Mathematics, Natural Sciences, Engineering (incl. Architecture), Computer Sciences / IT; and (iii) "Social Sciences", which include Arts and Humanities, Social Sciences and Science of Art.

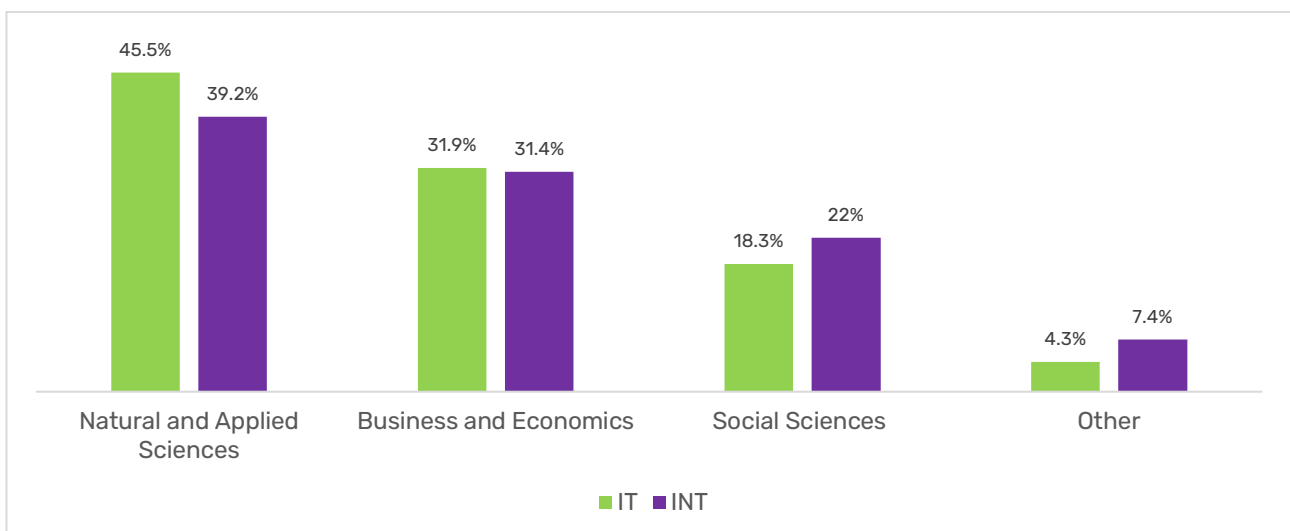


Figure 4. Students' field of study in the Italian and International GUESSS Samples.
(Valid responses: IT=3,293; INT=267,366)

3. UNIVERSITY CONTEXT FOR ENTREPRENEURSHIP

3.1. University Climate for Entrepreneurship

University climate for entrepreneurship describes the extent to which university students perceive how entrepreneurship is supported and encouraged in their institution (Bergmann et al., 2016; Hahn, 2020). It represents a key antecedent of student entrepreneurship (Bergmann et al., 2018).

To rate the university climate and environment for entrepreneurship, students were asked to rate on a 7 points-Likert scale (Franke and Lüthje, 2004) the level of agreement on three items: (i) the atmosphere at my university inspires me to develop ideas for new businesses; (ii) there is a favourable climate for becoming an entrepreneur at my university; (iii) at my university, students are encouraged to engage in entrepreneurial activities.

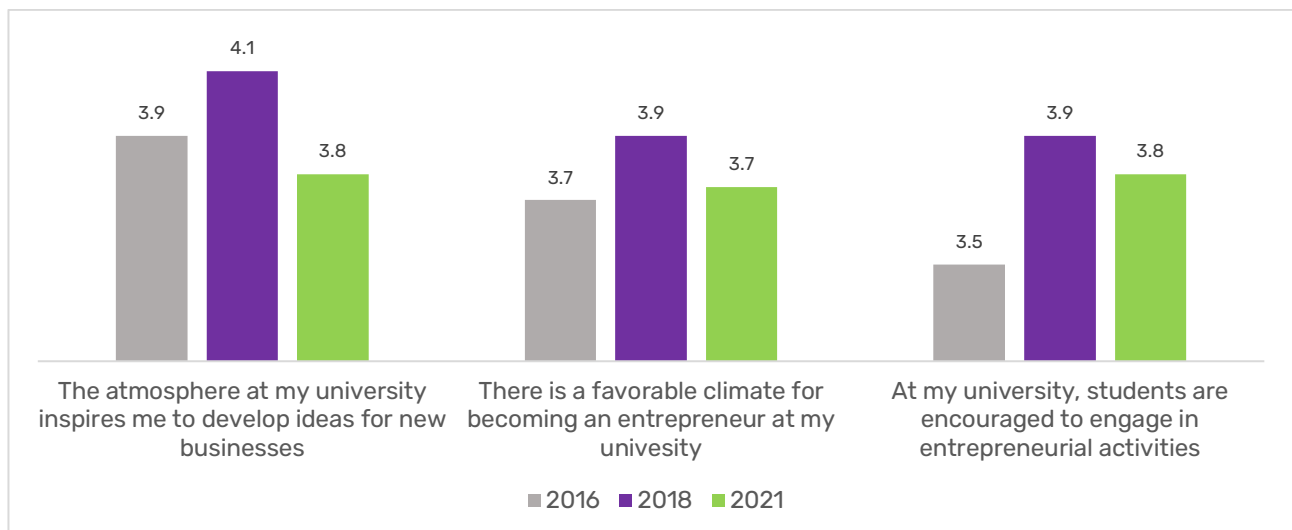


Figure 5. Average of students' perceived entrepreneurial university climate in the Italian GUESSS samples comparing 2016, 2018 and 2021 waves. (N 2016=4,435; N 2018=7,064; N 2021=3,294)

As shown in Figure 5, in 2021 students report a lower evaluation of the university climate for entrepreneurship compared to 2018 responses. The average score about the inspiring ideas is lower compared to 2016, while the ones regarding the level of encouragement of entrepreneurial activities are higher compared to 2016.

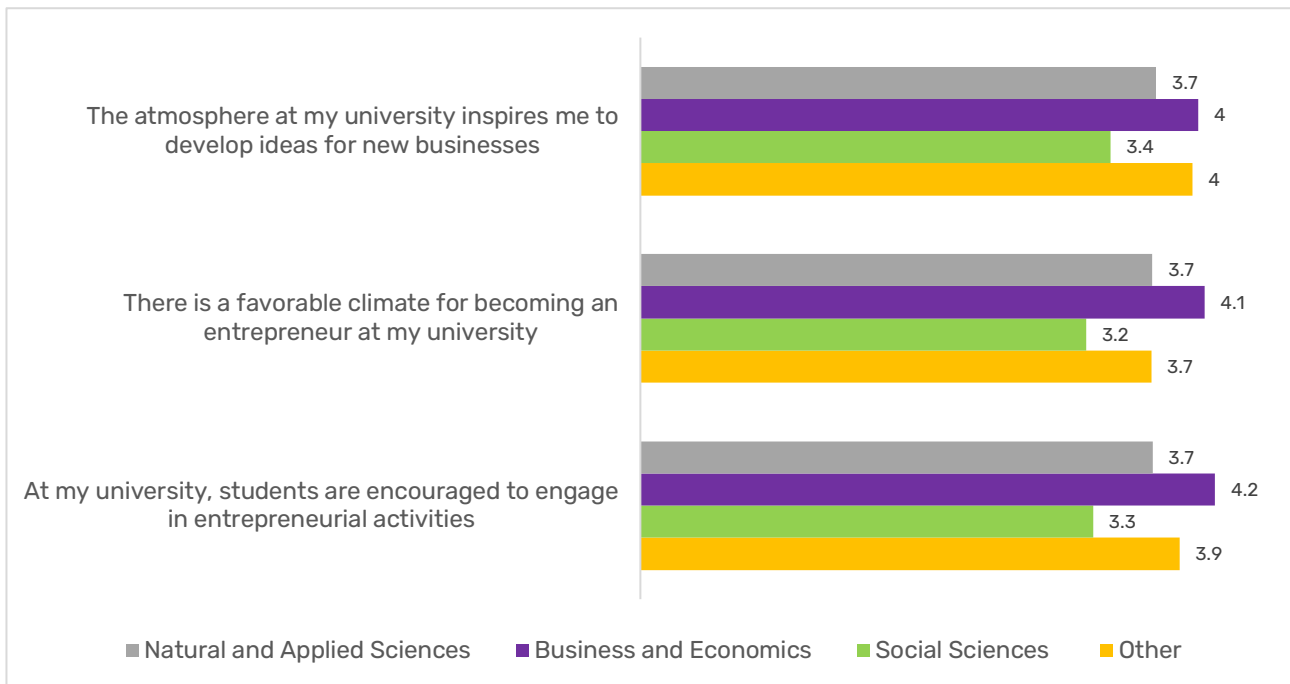


Figure 6. Average of students' perceived entrepreneurial university climate divided by field of study in the Italian GUESSS sample.

(Valid responses: N=3,293; N-Natural and Applied Sciences=1,499; N-Business and Economics=1,052; N-Social Sciences=601; N-Other=141)

On average, students from Business and Economics report a better evaluation of the entrepreneurial climate (Figure 6). Instead, it seems that students involved in Social Sciences areas are those that perceive the university's climate as less entrepreneurial.

3.2. Entrepreneurship Education

This paragraph describes students' involvement in entrepreneurship courses during their studies. As Figure 7 shows, there is a large percentage of Italian students who have never attended entrepreneurship courses (over 55.5%). 18.9% of respondents (621 students) have attended compulsory entrepreneurship education and 18.2% (600 students) have participated to elective entrepreneurship education; 4% of respondents (129 students) have attended both elective and compulsory entrepreneurship education. Besides, it is worth noting that 423 students (12.8%) declare to have chosen to study to that university mainly because of its strong entrepreneurial reputation.

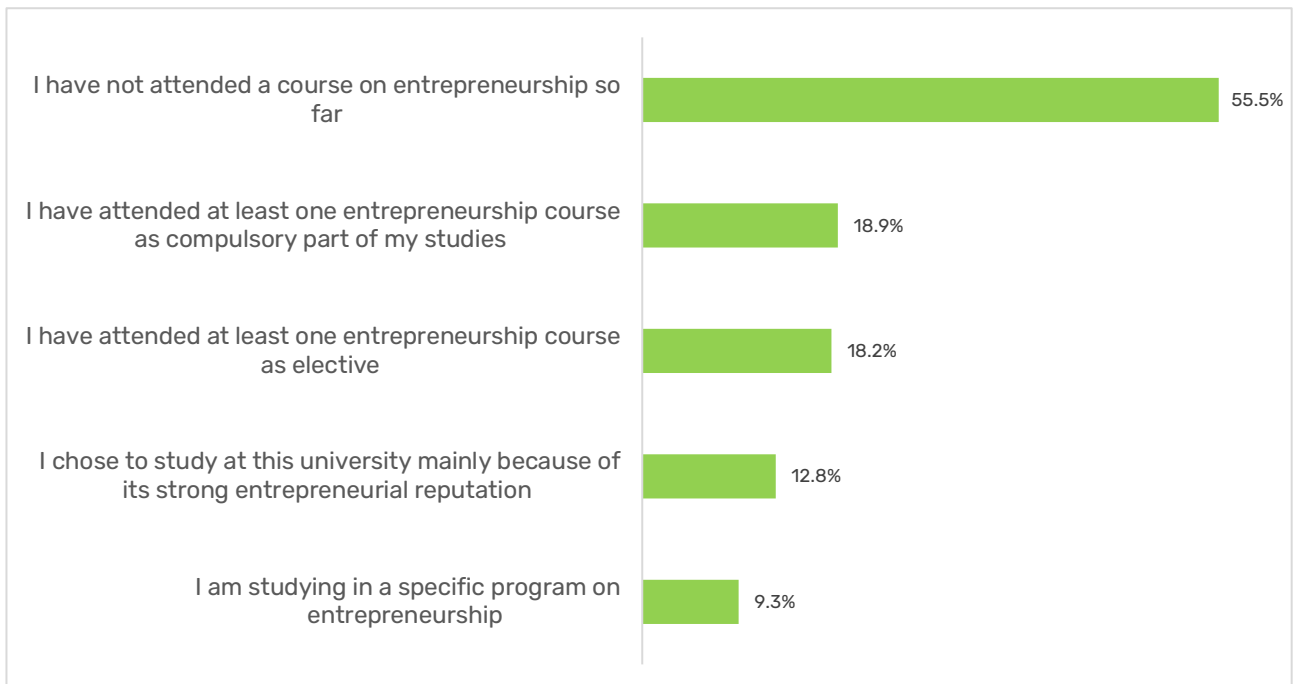


Figure 7. Participation in entrepreneurship courses in the Italian GUESSS sample. (Valid responses: N=3,294)

Focusing on students' involvement in entrepreneurship education and considering their field of study, it is possible to observe a large difference between respondents from Business and Economics and those from Social Sciences.

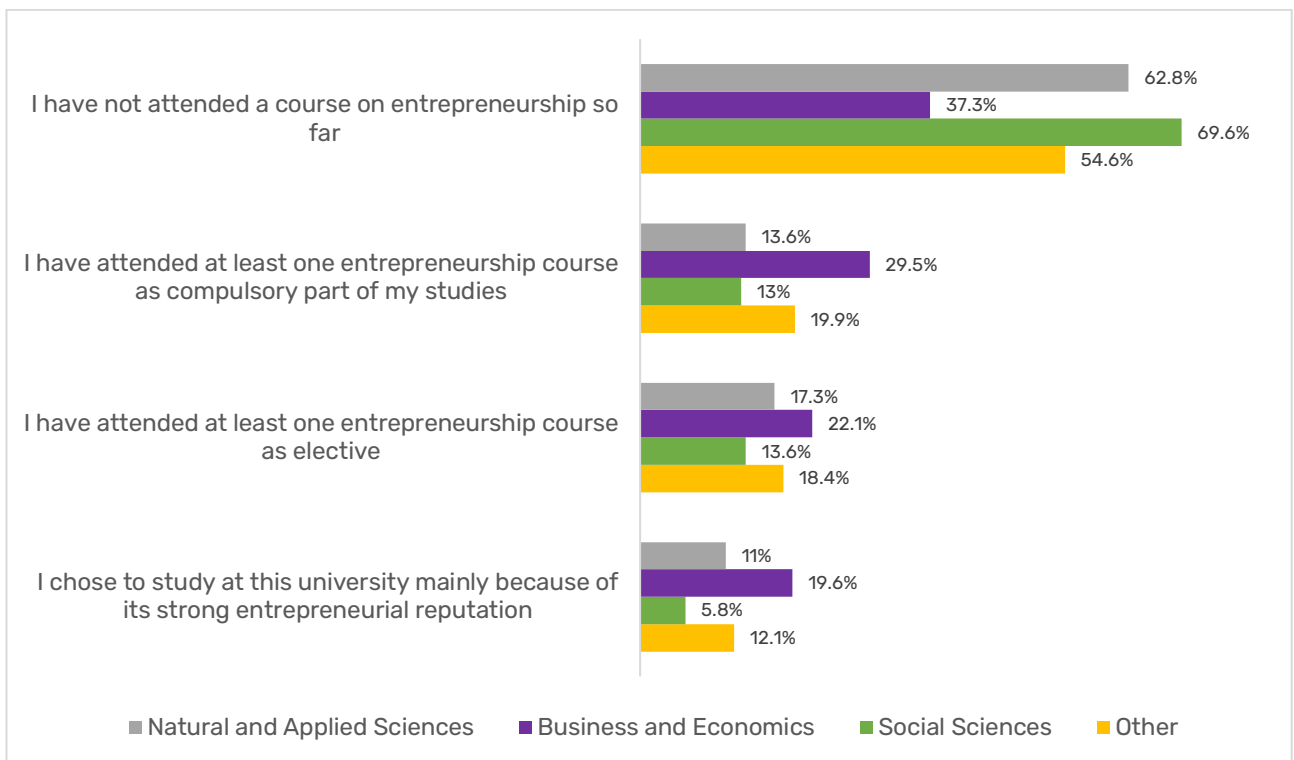


Figure 8. Participation in entrepreneurship courses divided by field of study in the Italian GUESSS sample. (Valid responses: N=3,293; N-Natural and Applied Sciences=1,499; N-Business and Economics=1,052; N-Social Sciences=601; N-Other=141)

Regarding the Business and Economics field, a huge percentage of students has attended entrepreneurship courses (particularly as compulsory), while in the Social Science field of study this kind of education is less widespread. These differences could be explained by the fact that entrepreneurship is closer to the subjects taught in the faculties of Business and Economics.

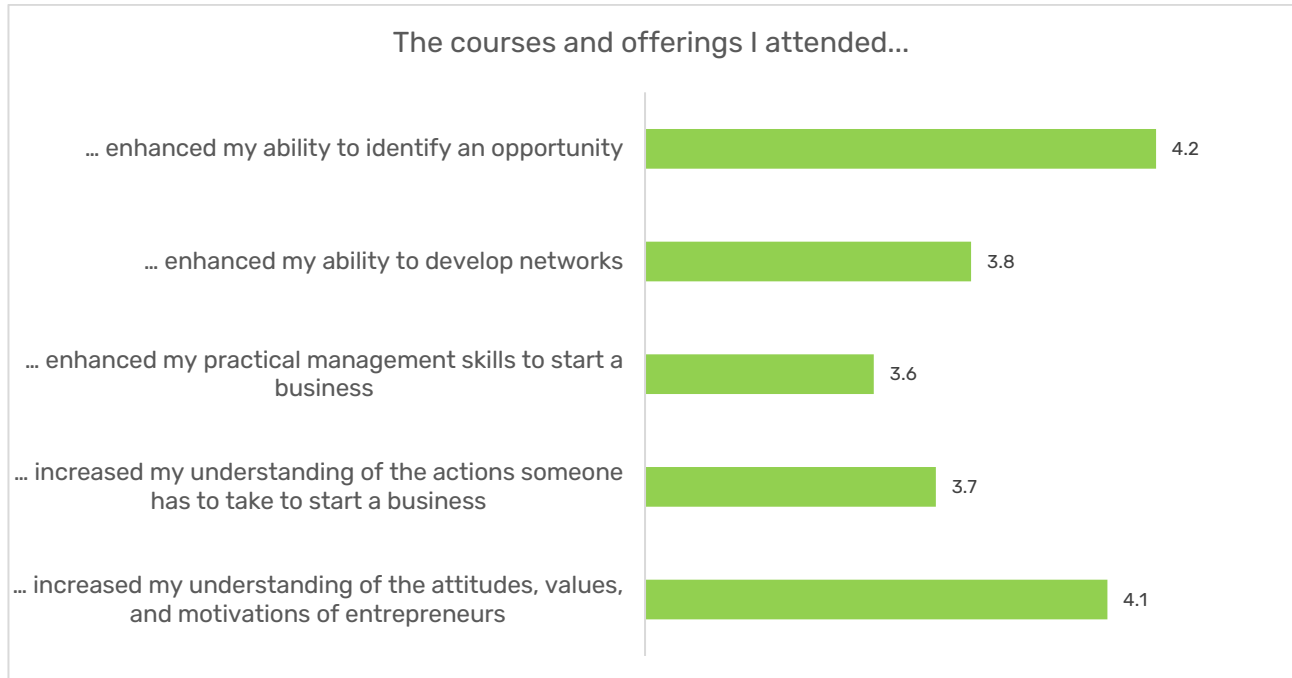


Figure 9. Average of the effect of university offerings on entrepreneurial learning outcomes in the Italian GUESSS sample. (N=3,294)

This figure above shows students' evaluation of entrepreneurial learning at university on a 7-points Likert scale by Souitaris et al. (2007). On average, university offerings have created some limited results in students' entrepreneurial learning outcomes; in particular, Italian students report very scarce improvement in their practical skills and actions needed to start a business. More specifically, looking at the different fields of study, results are particularly disappointing for Social Sciences and Natural and Applied Sciences students, who report lower entrepreneurial learning outcomes compared to Business and Economics students.

Taken together, these results suggest that Business and Economics students are more likely to receive entrepreneurship education and are surrounded by a university environment that nurtures their business and management skills and encourages them to be entrepreneurial.

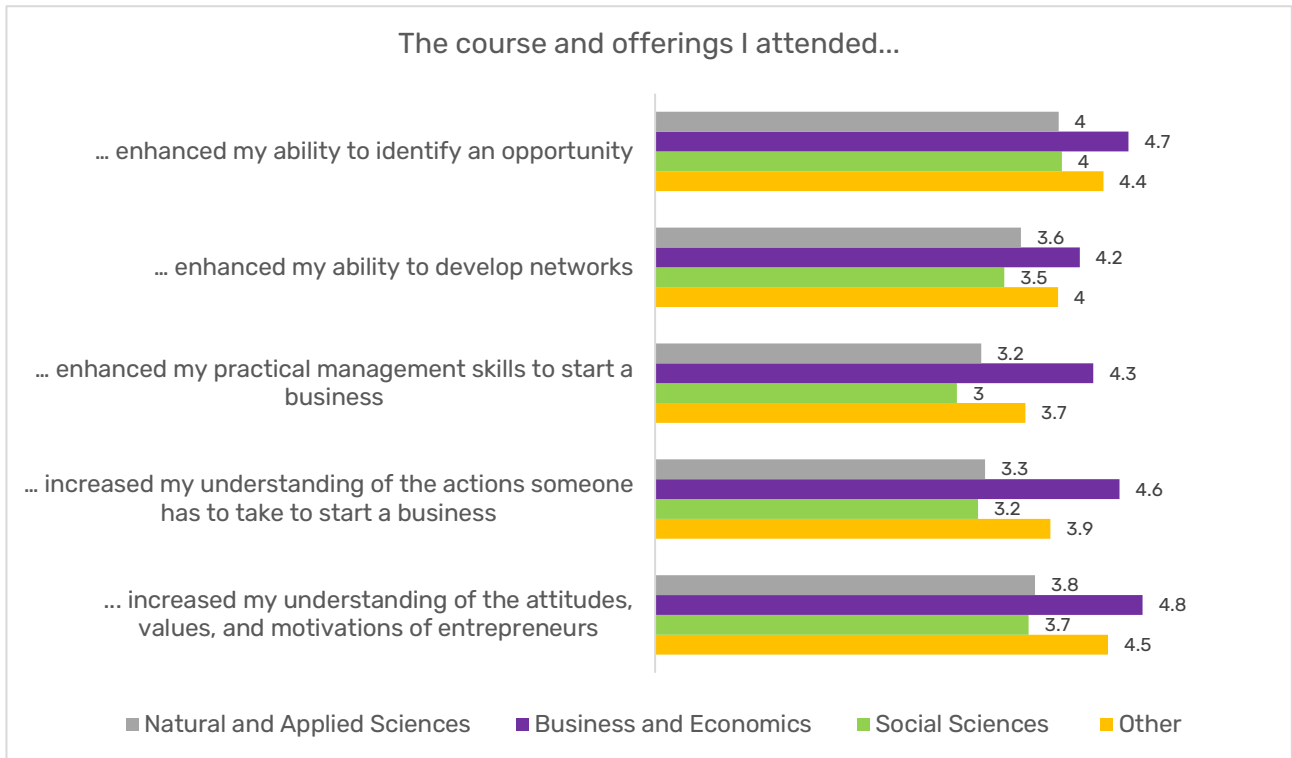


Figure 10. Average of the effect of university offerings on entrepreneurial learning outcomes divided by field of study in the Italian GUESSS sample.
 (Valid responses: N=3,293; N-Natural and Applied Sciences=1,499; N-Business and Economics=1,052; N-Social Sciences=601; N-Other=141)

4. STUDENTS' CAREER ASPIRATIONS

4.1. Long and Short-Term Career Aspirations

Career aspirations are useful to capture students' interest in an entrepreneurial career after graduation (Hahn et al., 2021a).

This paragraph reports the career intentions of Italian students, considering two-time horizons: right after studies and in the medium-long term (i.e., 5 years after studies). The investigation is done considering the two-timing as, considering that students who are looking for a job typically search for several years before finding the position they want to pursue (Clarysse et al., 2022), the double check of their career intentions right after studies and after 5 years investigates the consistency of their intentions across the years.

Students could choose among 9 different career paths, as shown in the figure below (Figure 11).



Figure 11. Students' career aspirations right after studies and five years after studies in the Italian GUESSS sample. (N=3,294)

It is possible to notice that most of students prefer to start working as an employee in a large company right after their studies (24.7%).

Only 12.3% of students are interested in becoming entrepreneurs immediately after their studies.

5.6% of the students prefer a career in academia, while a job in a non-profit association or public service is respectively chosen by 2.4% and 8.4% of the respondents. Only 3.1% would like to take over an existing business or become successors in their parents' family business

The scenario 5 years after graduation is quite different: it is possible to notice a larger percentage of students willing to found their own business (29.2%; 961 respondents). There is also a drop in the percentage of students that aim to become an employee (from 68.5% to 50.61%).

According to these results, students seem to prefer starting a business later in their career and not just after finishing university.

As anticipated, the percentage of the students that are planning to work as an employee is lower 5 years after the end of studies: in particular, only a small fraction aims to be employed in a small business (3.3%), while the percentages of those who prefer a medium or large business are higher (respectively, 9.7% and 23.4%). These results could highlight some serious difficulties for SMEs to recruit talent and should raise some awareness among educators and policymakers.

To resume these responses, we grouped these options into four groups: (i) Employee (i.e. employee in a small business, an employee in a medium-sized company employee, an employee in a large company, an employee in a non-profit organization, employed in academia/academic career, and employee in the public administration); (ii) Founder; (iii) Successor (i.e. succeed in parents' firm or another business); and (iv) Other / do not know yet.

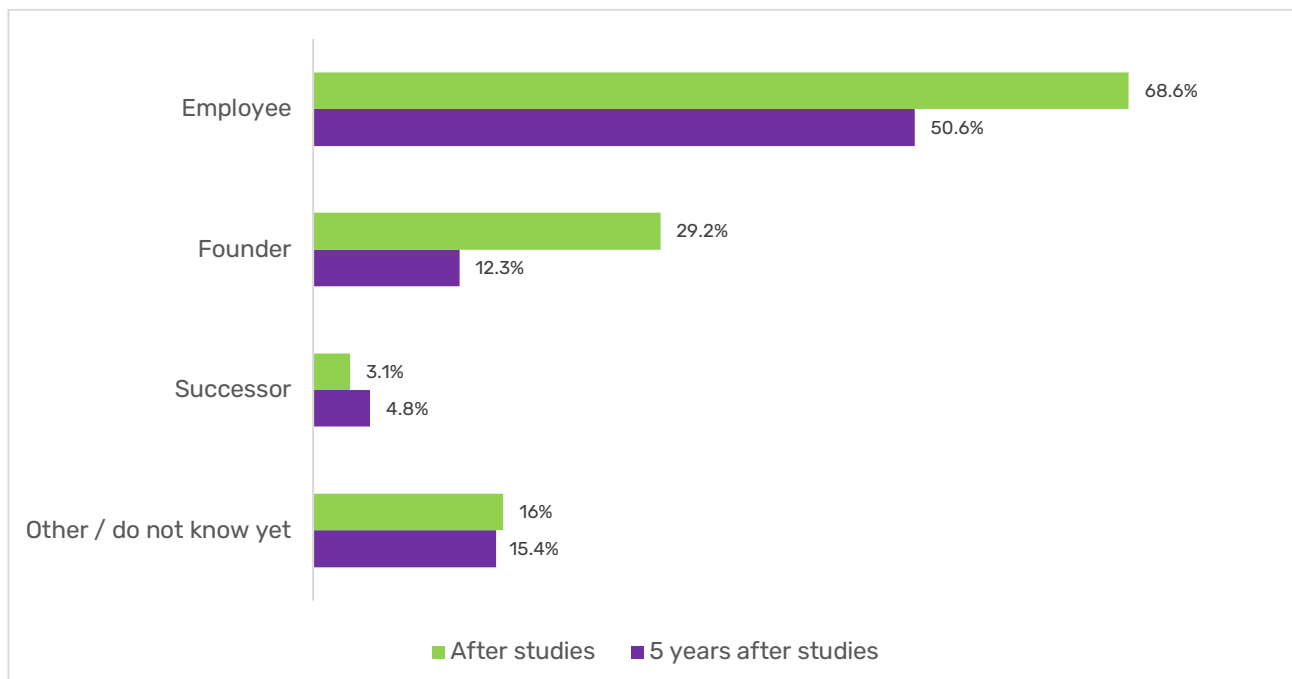


Figure 12. Students' career aspirations right after studies and five years after studies in the Italian GUESSS sample (N=3,294)

Figure 12 shows that 68.6% of the students would like to start working as an employee immediately right after their studies, while only 12.3% of them would like to found a business. The career choice intentions 5 years after graduation are significantly changed. In particular, the percentage of students wishing to become a founder increases up to 29.2%, while the fraction of students aiming at becoming employees decreases by almost 20%.

4.2. Career Aspirations by Gender

As shown in Figure 13 and Figure 14, male students are more likely to choose a career as founders (both right after studies and 5 years later) compared to females.

Instead, looking at the propension to become an employee both right after studies and 5 years later, females seem to be more interested in the career as employees.

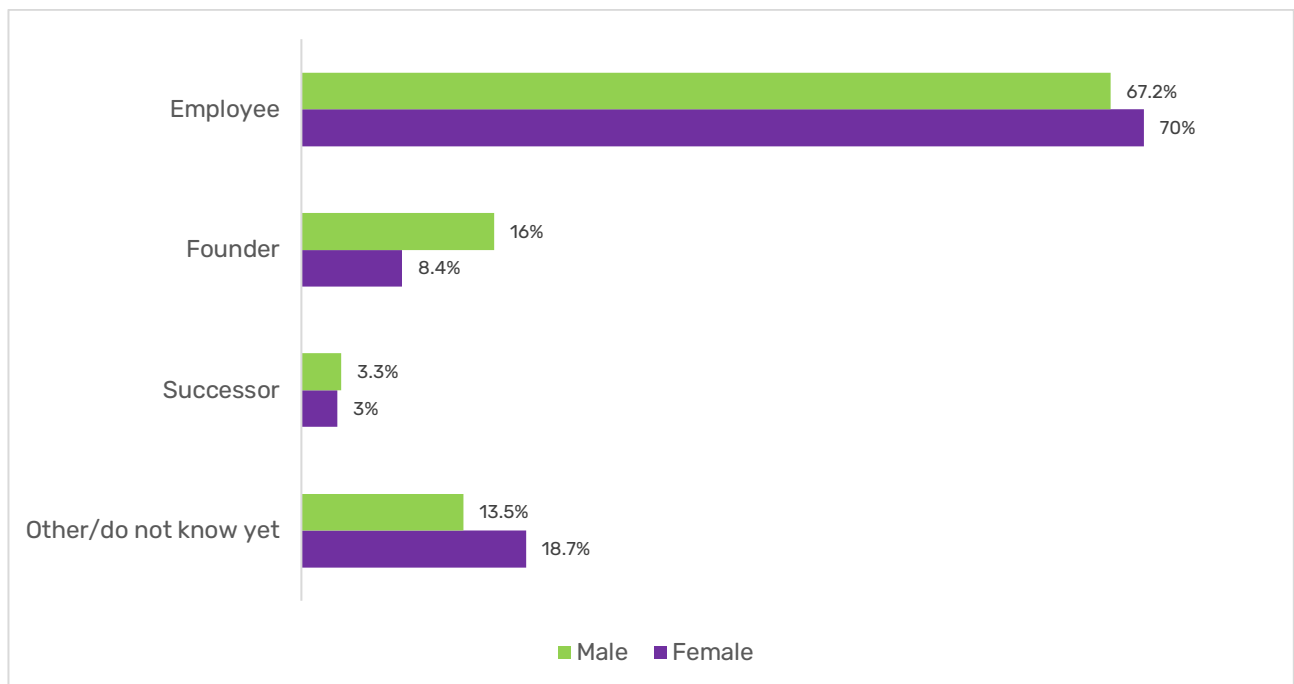


Figure 13. Students' career aspirations right after studies divided by gender in the Italian GUESSS sample. (Valid responses: N=3,269; N-male=1,693; N-female=1,576)

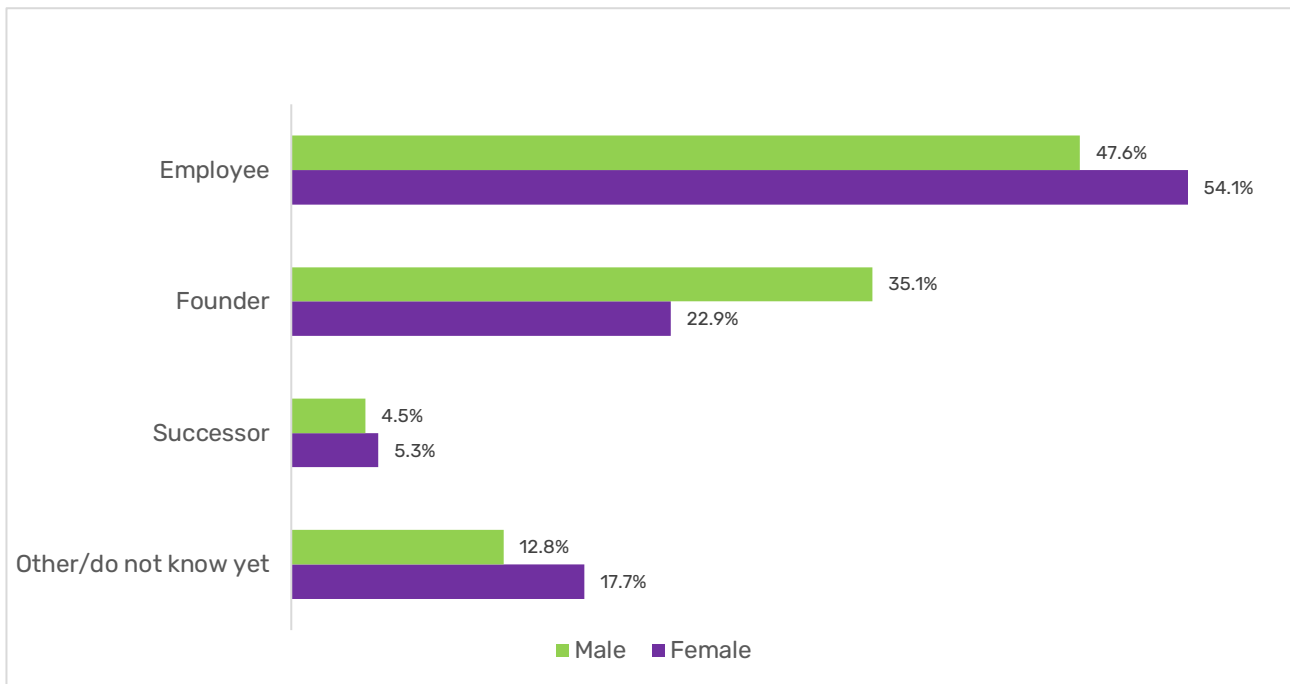


Figure 14. Students' career aspirations 5 years after studies divided by gender in the Italian GUESSS sample (Valid responses: N=3,269; N-male=1,693; N-female=1,576)

4.3. Career Aspirations by Field of Study

Figure 15 and Figure 16 show career choice intentions right after studies and 5 years after studies considering students' field of study. It is possible to notice that right after studies, students prefer to start their career as employees and this consideration is valid for all the fields of study.

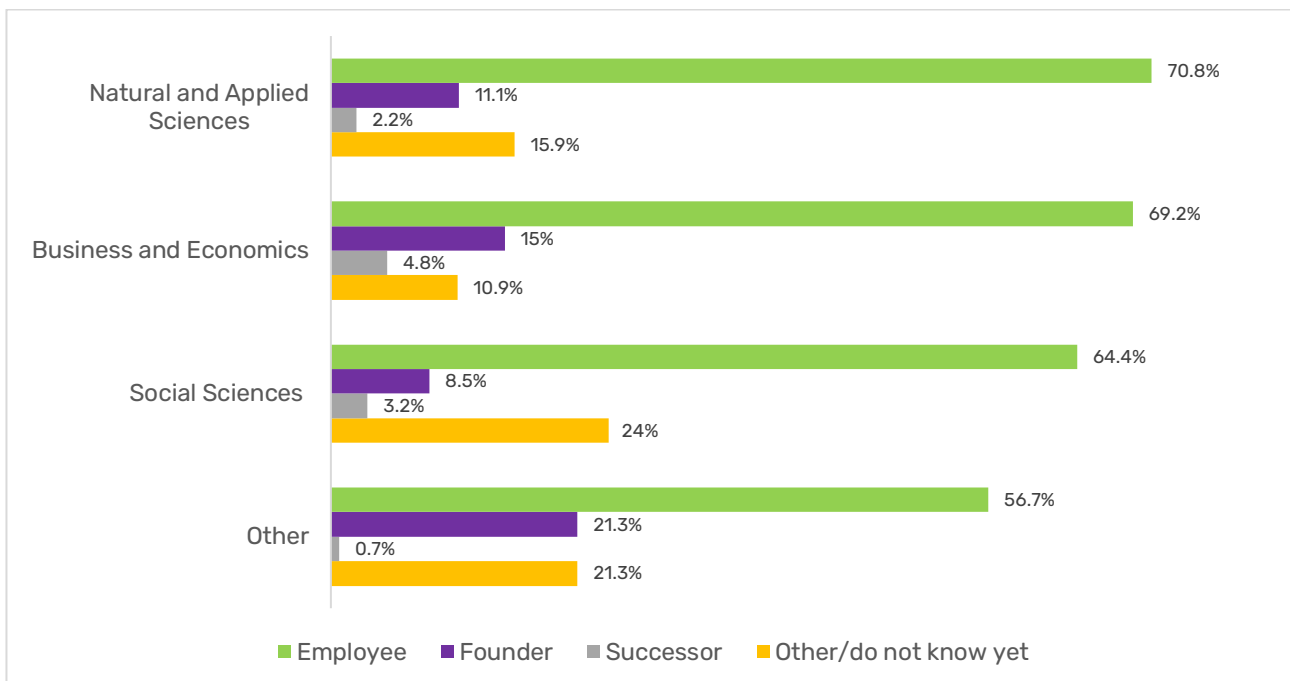


Figure 15. Students' career aspirations right after studies divided by field of study in the Italian GUESSS sample. (Valid responses: N=3,293; N-Natural and Applied Sciences=1,499; N-Business and Economics=1,052; N-Social Sciences=601; N-Other/do not know yet=141)

Five years after the end of the studies, respondents continue to follow their preference of becoming an employee, but it is evident that there is a huge growth in the number of founders in every category.

It should be noted that the interest in an entrepreneurial career is very diffused also among students from Natural and Applied Sciences (29.4%) and Social Sciences (23.6%), even though they are much less likely to attend entrepreneurship education and perceive a less supportive entrepreneurial climate and entrepreneurial learning at their university. This should raise some attention towards spreading across campus entrepreneurship education offerings, as students from all fields of studies seem to express some interest in an entrepreneurial career.

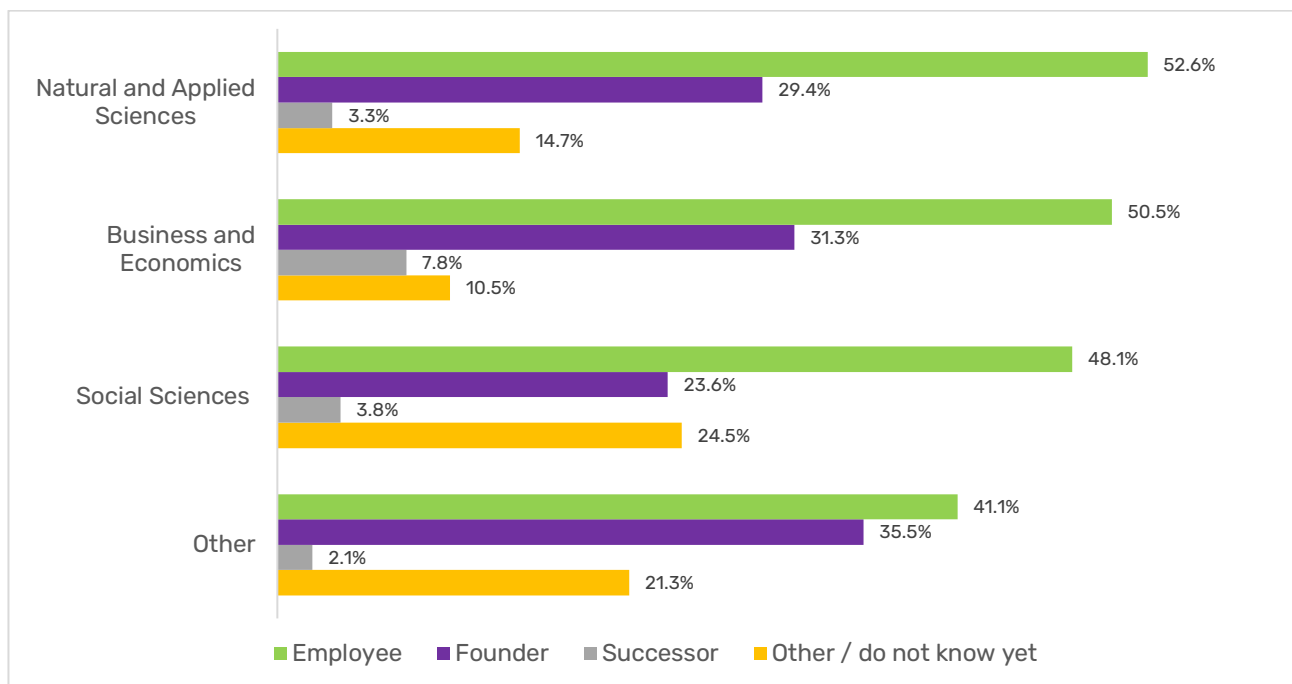


Figure 16. Students' career aspirations 5 years after studies divided by field of study in the Italian GUESSS sample. (Valid responses: N=3,293; N-Natural and Applied Sciences=1,499; N-Business and Economics=1,052; N-Social Sciences=601; N-Other=141)

5. STUDENTS AND ENTREPRENEURSHIP

5.1. Entrepreneurial Family Background

The family context, and in particular being an entrepreneurial family, strongly impacts the entrepreneurial intentions and behaviours of the new generations (Hahn et al., 2021a). This topic has been widely examined in entrepreneurship and family business literature: in fact, previous research has shown that having a family business background plays a central role in explaining the entrepreneurial activities of individuals (Sieger and Minola, 2017; Aldrich and Cliff, 2003) and increases the offspring's general likelihood of pursuing an entrepreneurial career (Laspita et al., 2012; Schoon and Duckworth, 2012; Sørensen, 2007). This is in line with other studies finding that the family context plays a decisive role concerning entrepreneurial intentions (e.g., Zellweger et al., 2011; Dyer and Handler, 1994). It is also reported that growing up in an entrepreneurial family and being exposed to business experiences in the family company certainly shapes the entrepreneurial intentions and capabilities of the next generation, a process known as the intergenerational transmission of entrepreneurship (Pittino et al., 2018; Criaco et al., 2017). Moreover, an enterprising family background represents an important boundary condition affecting the extent to which university students learn from entrepreneurship education (Hahn et al., 2020) and form career aspirations based on their entrepreneurial learning (Hahn et al., 2017).

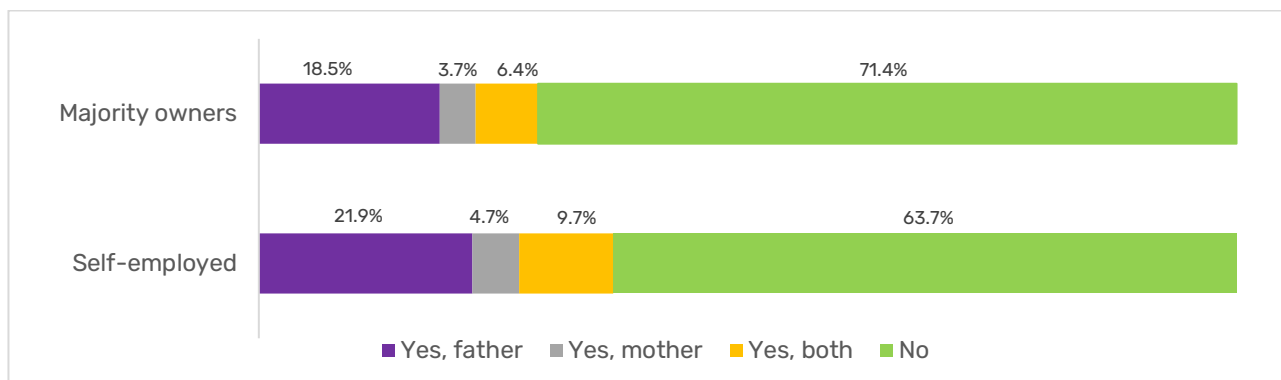


Figure 17. Parent entrepreneurship in the Italian GUESSS sample.
(N=3,294)

As illustrated in Figure 17, in the Italian sample, almost 36% of students have at least one parent self-employed and almost 28% have at least one parent who is the majority owner of a business. In most cases, only the father is self-employed (21.9%) or the majority owners of a business (18.5%).

Figure 18 and Figure 19 show that employment and entrepreneurship career aspirations differ between students with and without parent entrepreneurs: students who do not have parent

entrepreneurs are more inclined to become employees right after studies (70.8%) compared to students with at least one self-employed parent (i.e. father self-employed 63.2%).

A similar pattern could be observed considering students' career aspirations 5 years after studies: students whose parents are self-employed are more attracted to a career as a founder.

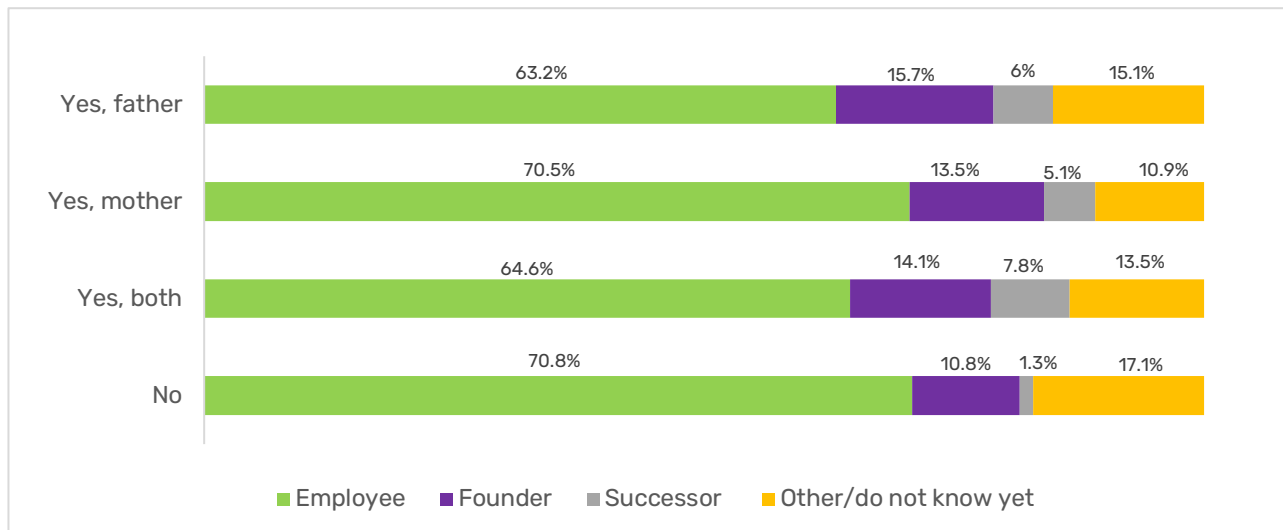


Figure 18. Students' career aspirations right after studies divided by parents' self-employment status in the Italian GUESSS sample. (N=3,294)

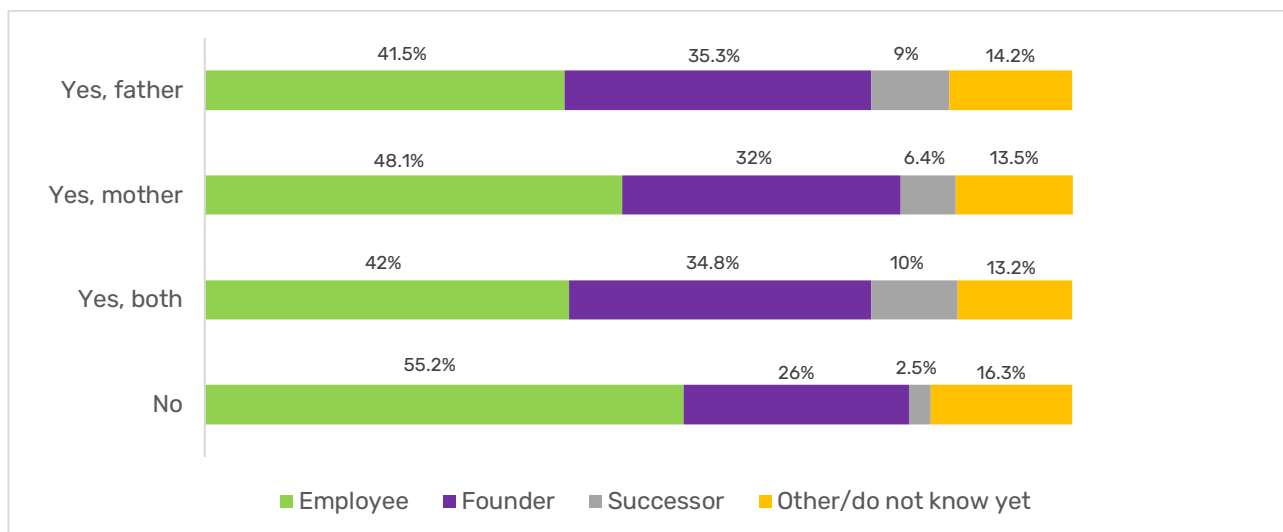


Figure 19. Students' career aspirations 5 years after studies divided by parents' self-employment status in the Italian GUESSS sample. (N=3,294)

We replicate the analysis considering parents' majority ownership status (Figure 20 and Figure 21). The findings result quite like the previous case.

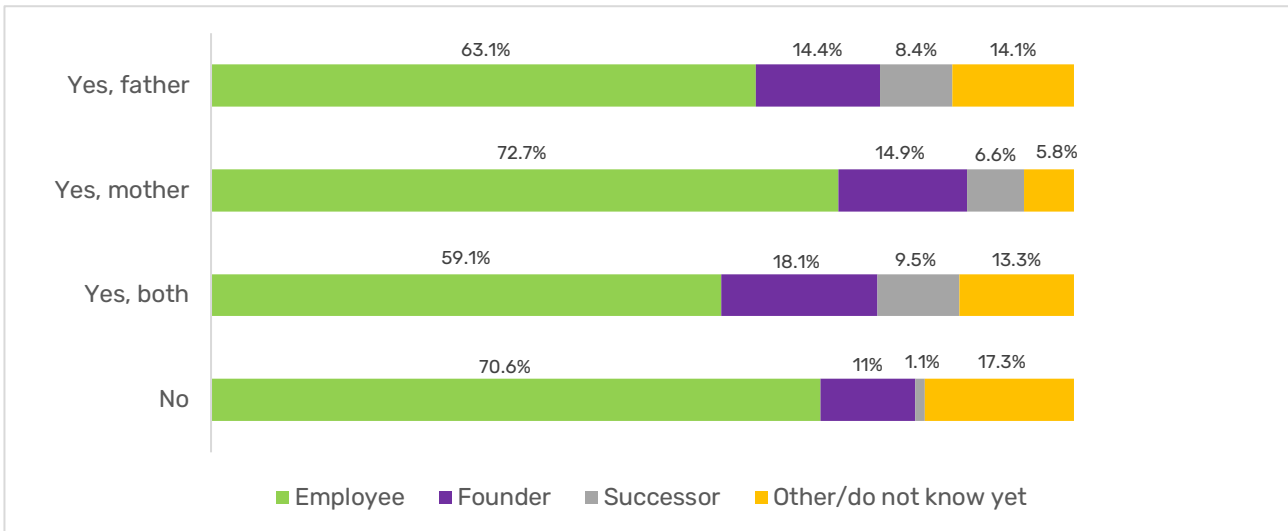


Figure 20. Students' career aspirations right after studies divided by parents' majority ownership status in the Italian GUESSS sample. (N=3,294)

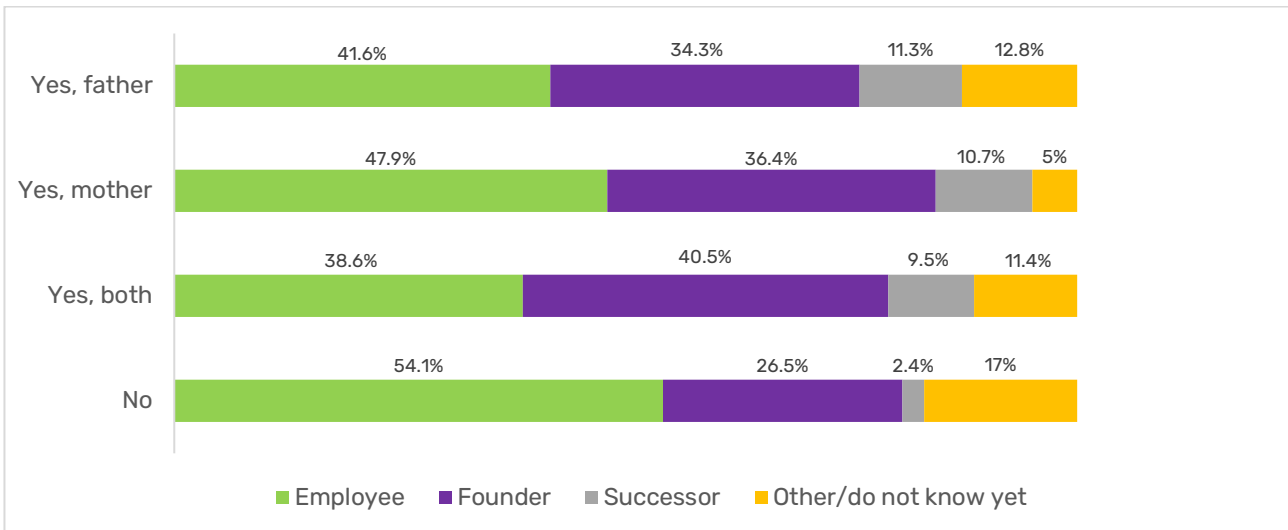


Figure 21. Students' career aspirations 5 years after studies divided by parents' majority ownership status in the Italian GUESSS sample. (N=3,294)

5.2. Intentions to Found a Business

One of the main goals of GUESSS is to detect university students' entrepreneurial intentions, which the Theory of Planned Behaviour (Ajzen, 1991) acknowledges as one of the most reliable predictors of actual entrepreneurial behaviour (Liñán and Chen, 2009).

The Theory of Planned Behaviour (TPB) (Ajzen, 1991) highlights that a behaviour is best explained by an intention to try to perform the behaviour and it postulates three conceptually independent determinants of intentions: attitude toward the behaviour, subjective norms and perceived behavioural control (Figure 22). Attitudes are related to the degree of belief that a person has about the fact that a certain behaviour will lead to a favourable outcome; subjective norms refer to the social pressure by others (like family or friends) that a person has before to

perform the behaviour; perceived behavioural control refers to the perception of behaviour and the degree of volitional control that a person could have on this behaviour.

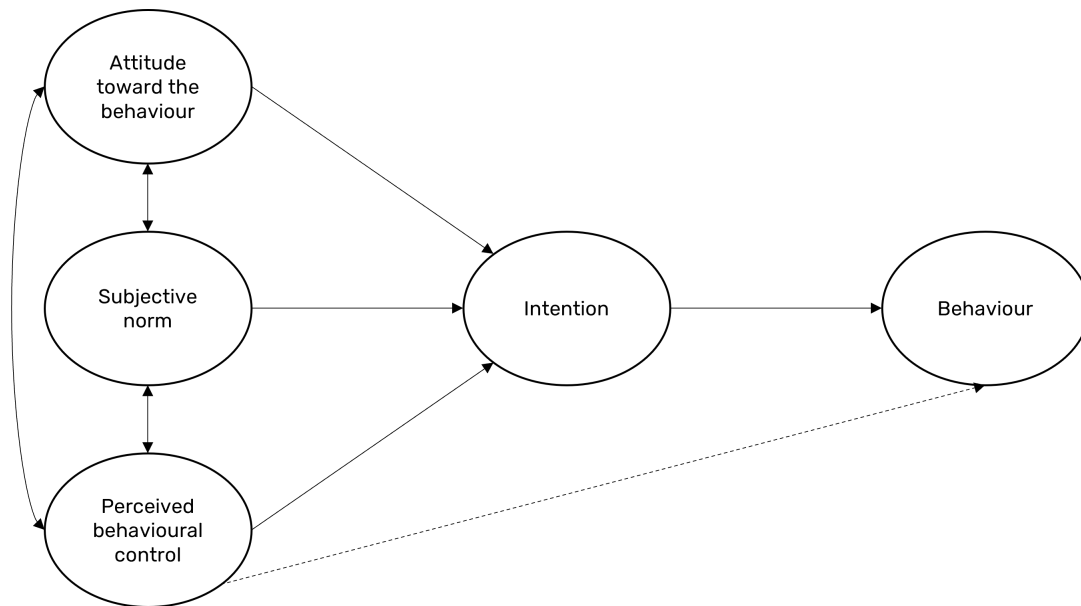


Figure 22. Theory of planned behaviour (cf. Ajzen, 1991; pp. 182)

Entrepreneurial intentions are thus crucial to understand the roots of university students' entrepreneurial careers (Meoli et al., 2020). Entrepreneurial intentions are measured using the 6-items scale taken from Liñán and Chen (2009), as shown in Table 2, displaying the comparison between the average responses from the 2021, 2018 and 2016 Italian GUESSS surveys. The average result remains stable across time.

	Average score Italian sample 2016	Average score Italian sample 2018	Average score Italian sample 2021
I am ready to do anything to be an entrepreneur	3.8	3.6	3.8
My professional goal is to become an entrepreneur	3.7	3.7	3.8
I will make every effort to start and run my own business	4.1	3.8	3.7
I am determined to create a business in the future	3.8	4.1	4.0
I have very seriously thought of starting a business	3.6	3.7	3.7
I have the strong intention to start a business someday	3.6	3.9	3.9
Average	3.8	3.8	3.8

Table 2. Average of students' intentions towards entrepreneurship in the Italian GUESSS samples. (N 2016=4,180; N 2018=5,601; N 2021=2,685¹)

¹The questions related to entrepreneurial intentions, attitudes, and skills are asked only to students who are neither active nor nascent entrepreneurs.

Considering the average analysis of entrepreneurial intentions divided by gender (Figure 23), male students seem to have a higher level of intention towards entrepreneurship with respect to their female counterparts.

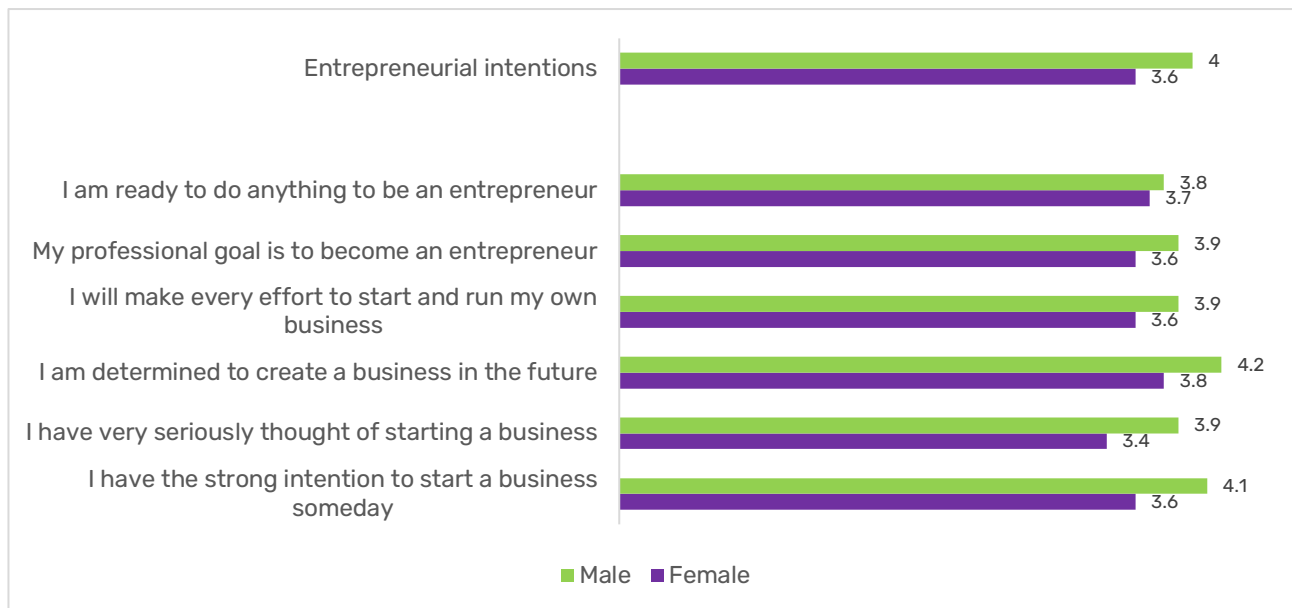


Figure 23. Average of students' entrepreneurial intentions divided by gender in the Italian GUESSS sample. (Valid responses: N=2,629; N-male=1,280; N-female=1,349)

Considering the average analysis of entrepreneurial intentions divided by fields of study (Figure 24), students enrolled in a university degree belonging to the Business and Economics have higher entrepreneurial intentions than those enrolled in the other fields of study; those enrolled on Social Science field have lower intentions than others.

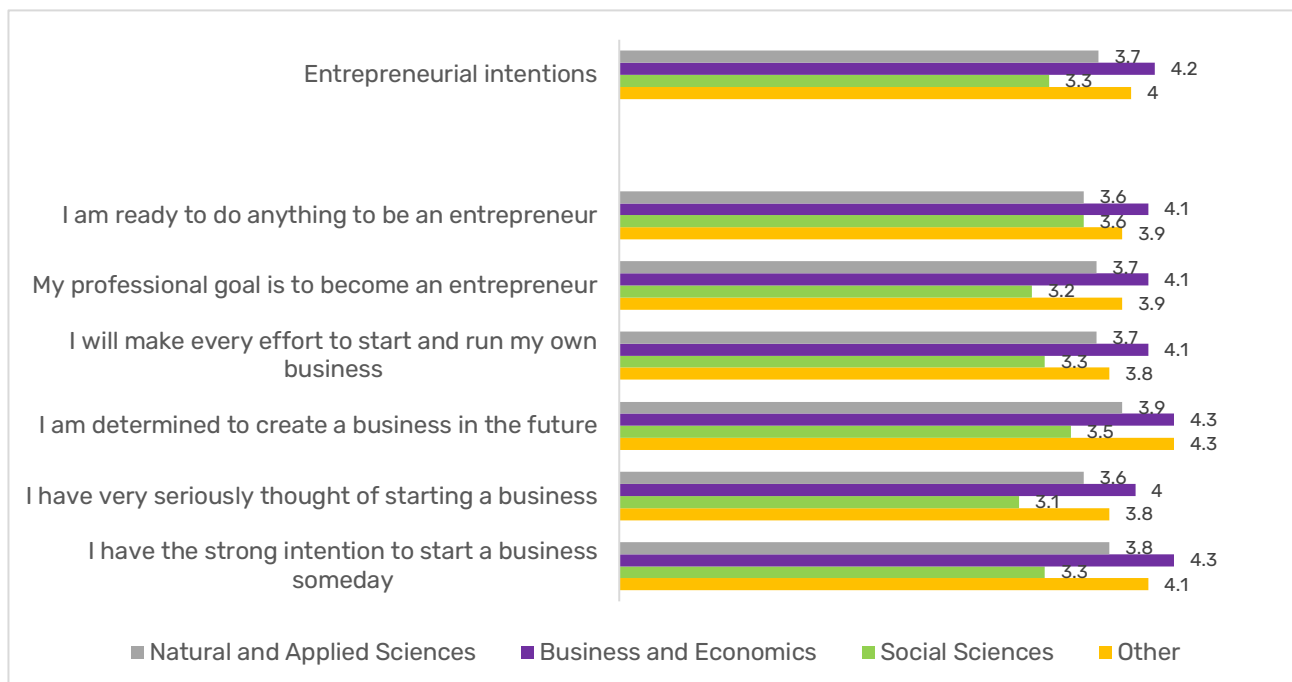


Figure 24. Average of students' entrepreneurial intentions divided by fields of study in the Italian GUESSS sample. (Valid responses: N=2,647; N-Natural and Applied Sciences=1,246; N-Business and Economics=796; N-Social Sciences=498; N-Other=107)

Figure 25 suggests that having parent entrepreneurs is associated with entrepreneurial intention of their children, in line with the stylized fact reported in extant literature (Lindquist et al., 2015).

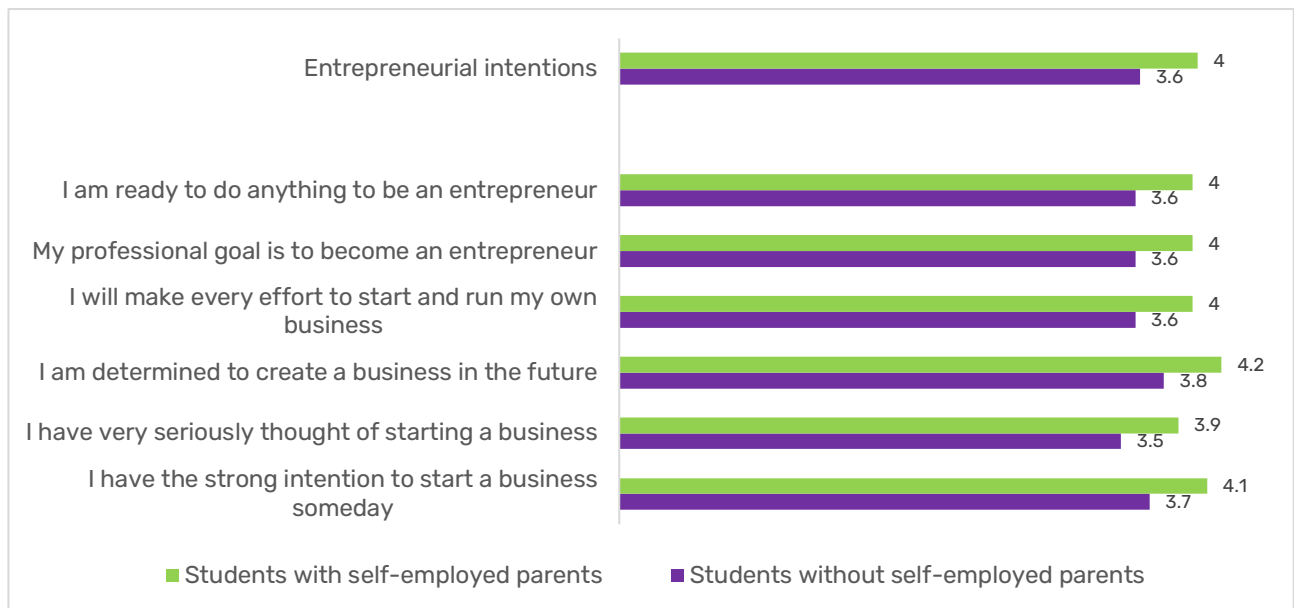


Figure 25. Average of students' entrepreneurial intentions divided by parent entrepreneurship background in the Italian GUESSS sample.
 (Valid responses: N=2,648; N-students' with self-employed parents=895; N-students without self-employed parents=1,753)

5.3. Subjective Norms to Found a Business

Besides postulating that entrepreneurial intentions are the best predictor of entrepreneurial behaviour, the Theory of Planned Behaviour explain how intentions are formed and proposes three antecedents of intentions: subjective norms, attitude toward the behaviour and perceived behavioural control (Krueger, 2000). The GUESSS survey investigates all these determinants of entrepreneurial intentions. Concerning subjective norms, students were asked to answer on a 7 points-Likert scale taken from Liñán and Chen (2009) to highlight the expected reaction of family, friends and fellow students in case they decided to start a career as entrepreneurs. Subjective norms refer to the social pressure from others (like family or friends) that a person has before performing the behaviour (Ajzen, 1991). Italian students perceive more positive reactions from their fellow students (5.3) and close friends (5.7).

	Average score Italian sample 2016	Average score Italian sample 2018	Average score Italian sample 2021
Your fellow students	5.3	5.1	5.3
Your friends	5.5	5.5	5.7
Your close family	5.3	5.5	5.5
Average	5.4	5.4	5.5

Table 3. Average of students' subjective norms in the Italian GUESSS samples.
(N 2016=4,182; N 2018=7,004; N 2021=2,685)

On average, female students receive more support from their families compared to males (5.6 for females, 5.4 for males), while the support from their friends and fellow students is the same (5.5).

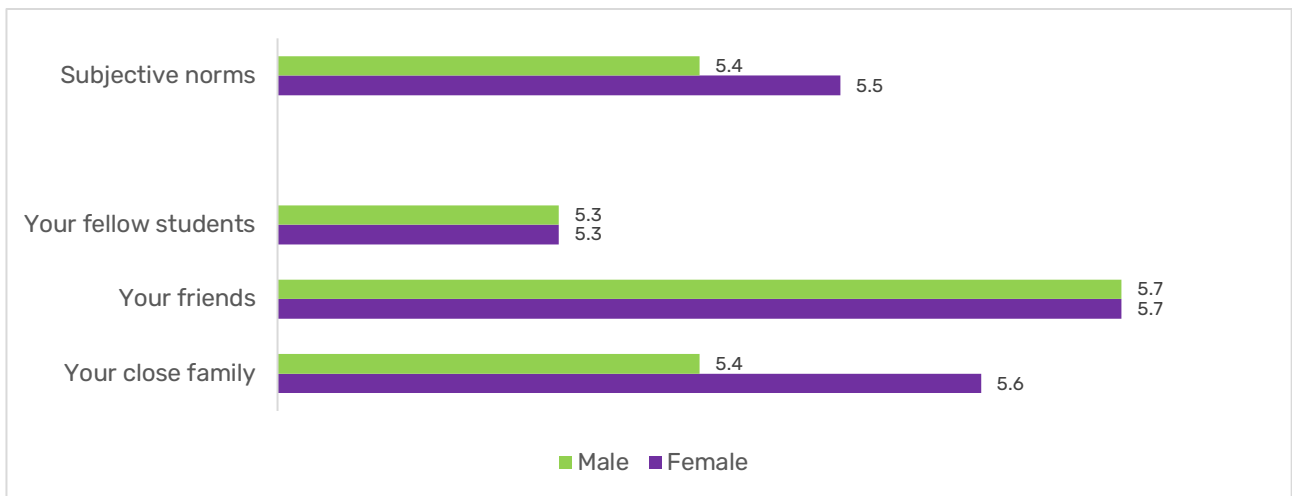


Figure 26. Average of students' subjective norms divided by gender in the Italian GUESSS sample.
(Valid responses: N=3,216; N-male=1,673; N-female=1,543)

Considering the fields of study (Figure 27), students belonging to Natural and Applied Sciences and Business and Economics fields of study have a higher level of subjective norms.

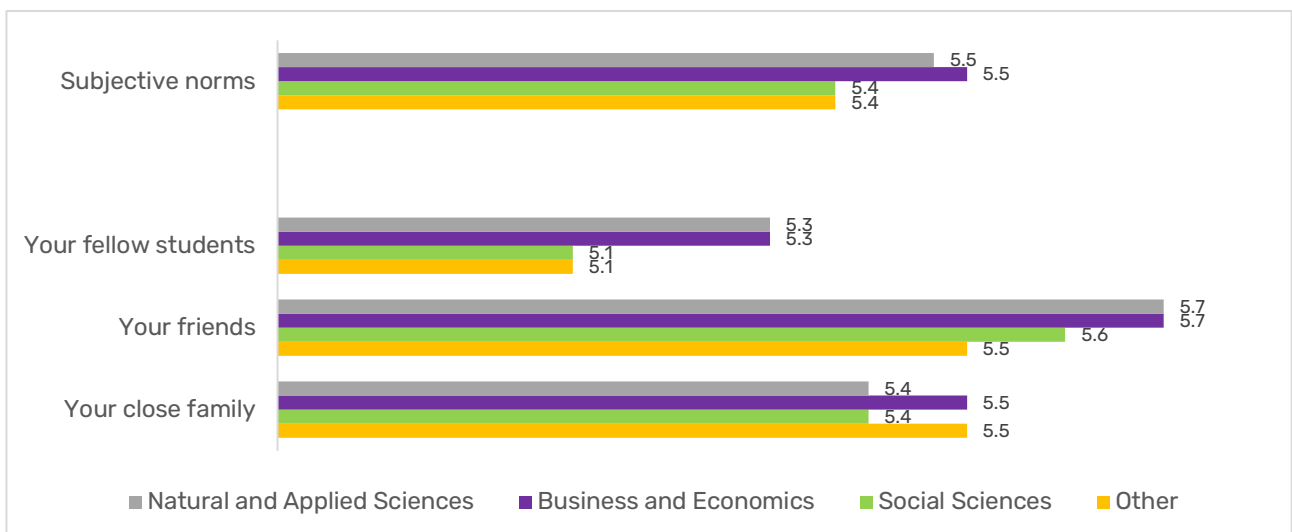


Figure 27. Average students' subjective norms divided by fields of study in the Italian GUESSS sample.
(Valid responses: N=3,236; N-Natural and Applied Sciences=1,474; N-Business and Economics=1,038; N-Social Sciences=589; N-Other=135)

Finally, comparing respondents with and without self-employed parents (Figure 28), the perceived approval from fellow students does not change. Instead, the approval from friends (5.8 for students with self-employed parents and 5.6 for students without self-employed parents) and from the close family (5.7 for students with self-employed parents to 5.3 for students without self-employed parents) significantly change between the two groups, suggesting that family and friend are more supportive towards an entrepreneurial career when students have an enterprising family background.

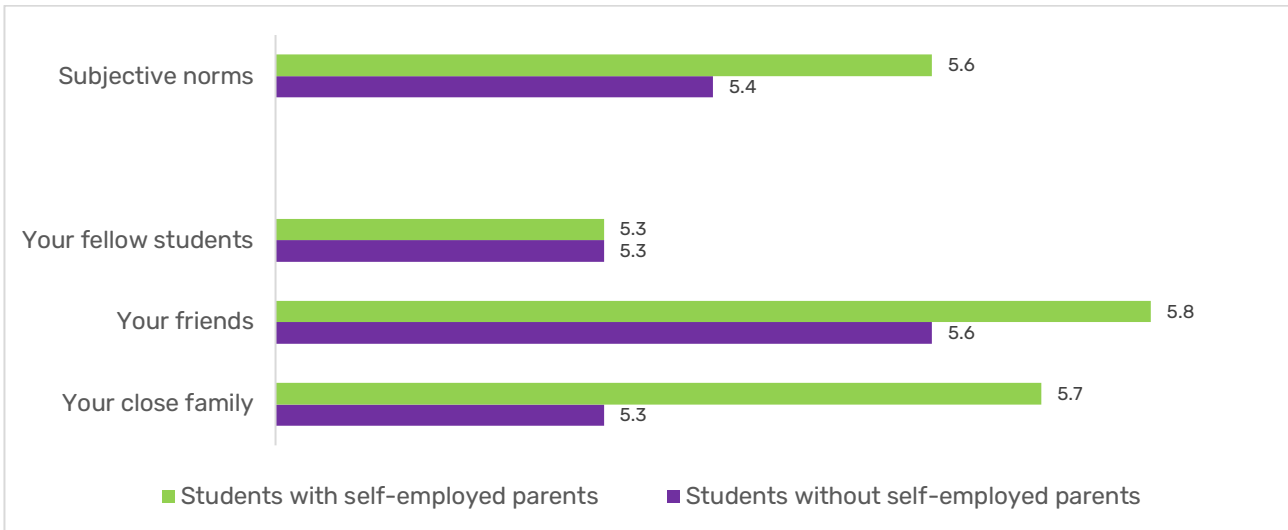


Figure 28. Average students' subjective norms divided by parent entrepreneurship background in the Italian GUESSS sample.
 (Valid responses: N=3,237; N-students' with self-employed parents=1,178; N-students without self-employed parents=2,059)

5.4. Attitudes to Found a Business

The survey investigates students' attitudes toward starting a business (i.e. the extent to which the individual evaluates favourably the target behaviour) through a 7 points-Likert 5-items scale (Liñán and Chen, 2009). It is possible to compare the results from the 2021, 2018 and 2016 waves. There are no radical changes between 2021 and 2018. The average result for 2021 is the same as 2018 and they are both lower than the ones for 2016.

	Average score Italian sample 2016	Average score Italian sample 2018	Average score Italian sample 2021
Being an entrepreneur implies more advantages than disadvantages to me	4.0	4.1	4.1
A career as entrepreneur is attractive for me	4.7	4.3	4.4
If I had the opportunity and resources, I would become an entrepreneur	4.9	4.7	4.8
Being an entrepreneur would entail great satisfactions for me	5.4	4.7	4.8
Among various options, I would rather become an entrepreneur	4.4	4.0	4.0
Average	4.7	4.4	4.4

Table 4. Average of students' attitudes towards entrepreneurship in the Italian GUESSS samples.
(N 2016=4,185; N 2018=5,601; N 2021=2,685)

Considering the gender differences (Figure 29), again, females report – on average – lower levels of entrepreneurial attitudes compared to male respondents. Considering fields of study (Figure 30), Business and Economics student display have higher level of average entrepreneurial attitudes.

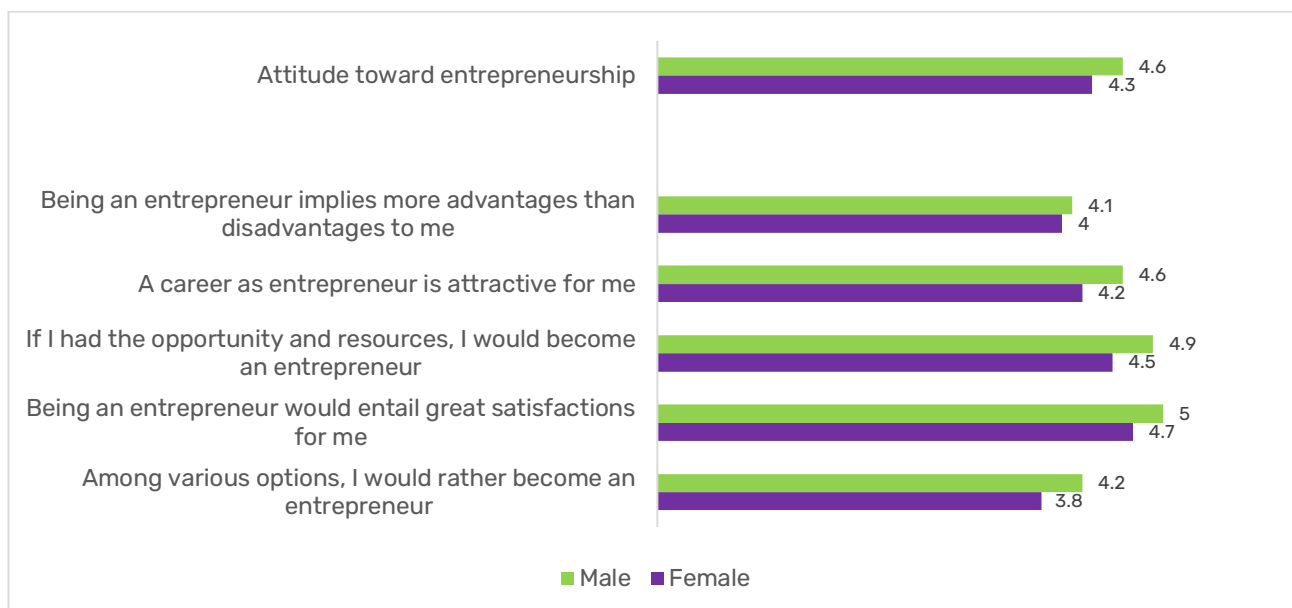


Figure 29. Average students' attitudes towards entrepreneurship divided by gender in the Italian GUESSS sample.
(Valid responses: N=2,628; N-male=1,280; N-female=1,348)

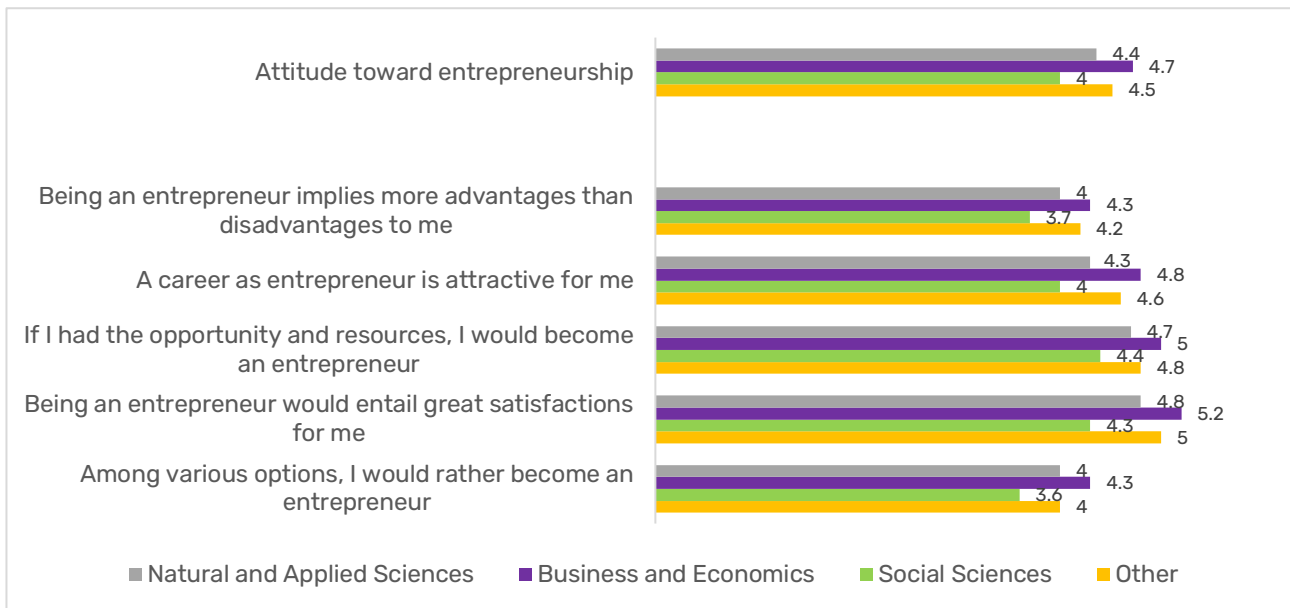


Figure 30. Average students' attitudes towards entrepreneurship divided by fields of study in the Italian GUESSS sample.

(Valid responses: N=2,645; N-Natural and Applied Sciences=1,243; N-Business and Economics=797; N-Social Sciences=497; N-Other=108)

Finally, considering the parent entrepreneurship background (Figure 31), students with self-employed parents report on average a higher level of entrepreneurial attitudes.

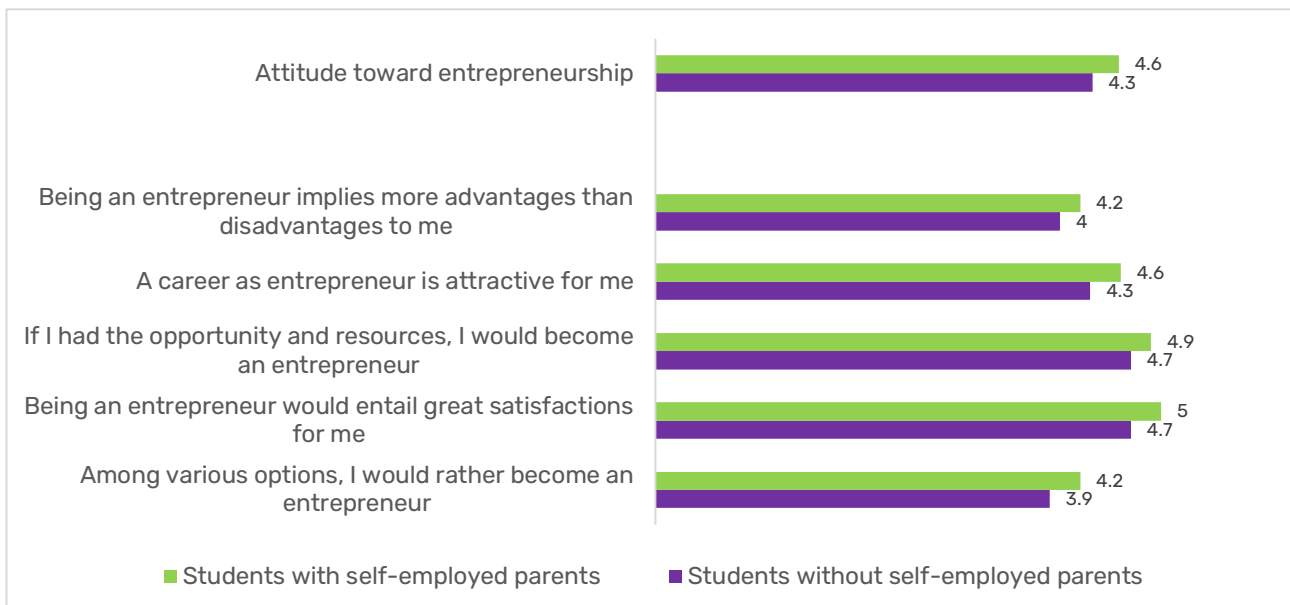


Figure 31. Average students' attitudes towards entrepreneurship divided by parent entrepreneurship background in the Italian GUESSS sample.

(Valid responses: N=2,646; N-students' with self-employed parents=892; N-students without self-employed parents=1,754)

5.5. Entrepreneurial Self-efficacy to Found a Business

A key antecedent of individuals' entrepreneurial intentions and behaviours investigated in the GUESSS survey is entrepreneurial self-efficacy. In general, self-efficacy is defined as an individual's conviction of being capable of efficiently organizing and performing actions and plans in order to produce the results wanted (Chen et al., 1998) and describes individuals'

assessment of their “capabilities to mobilize the motivation, cognitive resources, and courses of action needed to exercise control over events in their lives” (Wood and Bandura, 1989, p. 408). Considering more specifically entrepreneurship as target behaviour, the entrepreneurial self-efficacy of individuals is based on their perceived entrepreneurial skills (Zhao et al., 2005). To evaluate their entrepreneurial self-efficacy, in the GUESSS survey students had to rate their entrepreneurial performing task on a 7-points Likert scale taken by Zhao et al. (2005).

	Average score Italian sample 2016	Average score Italian sample 2018	Average score Italian sample 2021
Successfully managing a business	4	4.1	4.1
Commercializing a new idea or development	4.2	4.1	4
Building up a professional network	4.2	4	4.1
Being a leader and communicator	4.7	4.7	4.8
Managing innovation within a business	4	4	4.1
Creating new products and services	3.9	3.8	3.9
Identifying new business opportunities	4	3.9	4
Average	4.1	4.1	4.1

*Table 5. Average of students' entrepreneurial self-efficacy in the Italian GUESSS samples.
(N 2016 4,187; N 2018=5,575; N 2021=2,685)*

It is possible to make a comparison between the results from the 2016, 2018 and 2021 waves. In all these waves, Italian respondents perceive themselves as good communicators and leaders, while their perceived skills at creating new products and services or at identifying new business opportunities tend to be the lowest. In general, results are quite stable across waves. In the Figure 32 we show how entrepreneurial self-efficacy differs between male and female students. This analysis is in line with the stylized fact according to which males tend to have more confidence in their entrepreneurial skills (Wilson et al., 2007).

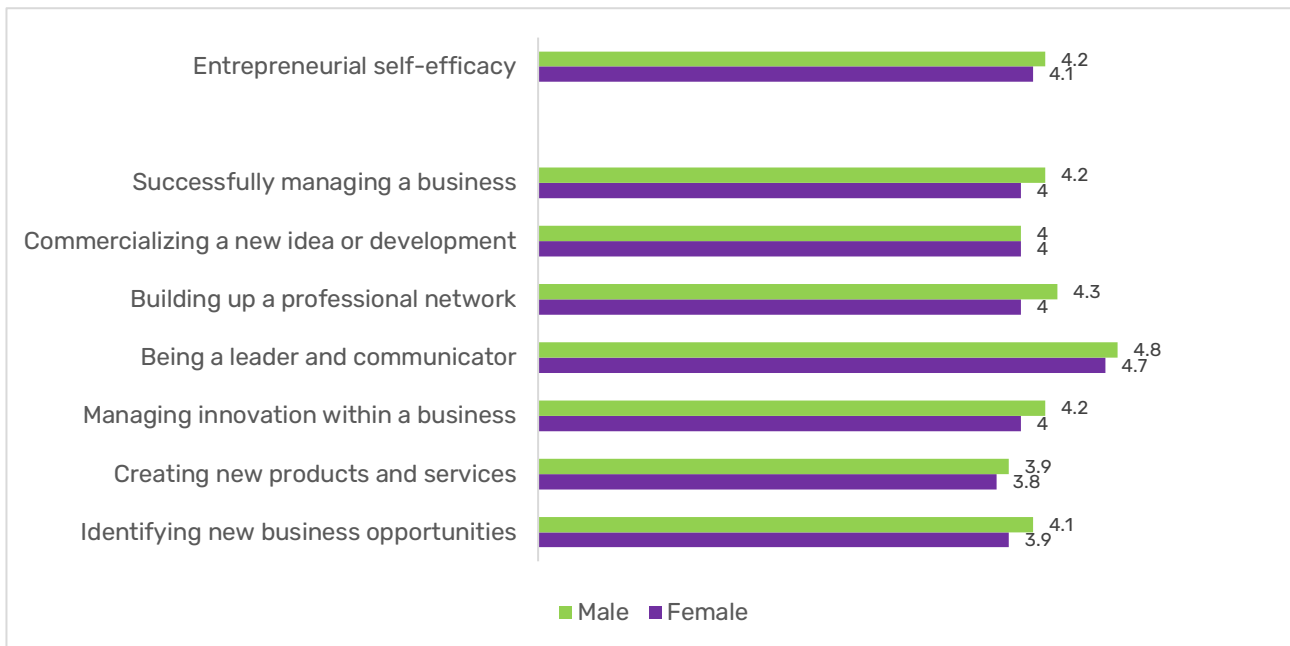


Figure 32. Average of students' entrepreneurial self-efficacy divided by gender in the Italian GUESSS sample. (Valid responses: N=2,616; N-male=1,272; N-female=1,344)

Analysing entrepreneurial self-efficacy considering the students' field of study (Figure 33), it is possible to notice that Business and Economics students assigned the highest scores to their entrepreneurial self-efficacy, followed by Natural and Applied Sciences students. This pattern is coherent with the low diffusion of entrepreneurship education and the worse perceived entrepreneurial climate in Social Sciences compared to the Business and Economics disciplinary areas.



Figure 33. Average of students' entrepreneurial self-efficacy divided by field of study in the Italian GUESSS sample. (Valid responses: N=2,632; N-Natural and Applied Sciences=1,234; N-Business and Economics=792; N-Social Sciences=499; N-Other=107)

The figure below (Figure 34) shows that, on average, the entrepreneurial self-efficacy of students with self-employed parents is higher compared to those students without any parent entrepreneurs. A possible explanation provided by the literature is that university students exposed to their parents' business can experience some forms of vicarious learning or experiential learning by getting somehow involved in the parents' firm (Hahn et al., 2020; Hahn et al., 2021a; Hahn et al., 2017).

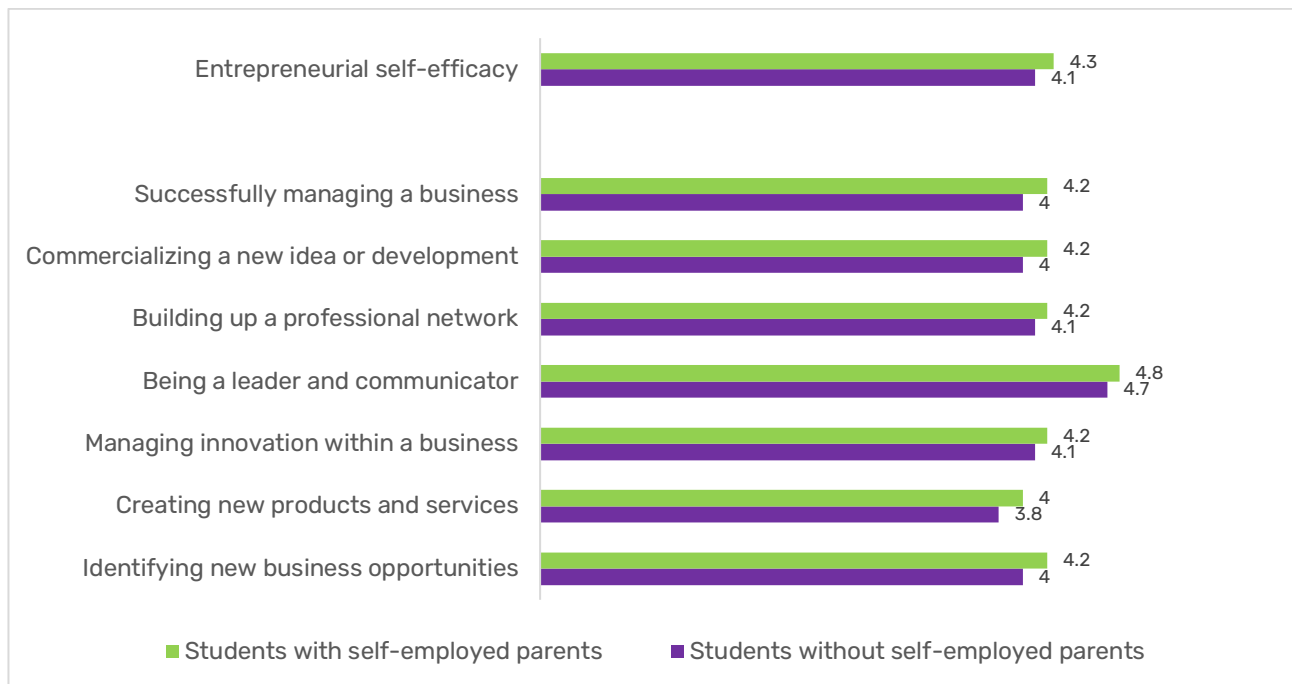


Figure 34. Average of students' entrepreneurial self-efficacy divided by parent entrepreneurship background in the Italian GUESSS sample.
 (Valid responses: N=2,633; N-students' with self-employed parents=887; N-students without self-employed parents=1,746)

6. NASCENT ENTREPRENEURS AMONG STUDENTS

The GUESSS project dedicates a part of the survey to students' entrepreneurial activities.

The survey identifies students who are either in the process of creating their own business named "nascent entrepreneurs" or who have already created one named "active entrepreneurs".

This section has the purpose to describe the nascent entrepreneurs' category in the Italian GUESSS sample.

6.1. Profile of Nascent Entrepreneurs

Students were asked: "Are you currently trying to start your own business/to become self-employed?" to identify potential nascent entrepreneurs. As shown in the figure below, the percentage of students that are currently trying to start their own business (or nascent entrepreneurs) in the Italian sample is 16.1% (531 students), far less compared to the international sample, where nascent entrepreneurs represent 28.4% (75,838) of the sample. 66% of students who are in the process of starting a business are males (354 respondents), while only 34% are females (173 respondents).

To focus our analysis on those respondents who are in the process of starting a business but are not yet business owners, we define as *pure* nascent entrepreneurs the students who have answered "yes" to the question "Are you currently trying to start your own business/to become self-employed?" and "no" to the question "Are you already running your own business/are you already self-employed?". The analyses of this section are based on these 382 respondents. Considering pure nascent entrepreneurs (382 out of 531), 65.5% are males (250 respondents) and 34% are females (130 respondents). Since male and female students are almost equally represented in the Italian GUESSS sample, this figure suggests that males are more likely to be involved in the founding process compared to females.

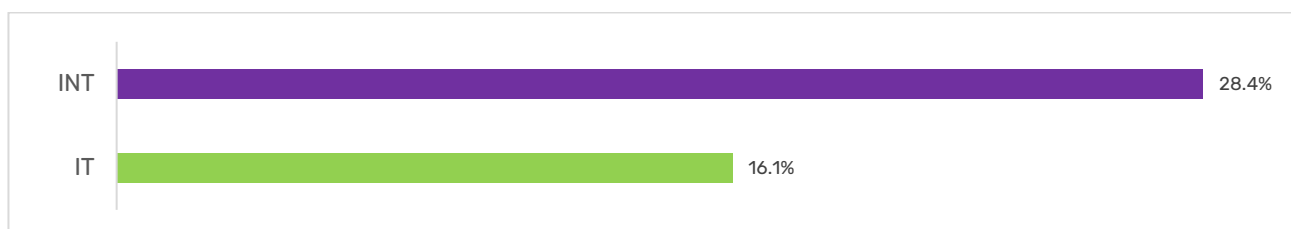


Figure 35. Nascent entrepreneurs in the Italian and International GUESSS samples.
(IT=3,294; INT=267,366)

Considering nascent entrepreneurs' field of study (Figure 36), most of them are studying in Natural and Applied Sciences (160; 41.9%) followed by Business and Economics (144; 37.7%), and Social Sciences (57; 14.9%).

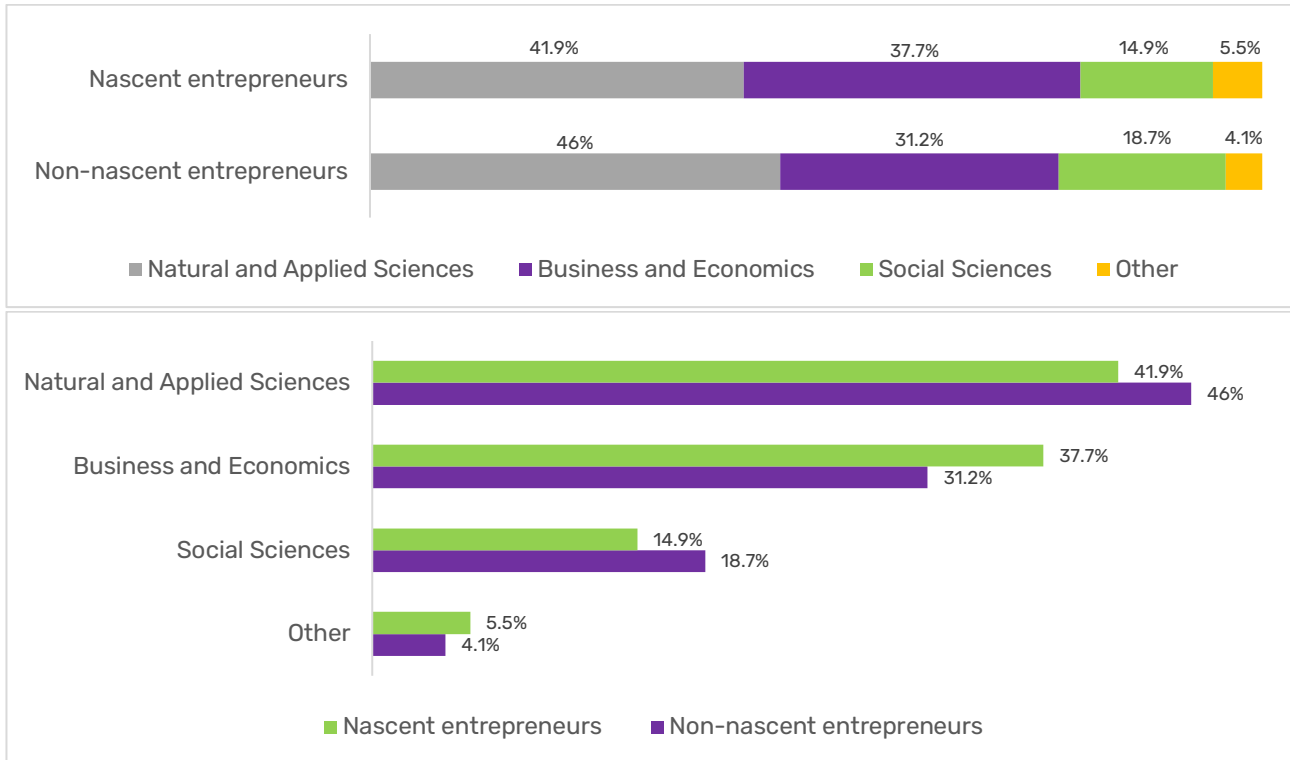


Figure 36. Fields of study of nascent and non-nascent entrepreneurs in the Italian GUESSS sample. (Valid responses: N-Nascent entrepreneurs=382; N-Non-nascent entrepreneurs=2,912)

Considering nascent entrepreneurs' level of study (Figure 37), most of them are studying in a Bachelor program (250; 65.5%), followed by them studying in a Master program (124; 32.5%).

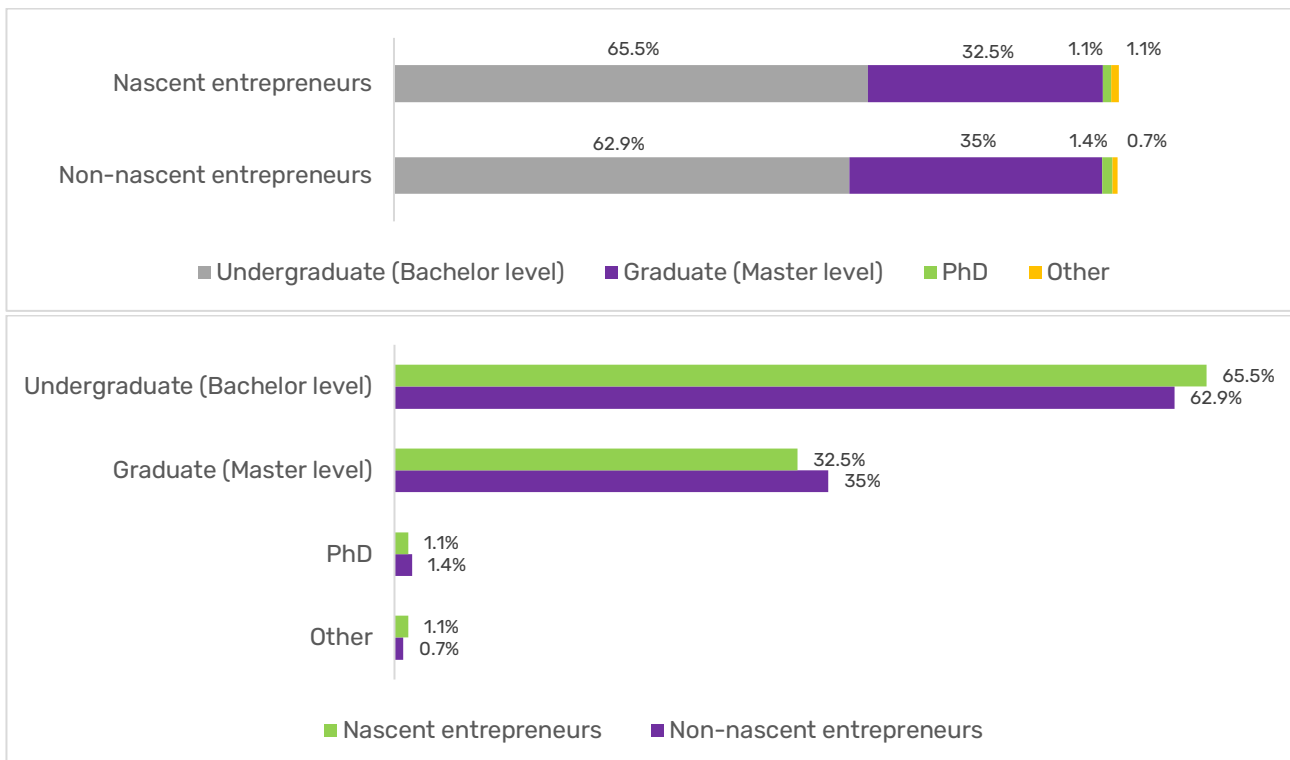


Figure 37. Levels of study of nascent and non-nascent entrepreneurs in the Italian GUESSS sample. (Valid responses: N-Nascent entrepreneurs=382; N-Non-nascent entrepreneurs=2,909)

6.2. Profile of the To-Be-Founded Companies

The figure below shows the industries of the nascent companies. The most represented are Information Technology and communication (IT services) (12.7%), followed by Advertising/Design/Marketing (10.3%) and Human Health (9.5%).

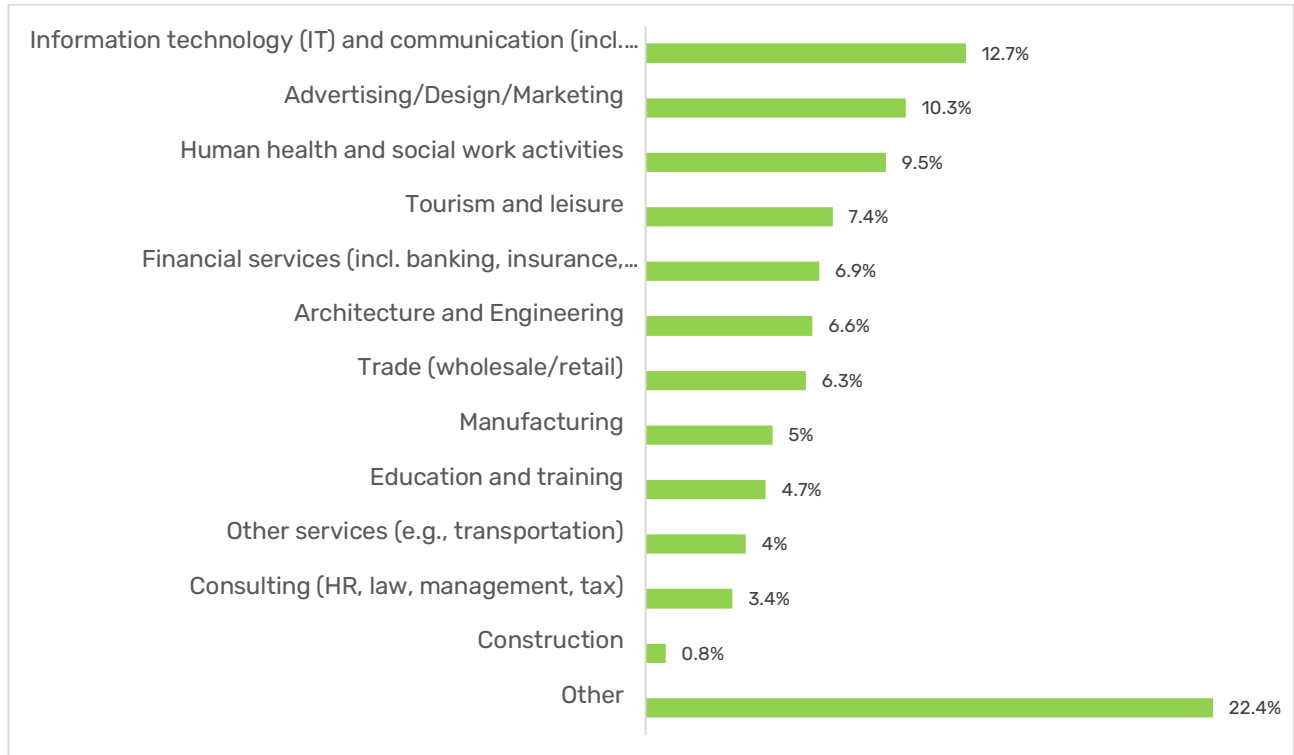


Figure 38. Industries of to-be-founded companies in the Italian GUESSS sample.
(Valid responses: N=379)

In order to understand how far nascent entrepreneurs have already advanced in the process of founding a new business, they were asked to indicate which “gestation activities” they had already implemented. As shown in the figure below, most of the students are in the early stages of the business: most of them are still discussing their idea with potential customers (36.6%) or have collected information about markets or competitors (53.9%), while 22.5% have done nothing of the above so far. Most of the activities already carried out by the respondents are steps that are likely to be performed at university during the entrepreneurship-related project (e.g., business plan, marketing, competitor analysis) and typically require less investments.

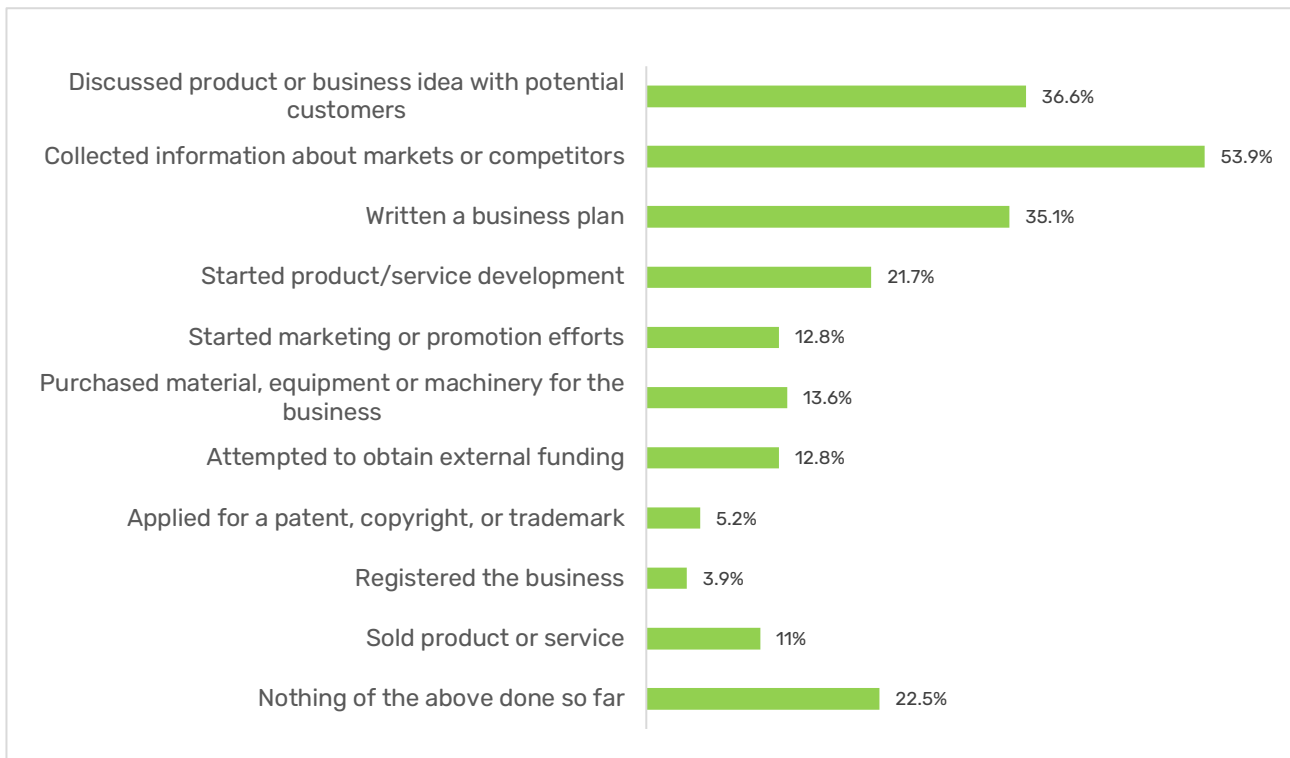


Figure 39. Steps taken to found a business (multiple responses) in the Italian GUESSS sample. (Valid responses: N=291)

6.3. Motivations and Goals of Nascent Entrepreneurs

As it is possible to understand from the figure below, in the GUESSS survey students were asked to measure their level of individual entrepreneurial orientation on a 7-points Likert scale by Bolton and Lane (2012). Entrepreneurial orientation describes a multidimensional construct that describes firms' and individuals' tendency to adopt an entrepreneurial posture and, more specifically, to display proactiveness, innovativeness and risk propensity in its behaviours (Covin et al., 2020; Wales et al., 2020). Literature largely acknowledges that firms endowed with EO, prone to take risks, take forward-looking initiatives and innovate, perform better (Wales, 2016). While EO is a firm-level construct, scholars have recently started to use this construct at the individual-level (e.g., Covin et al., 2020). Since nascent entrepreneurs are representative of the entrepreneurial activity they are starting, assessing their personal EO allows to measure the level of risk-taking, innovativeness and proactiveness they have in approaching the founding process.

Looking at the first four items of Figure 40, students from the Italian sample seem to be more risk-taking compared to the international sample.

Responses also show that Italian nascent entrepreneurs report high level of innovativeness (items 5-7 of the figure below) and of proactiveness (items 8-10 of the figure below) compared to their international counterparts.

Taking everything into account, Italian nascent entrepreneurs display – on average – higher levels of entrepreneurial orientation compared to the international sample. A possible

explanation is that the lower percentage of nascent entrepreneurs (compared to the international sample) in the Italian sample is formed by opportunity-driven (rather than necessity-driven) student entrepreneurs (Fini et al., 2016), who are more likely to adopt an entrepreneurial posture to proactively act upon new business opportunities taking the risks to do so.



Figure 40. Average of students' perceived level of risk-taking, innovativeness and proactiveness in the Italian and International GUESSS samples. (IT=382; INT=75,838)

6.4. Founding Partners of Nascent Entrepreneurs

In this paragraph, it is studied how the role of the entrepreneurial team influences students' future companies. As shown in the figure below, only 42.8% of Italian nascent entrepreneurs are trying to create their own business alone. The rest of the nascent entrepreneurs plan to start their businesses with at least one partner (56%). The fraction of nascent entrepreneurs willing to start their business with a co-founder is lower in the global context (46.5%).

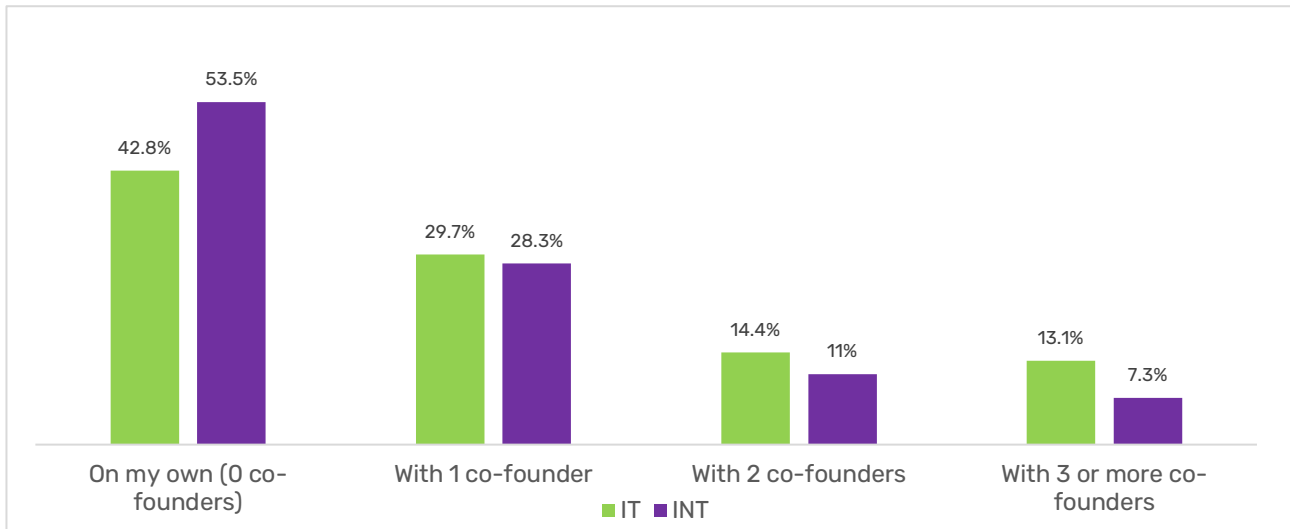


Figure 41. Number of founding partners of nascent entrepreneurs in the Italian and international GUESSS samples. (Valid responses: IT=374; INT=75,838)

As it is possible to understand from the figure below, entrepreneurs who choose to start a business on their own adopt this strategy for many different reasons: some of them opt to start the company alone because they think that the enterprise does not need a co-founder (23.9%; 38 respondents). Whereas some entrepreneurs plan to get one partner in the next future (31.4%; 50 respondents).

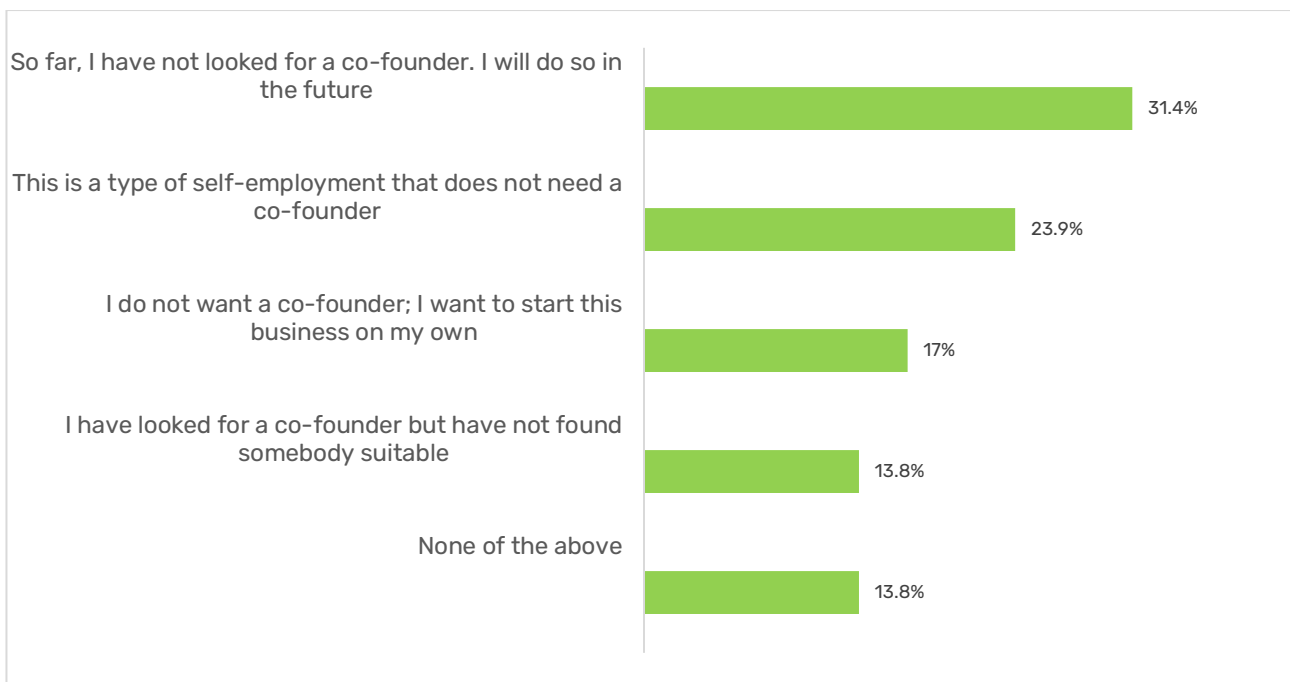


Figure 42. Students' main reasons for starting the business alone in the Italian GUESSS sample. (Valid responses: N=159)

6.5. Nascent Entrepreneurs and Considerations about Covid-19

Since the 2021 GUESSS wave was launched after the diffusion of Covid-19 pandemic and crises are known to generate new needs and entrepreneurial opportunities for venture creation (Devece et al., 2016), the survey has investigated the relationship between the creation of new

ventures and the implications of Covid-19. In particular, nascent entrepreneurs were asked: “Do you plan to create this business largely because of the implications of the Covid-19 pandemic?”. As shown in Figure 43, most nascent entrepreneurs are about to start their business not because of the implications of the Covid-19 pandemic (80.5%; 305 respondents).

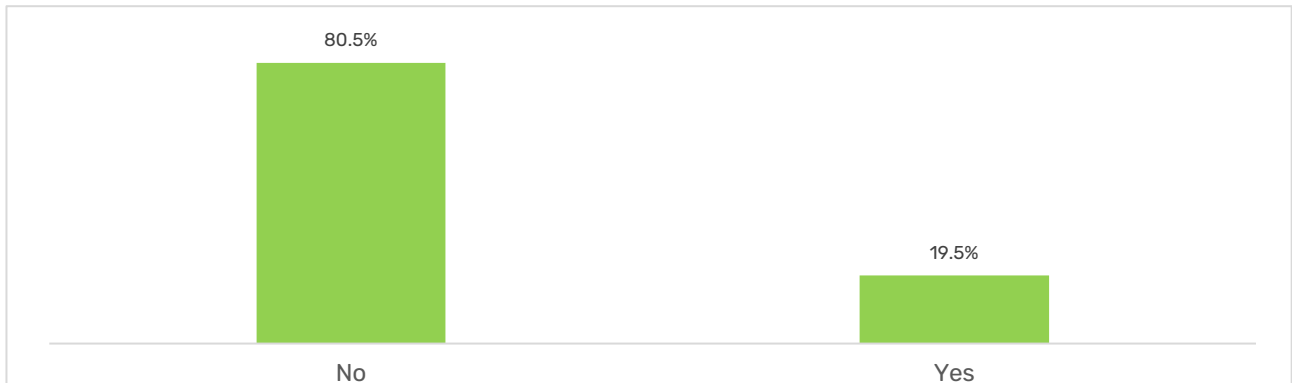


Figure 43. Nascent entrepreneurs that are about to create a business due to the pandemic in the Italian GUESSS sample.
(Valid responses: N=379).

7. ACTIVE ENTREPRENEURS AMONG STUDENTS

This section focuses on those respondents of the Italian GUESSS survey, who are already self-employed or are already running their own business (named “active entrepreneurs”). In 2021, they represent 6.9% of the sample (227 students out of 3,294). This percentage has decreased compared to the previous wave (in 2018 7.2%, including 510 students out of 7,122) while it has increased in comparison to 2016 (4.9%). Moreover, the Italian fraction continues to be lower than the share of active entrepreneurs in the international sample (10.8%).

7.1. Profile of Active Entrepreneurs

Most of active entrepreneurs belong to the Business and Economics area (100; 44.1%), followed by students from Natural and Applied Sciences area (79; 34.8%) and Social Sciences area (39; 17.2%).

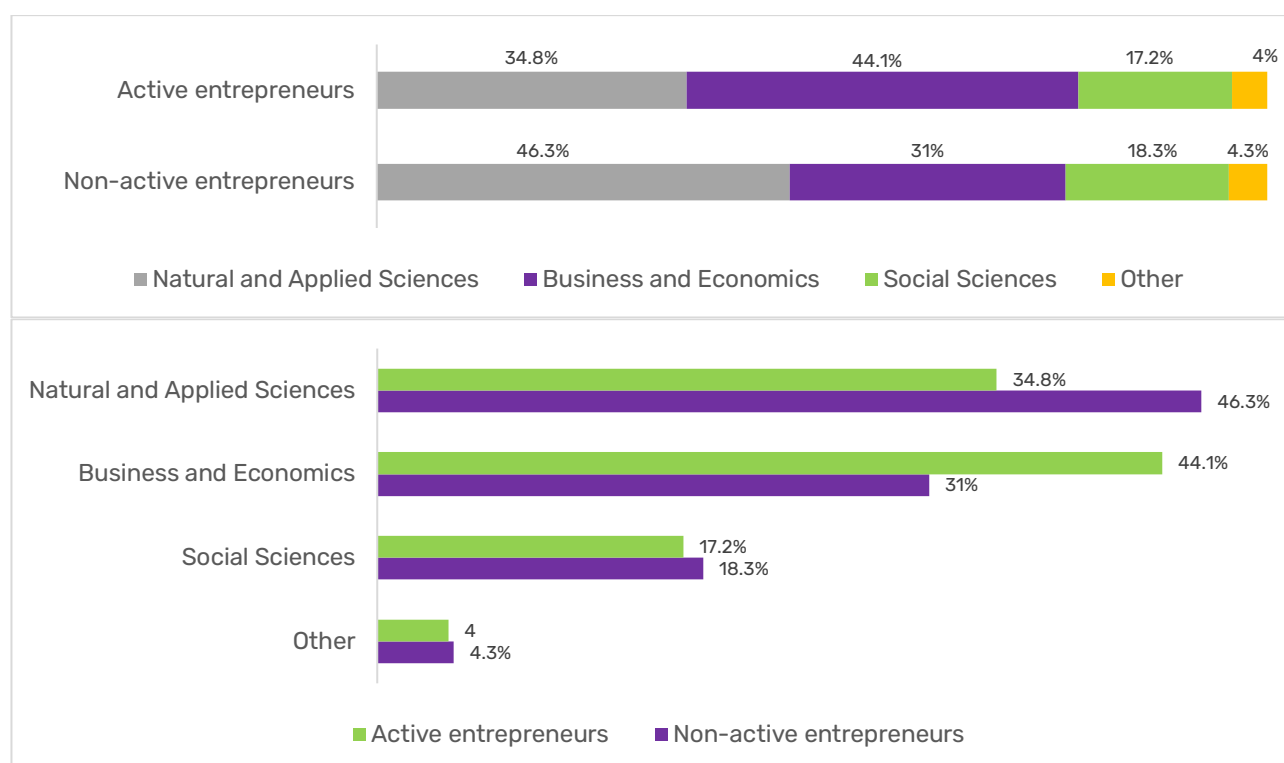


Figure 44. Fields of study of active and non-active entrepreneurs in the Italian GUESSS sample. (Valid responses: N-Active entrepreneurs=227; N-Non-active entrepreneurs=3,067)

Considering their level of study, most of them are enrolled in a Bachelor program (143; 63.3%), followed by students studying in a Master program (76; 33.6%).

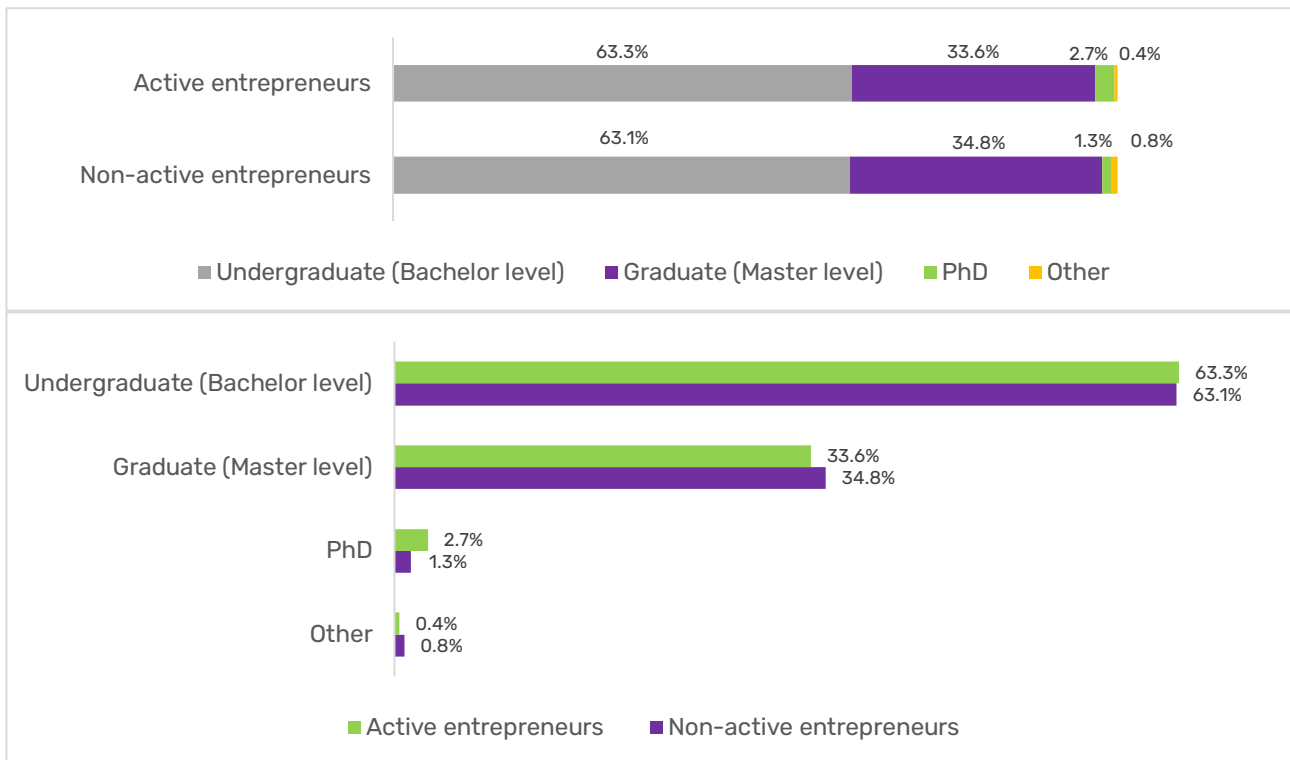


Figure 45. Levels of study of active and non-active entrepreneurs in the Italian GUESSS sample. (Valid responses: N-Active entrepreneurs=226; N-Non-active entrepreneurs=3,065)

7.2. Profile of Founded Companies

The majority of companies were founded in the last 5 years (90%; 151 out of 168 valid responses): in particular 89 out of 168 are founded during the Covid-19 pandemic years (2020 and 2021 years).

The totality of the companies is considered a small business (less than 50 employees).

The figure below shows the industries of Italian active entrepreneurs' companies: most firms operate in the Tourism and Leisure (10.6%), Advertising/Design/Marketing industry (10.1%) and Education and Training industry (9.2%).

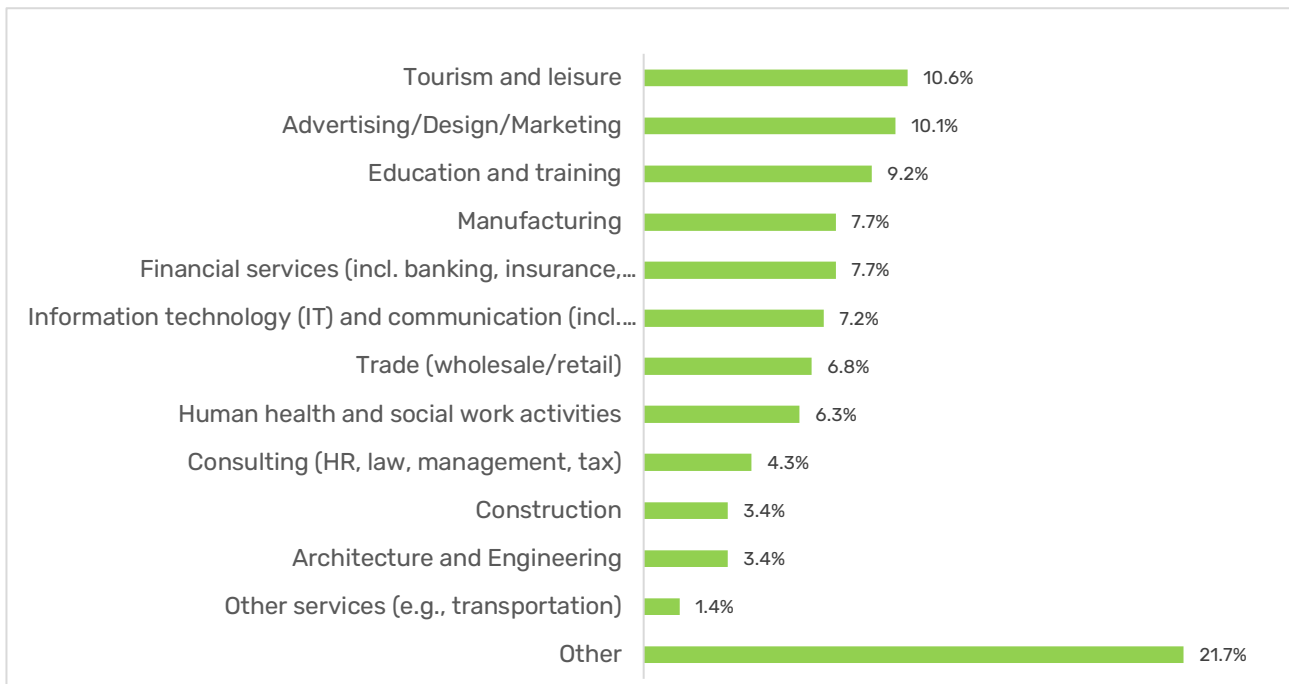


Figure 46. Industries of active entrepreneurs' companies in the Italian GUESSS sample. (Valid responses: N=207)

7.3. Motivations and Goals of Active Entrepreneurs

Entrepreneurship literature conceptualizes different types of founders' social identity, which describes the entrepreneurs' self-concept infused in their ventures in terms of basic social motivation, basis of self-evaluation and frame of reference (Fauchart and Gruber, 2011). More specifically, literature identifies three different identity types named Darwinian, Communitarian and Missionary (Hahn, 2020): (i) entrepreneurs with a darwinian identity associate new firm development with conventional business-oriented concepts and are motivated by the desire to make money and beat competition; (ii) entrepreneurs with a communitarian identity try to help a specific community of target customers; (iii) entrepreneurs with a missionary identity consider their business as vehicle for social change to make the world better.

To assess student entrepreneurs' social identity, respondents were asked to measure through a 7-points Likert scale by Sieger et al. (2016) their level of agreement on the reasons why they started their own business (i.e. their social motivation), the achievements considered important as firm founder (i.e. their basis of self-evaluation) and the frame of reference considered when managing their firm (i.e. their frame of reference).



Figure 47. Average of main motivations and goals of active entrepreneurs in the Italian GUESSS sample. (N=382; [1-2] Darwinians; [3-4] Communitarians; [5-6] Missionaries)

Regarding the basic social motivation (Figure 47), on average active entrepreneurs mainly created their business to advance their career in the business world (5.3) in line with the darwinian social identity. Instead, solving societal problems (e.g., social injustices or environmental problems) is considered on average as a less important motivation for starting the company (4.5).

Concerning the basis of self-evaluation (Figure 48), on average respondents prioritize aspects related to the communitarian identity, such as being able to express to their customers to share the same views, interests and values (5.5).



Figure 48. Average of main motivations and goals of active entrepreneurs in the Italian GUESSS sample. (N=382; [1-2] Darwinians; [3-4] Communitarians; [5-6] Missionaries)

Concerning entrepreneurs' frame of reference, Figure 49 shows that – on average – respondents focus on how to face societal challenges (in line with the communitarian identity) and achieving competitive advantages (in line with the darwininian identity).



Figure 49. Average of main motivations and goals of active entrepreneurs in the Italian GUESSS sample. (N=382; [1-2] Darwinians; [3-4] Communitarians; [5-6] Missionaries)

7.4. Founding Partners of Active Entrepreneurs

As shown in Figure 50, only 27.9% of Italian active entrepreneurs (57 respondents) have created their own business alone; this fraction is far lower than the international sample (37.3%). The rest of the Italian active entrepreneurs have started their businesses with at least one partner (72%; 147 respondents).

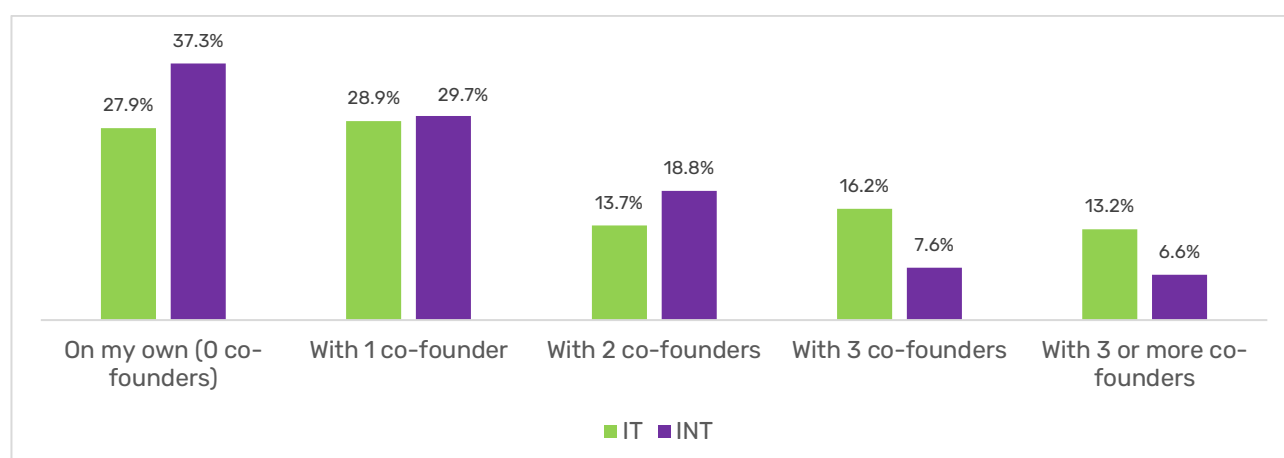


Figure 50. Number of founding partners of active entrepreneurs in the Italian and international GUESSS samples. (Valid responses: IT=204; INT=28,877)

Active entrepreneurs were asked to assess the performance of their business compared to competitors along various dimensions on a 7-points Likert scale (Eddleston et al., 2008). The performance dimension that received the highest score is the innovativeness of the firm (5.2). This suggest that Italian active entrepreneurs tend to perceive their firm as innovative, considering their competitors.

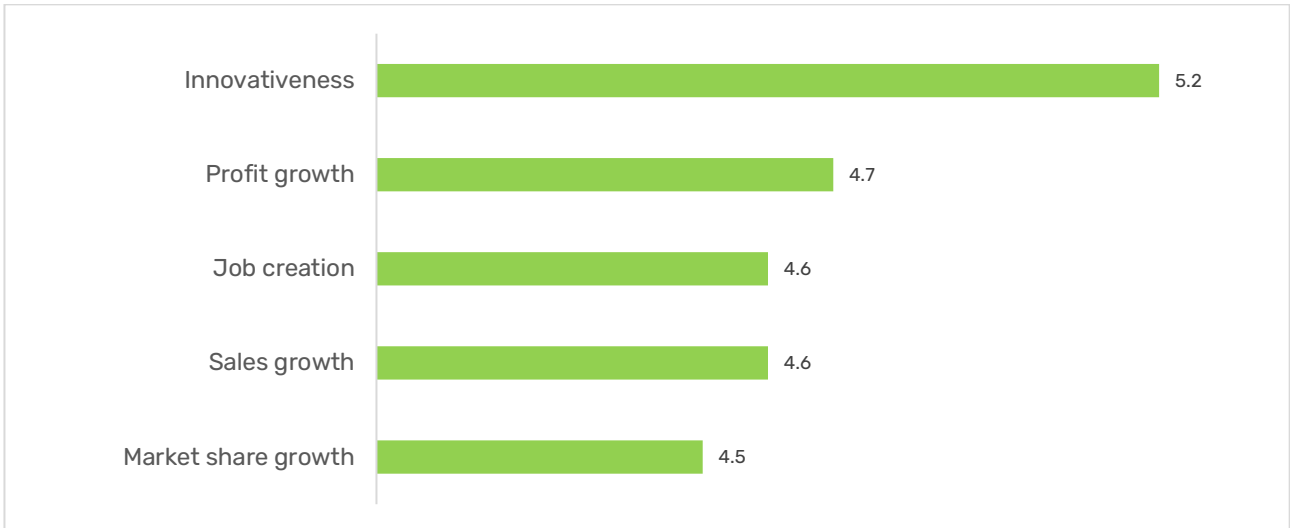


Figure 51. Performance of active entrepreneurs' companies. (N=382)

7.5. Active Entrepreneurs and Considerations about Covid-19

The survey has investigated the relationship between the creation of new ventures and the implications of Covid-19. In particular, active entrepreneurs were asked: "Have you created your business largely because of the implications of the Covid-19 pandemic?". As shown in Figure 52, most active entrepreneurs (70.4%; 145 respondents) created their business not because of the implications of Covid-19.

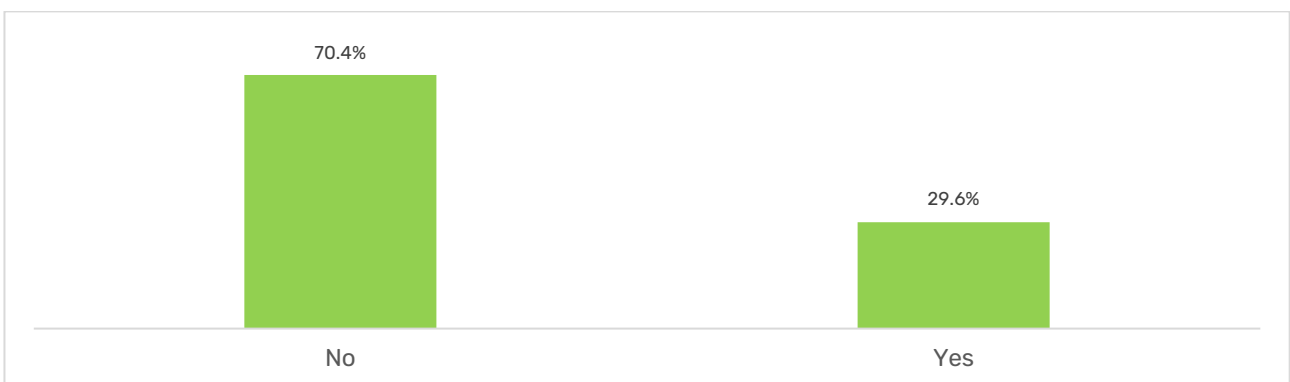


Figure 52. Active entrepreneurs that created a business due to the pandemic in the Italian GUESSS sample. (Valid responses: N=206)

8. POTENTIAL SUCCESSORS AMONG STUDENTS

This section focuses on potential successors, defined as students who have at least one self-employed and/or majority shareholder parent. In the Italian sample, 1,274 students are potential successors (38.7% of the sample). In particular, 128 of them already are active entrepreneurs.

Based on their expressed career choice intentions, 70 and 76 students are planning to succeed in their parents' firm respectively right after studies and 5 years after graduation. 38 respondents declare they want to be the successors of the family's business both right after their studies and 5 years after the graduation.

8.1. Profile of Potential Successors

Considering potential successors' field of study (Figure 53), most of them are studying in Natural and Applied Sciences (507; 44.2%), followed by Business and Economics (402; 35.1%).

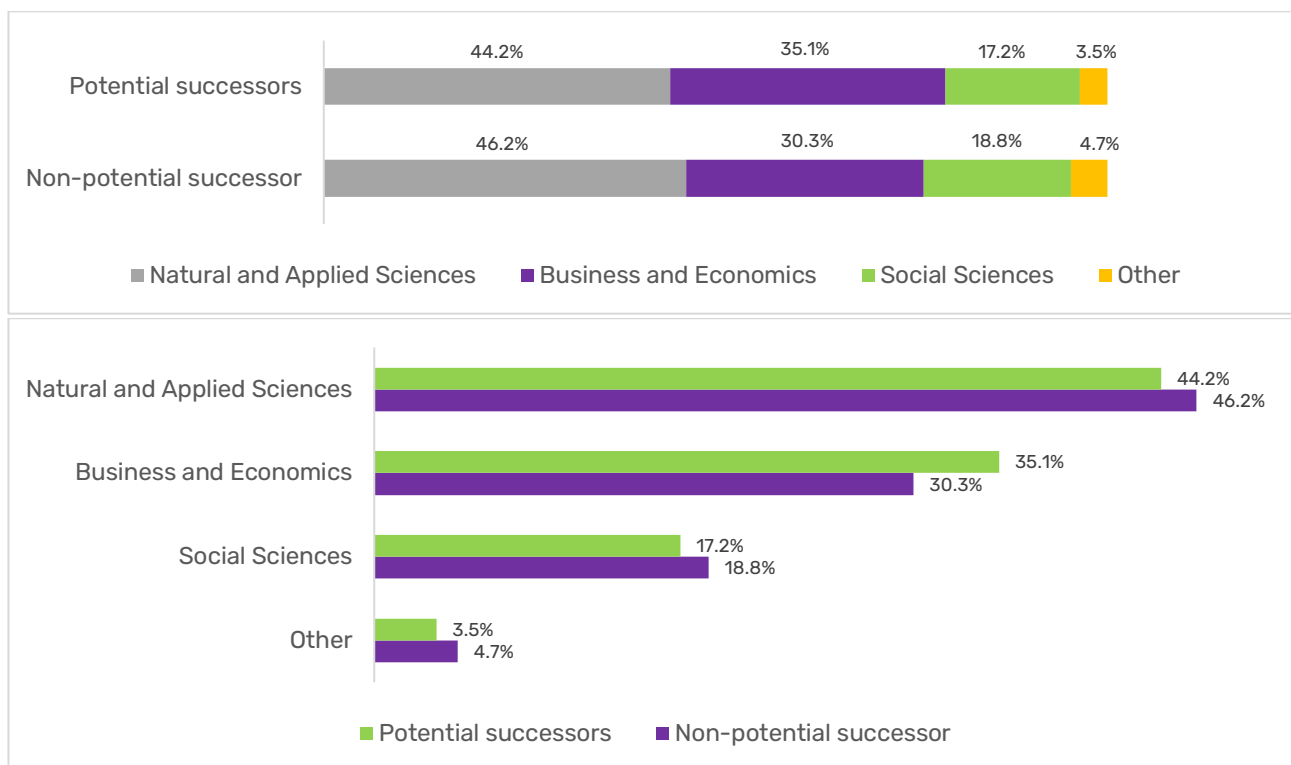


Figure 53. Field of study of potential and non-potential successors in the Italian GUESSS sample. (Valid responses: N-Potential successors=1,146; N-Non-potential successors=2,148)

Considering their level of study (Figure 54), most of them are studying in a Bachelor program (718; 62.7%), followed by students from a Master program (407; 35.5%).

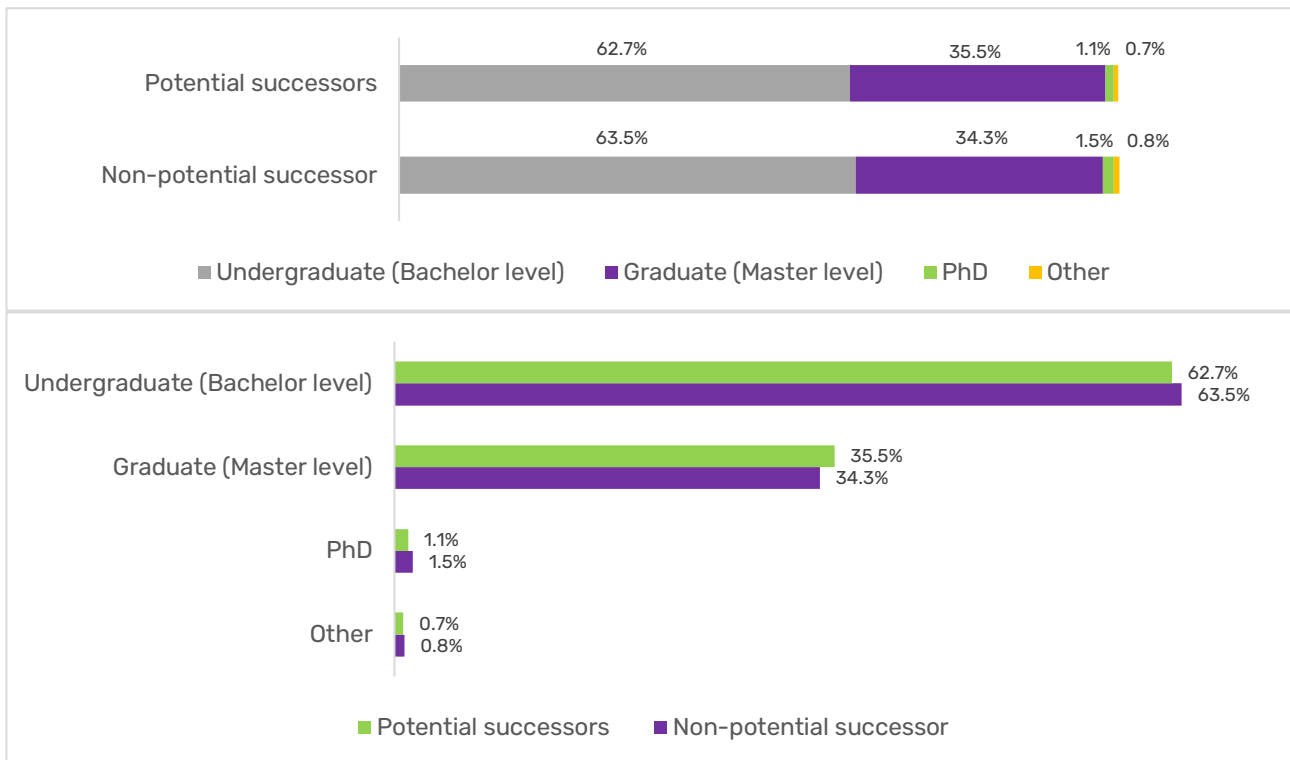


Figure 54. Level of study of potential and non-potential successors in the Italian GUESSS sample. (Valid responses: N-Potential successors=1,146; N-Non-potential successors=2,145)

8.2. Career Aspirations of Potential Successors

To measure the intensity of the intention to take over the parents' business, the survey uses a 6-items 7-points Likert scale taken from Liñán and Chen (2009) (Figure 55). As shown in the figure below, on average succession intentions are quite low. A possible explanation is that the

possibility to take over parents' business and pass the family business to next generation is seen as unlikely for young university students.



Figure 55. Average of intentions towards succession of parents' business in the Italian GUESSS samples. (N=1,146)

8.3. Industry of the Family Business

Considering the family businesses, most of them were founded before the 2000s (64.3%; 551 firms out 857 valid responses), 18.8% were founded between 2000 and 2010s (161 firms) and 16.9% between 2011 and 2021s (145 firms). Only 31 companies were founded during the Covid-19 pandemic (2020 and 2021).

The figure below (Figure 56) shows the industries of the family businesses. The most represented industries are Manufacturing (13.2%), Trade (11.3%) and Construction (10.5%). It is particularly interesting to notice that the most represented family industries are not present in the nascent entrepreneurs' firms. In fact, most of the nascent companies are in industries like Advertising/Design/Marketing and Information Technology (IT).

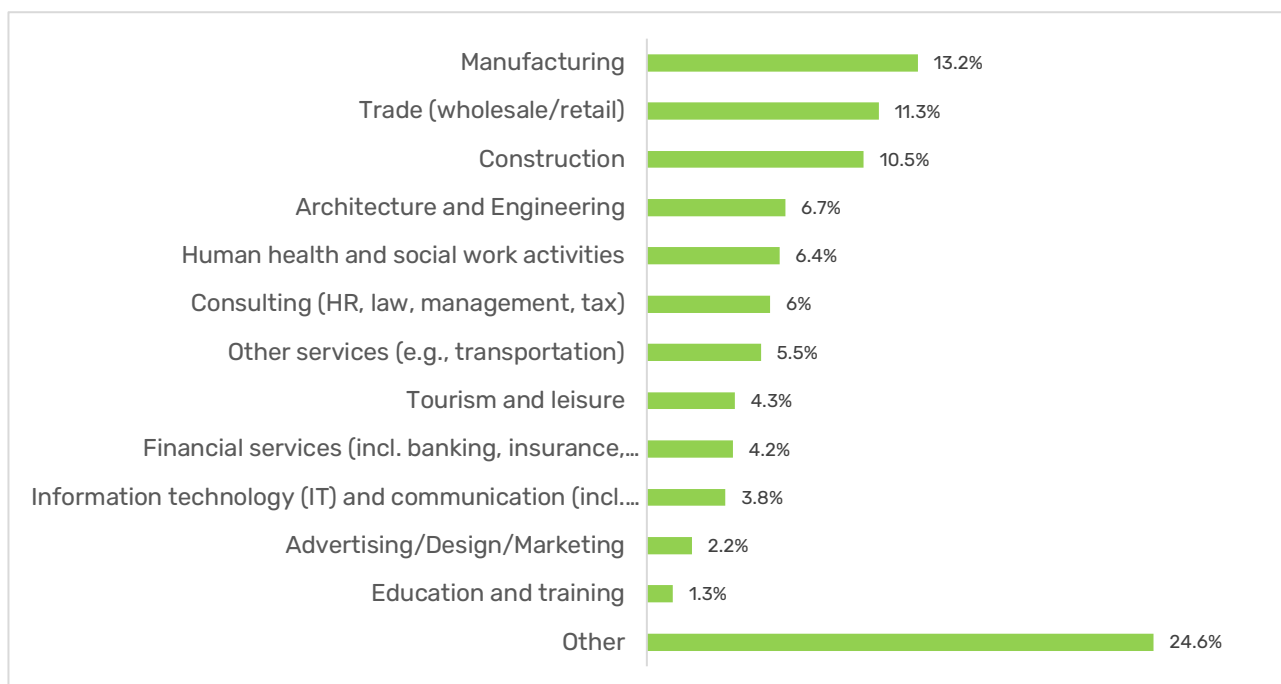


Figure 56. Industry of family businesses in the Italian GUESSS sample.
(Valid responses: N=1,101)

Table 6 displays the ownership of the students' parents in the parents' business. Most of them own more the 50% of the business (69.7%).

Parents' ownership share	N	%
0 - 49 %	166	16.0%
50 %	149	14.3%
51 - 100 %	725	69.7%
Total	1,040	100%

Table 6. Parents' ownership shares in the Italian GUESSS samples.

In the table below (Table 7), it is shown the proportion of respondents that has some shares of the parent's business. Most of them had not stake ownership.

Stake ownership in the parent's business	N	%
No	981	90.4%
Yes	104	9.6%
Total	1,085	100%

Table 7. Stake ownership in the parents' business in the Italian GUESSS samples.

In the table below (Table 8), it is possible to find the number of respondents who has some work experience in their parents' business. Currently, almost the 40% of them has already worked for their parents' business.

Working for the parent's business	N	%
No	660	60.2%
Yes	437	39.8%
Total	1,097	100%

Table 8. Students working for the parents' business in the Italian GUESSS samples.

In the survey respondents were asked whether they consider their parent’s business as a “family business”: 50.3% of respondents did not regard the parents’ firm as a family business (Table 9).

Regarding parent’s business as a “family business”?	N	%
No	549	50.3%
Yes	543	49.7%
Total	1,092	100%

Table 9. Students’ consideration of parents’ business as a “family business” in the Italian GUESSS samples.

8.4. Perceived Parents’ Performance in Entrepreneurship

Potential successors evaluated their parents’ business performances compared to their competitors along 5 dimensions on a 7-points Likert scale. These 5 items, combined together, describe Perceived Parents’ Performance in Entrepreneurship, which describes how children perceive the performance of their parents’ business (cf. Criaco et al., 2017). The job creation dimension received the lowest score, followed by innovativeness and market share growth.

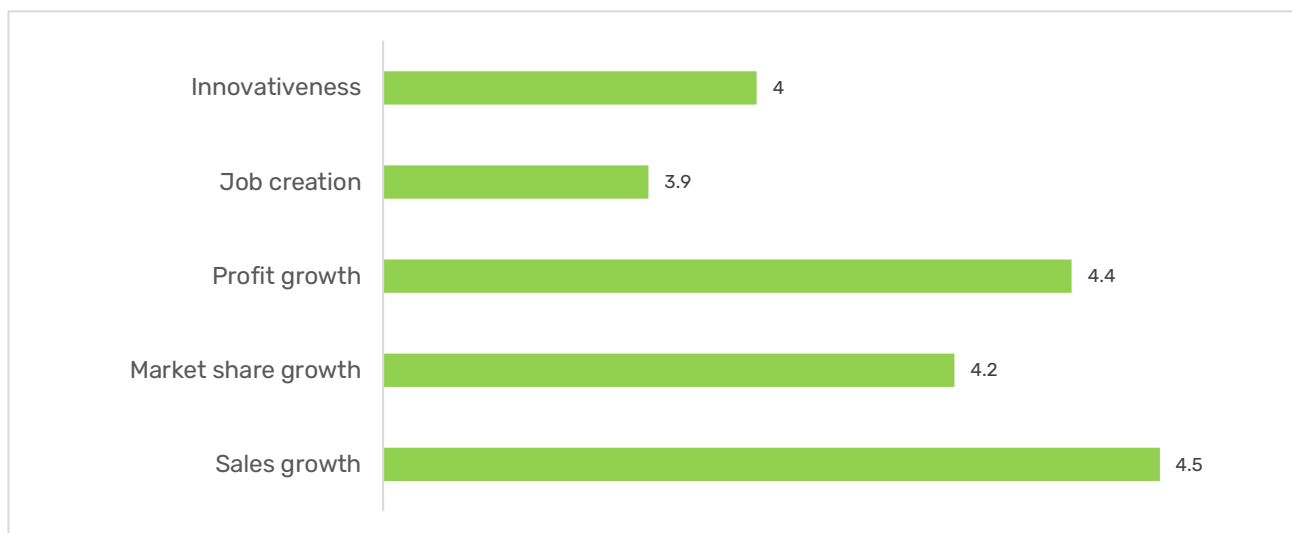


Figure 57. Students perceived entrepreneurial performance of parents’ business in the Italian GUESSS sample. (N =1,146)

It is possible to evaluate from the table below (Table 10) the fraction of active entrepreneurs with an enterprising family background who started a business in the same market as their parents. Almost a third of the (31.3%) created a venture in the same industry of their parents’ business (68.7%).

Businesses activities in the same market/industry	N	%
No	79	68.7%
Yes	36	31.3%
Total	115	100%

Table 10. Businesses activities of both parents and students in the same market/industry in the Italian GUESSS samples.

In Table 11 it is shown the proportion of parents that have some ownership stakes in the business of their children. More of than a third of them has some shares (63.4%).

Parents stake ownership in the student's business?	N	%
No	71	63.4%
Yes	41	36.6%
Total	112	100%

Table 11. Parents that stake ownership in the student business in the Italian GUESS samples.

In Table 12, it is possible to find the number of respondents who did business transactions between the business of parents and the one of their children. Almost one fourth of the active entrepreneurs engage in business transactions with their parents' business (26.5%).

Business transactions between the two businesses	N	%
No	83	73.5%
Yes	30	26.5%
Total	113	100%

Table 12. Business transactions between the parents and students' businesses in the Italian GUESS samples.

9. CONCLUSIONS

This report has resumed the main results of the Italian 2021 GUESSSS survey, which collected the responses of 3,294 students from more than 31 different universities.

The results shown in this report could be useful for scholars, educators and institutions interested in studying and promoting student entrepreneurship for several reasons. First, the report highlights the diffusion of entrepreneurial activities as well as the widespread interest towards entrepreneurship among Italian university students. Second, it offers several elements to describe the role played by family and Higher Education Institutions in fostering student entrepreneurship

Moreover, the comparisons of the results from the Italian 2021 GUESSSS wave with the previous ones and with the international sample offer further elements of discussion.

Concerning the first aspect, the report shows that students' interest to pursue an entrepreneurial career is quite diffused through an analysis of their career choice intentions both right after studies and 5 years after studies. While only 12.3% of the surveyed university students would like to undertake a career as a founder right after studies, 29.2% of the respondents would like to become a founder 5 years after studies. A possible explanation of such increase is that most students prefer to found their business after working as an employee. In fact, about one-fourth of the sample aims to become an employee in a large business (24.7%) right after studies. Moreover, the intentions to found a business 5 years after studies is quite diffused across field of studies: the interest towards an entrepreneurial career is diffused not only among Business and Economics students, but also among students from Natural and Applied Sciences and from Social Sciences. Besides showing a diffused interest towards an entrepreneurial career, respondents' career choice intentions suggest that only a small fraction of students would like to obtain wage-paid job in small and medium enterprises right after studies (respectively, 8.9% and 18.6% of the total sample). This result underlines the scarce intentions of students to work for SMEs and this scarce propensions seems to be still lower considering the career intentions 5 years after studies: the proportion of students preferring to work for a small or medium-sized business decrease to 3.3% and 9.7% respectively.

Besides documenting the diffusion of entrepreneurial career intentions among Italian university students, the report also shows that there is quite stable fraction of active and nascent entrepreneurs across GUESSSS waves. In particular, the percentage of students who are nascent entrepreneurs (16.1%) (i.e. who have planned to start a business soon or are about to do so) decreased very slightly compared to the 2018 sample (17.7%). The same thing

happened to the fraction of active entrepreneurs (6.9% in 2021) (i.e. who are currently running a business) in comparison to the 2018 results (7.2%). While the fraction of nascent and active entrepreneurs is tinier compared to the international sample, there are some findings suggesting that entrepreneurial initiatives undertaken by Italian university students are innovative and geared towards the exploitation of new business opportunities. For example, Italian nascent entrepreneurs report higher levels of entrepreneurial orientation, thereby indicating that they approach the founding process with a more proactive, risk-taking and innovative posture. Additionally, Italian active entrepreneurs feel that their venture is very innovative compared to competitors; and as founder they tend to consider very important achieving competitive advantage, addressing customers' needs and use their firm to make the world a better place.

Concerning the aspect related to students' background, the report highlights the role played by universities and families in supporting student entrepreneurship. Discussing first the university environment, the findings suggest that, even if the interest towards an entrepreneurial career is quite diffused among university students of all disciplinary areas, the entrepreneurship courses offered by universities are still rare, especially outside Business and Economics faculties. In fact, a huge fraction of the Italian sample has never attended an entrepreneurship course (more than 50%). For the Business and Economics field, a large percentage of students attended entrepreneurship courses (particularly as compulsory), while in other fields of study this kind of education is less widespread. These differences could be explained because entrepreneurship education is closer to the subjects taught in Business and Economics faculties. Such lower diffusion of entrepreneurship education outside the Business and Economics faculties are mirrored students' perception of a poor university entrepreneurial climate. Especially in the Natural and Applied Sciences and Social Sciences disciplinary areas, students perceive low support and encouragement for entrepreneurship by their institution. Not surprisingly, most of them never attended an entrepreneurial course. Due to the scarce diffusion of entrepreneurship education across all the fields of study, it does not surprise that respondents report some limited results also in terms of their entrepreneurial learning at university. In particular, Italian students' responses highlight scarce improvement of the practical skills and actions needed to start a business. The analysis suggests that entrepreneurship education needs to be diffused more broadly across campuses.

For what concerns the university students' family environment, the report highlights how university students' exposure to an enterprising family is related with their career choice intentions, in line with extant research (Hahn et al., 2021a) and with the family embeddedness perspective on entrepreneurship (Aldrich and Cliff, 2003; Aldrich et al., 2021). For example, students without an entrepreneurial family are more likely to prefer becoming employees both

right after studies and 5 years after studies; instead, students whose parents are self-employed or majority owners of a business are more likely to express the intention to found a business, especially 5 years after graduation. A possible explanation for the more widespread diffusion of entrepreneurial intentions among students with an enterprising family background is offered by Social Cognitive Career theory (Hahn et al., 2022), according to which individuals are more attracted by careers for which they feel more prepared. In fact, entrepreneurial self-efficacy for students with an enterprising family background is higher compared to their colleagues without parent entrepreneurs. Literature suggests that this might be due to the exposure to the parents' business which could generate some form of experiential or vicarious learning that contributes to raising students perceived entrepreneurial skills (Criaco et al., 2017). Besides generating interest towards founding a business, family enterprises play a central role in shaping university students' future careers also because the parents' business offers to children the possibility to undertake a succession process, through which the family business is passed to the younger generation (Hahn et al., 2021a). For this reason, a specific section of the report was dedicated to potential successors, those respondents whose parents are self-employed or majority owners of a business. Most of these students plan to become employees right after studies, but 5 years after studies the fraction of them that aims to succeed in their parents' firm or found their own business increases, reaching 5.3% and 33.4% respectively. This suggests that they would like to build up experience and develop some skills working as employees before becoming a founder or successor, as suggested by entrepreneurship career studies on the transition from employment to entrepreneurship (Elfenbein et al., 2010; Kacperczyk and Marx, 2016; Wennberg et al., 2011). Finally, the report highlights the relationship between the parents' business and the business of student entrepreneurs grown up in an enterprising family. The findings show that the family business often engages in business transaction with the offspring's business or that parents have some ownership stakes in their children firm. This further underlines the important role of enterprising family in shaping student entrepreneurship together with universities, in line with extant literature (Hahn et al., 2020).

Even though the analyses of this report are not based on a representative sample of the Italian population of university students, the sample size together with the articulated findings of the Italian GUESSS survey offer some important implications. First of all, educators and universities should pay more attention to the narrow diffusion of entrepreneurship education across fields of studies, which emerged from the report and which seem to lead to limited entrepreneurial learning and scarce perception of entrepreneurial climate, especially in Natural and Applied Science and Social Sciences fields of study. An initial remedy could be offering extracurricular activities open to students from different disciplines. For example, the Contamination Lab

initiative funded by the Italian Ministry of Education allowed several universities to organize extensive entrepreneurship programs involving students from different fields of studies (Cascavilla et al., 2022; Hahn et al., 2021b). Also summer schools together with business plan competition organized by universities could offer to students interested in entrepreneurship to improve their skills. A subsequent step could incorporate curricular entrepreneurship courses in different fields of studies, recognizing the importance of acquiring an entrepreneurial mindset for achieving success in the job market. Indeed, improving entrepreneurial learning and climate through targeted entrepreneurship education offerings is very important not only to enable students to found their business (indicated by several students as an attractive career path, according the results of the report), but more in general to equip graduates with entrepreneurial mindset for whatever career they aim to undertake (Lackéus, 2015). For this reason, Higher Education Institutions and policymakers increasingly acknowledge this broader role of entrepreneurship education, in line with the role of the Entrepreneurial University in our Entrepreneurial Society (Audretsch, 2014): not just undertake entrepreneurial activities, but enhance learning outcomes (Cascavilla et al., 2022) and form people endowed with entrepreneurial ways of thinking and behaving.

Another key implication relates to the role played by enterprising families in shaping university students' careers. The report shows that potential successors constitute a substantial share of the surveyed university students. Since some of these students are seriously interested to take over the parents' business, university could offer elective courses to prepare the next generation to succession, considering that family firms represent a key asset for the Italian economy.

Finally, since the report highlights a scarce diffusion of the intention to become employed in SMEs, especially 5 years after studies, universities together with SMEs should take initiative to guarantee to SMEs, the backbone of the Italian economy, a supply of talented graduates. For example, organizing internships and career days could create more awareness of the advantage of working for SMEs, such as learning to perform different tasks, autonomy and flexibility (Elfenbein et al., 2010).

Besides offering practical implications, the data presented in this report could inspire scholars to contribute to the understanding of the student entrepreneurship phenomenon or to advance entrepreneurship research more broadly. For example, GUESSS data are extremely valuable to conduct studies on nascent entrepreneurship, on entrepreneurship as a social embedded phenomenon using multi-level approaches with cross-country comparisons, as recently demonstrated by papers published in top entrepreneurship journals using GUESSS data (cf. for example Braun and Sieger, 2021 or Gimenez-Jimenez et al., 2021).

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