

GUESSS REPORT SWEDEN 2021

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Acknowledgements

The authors thank Jobbsprånget and the Royal Swedish Academy of Engineering Sciences for supporting the preparation of the Sweden National Report and EY as the global project partner for the data collection. Our gratitude goes to all the students who participated in the survey.

Citation

Ali, A.M., Baù M., (2021). *Global Student Entrepreneurship 2021: Sweden National Report*. Centre for Family Entrepreneurship and Ownership (CeFEO), Jönköping International Business School.

Preface

Given the significance of entrepreneurship for a thriving economy, gaining new insights into student entrepreneurship is more important than ever. Mapping students' entrepreneurial intentions and behaviour are vital for policy-makers, academics, and educators.

The Global University Entrepreneurial Spirit Students' Survey (GUESSS) is an international research project supported by EY as the global project partner that investigates and compares entrepreneurial attitudes and activities of students in 58 countries in the world. In its 9th edition, GUESSS surveyed 267,000 university students, the primary source of information on student entrepreneurship worldwide¹.

This report presents the result of the data collection conducted in Sweden. The sample consists of 382 students enrolled at Jönköping University in the Spring of 2021. The report is prepared by the country delegate of the GUESSS project for Sweden, the Centre for Family Entrepreneurship and Ownership (CeFEO) at Jönköping International Business School (JIBS).

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¹ The GUESSS Global Report is available online.

ref. https://www.guesssurvey.org/resources/PDF_InterReports/GUESSS_2021_Global_Report.pdf

Executive summary

The 9th edition of the GUESSS Survey (2021 edition) surveyed 267,000 students in 58 countries. The following sections provide insights and results regarding the Swedish sample.

1.1. Sample profile

- The Swedish sample consists of 382 students attending courses at Jönköping University.
- The average age of the students surveyed in this report is 26.3 years.
- The share of male to female respondents is a little imbalanced as females represent 62.1% of the sample, whereas males are 36.6%, and 1.3% of the sample identify themselves as "other".
- 71.7% of the respondents are Swedish, and 28.3% are non-Swedish.
- The main fields of study are Business/Management and Economics (34%), Art and Social sciences (26%), Computer Sciences and Engineering (23%), and Human medicine and health sciences (17%).
- 64.9% of the students are at the Bachelor's level, and 24.3% are at master's

1.2. Regarding students' entrepreneurial activities

- In line with the pattern detected in previous GUESSS reports: "first employee, then entrepreneur", we see that 4.2% of the students aspire to be entrepreneurs directly after studies and 24.6% of the students, five years after studies.
- 13.6% of the students are in the process of founding their businesses (nascent entrepreneurs).
- 3.9% of the students already own and run their businesses (active entrepreneurs).
- Females represent 55.8% of the nascent entrepreneurs and 55.3% active entrepreneurs.
- Males represent 44.2% of the nascent entrepreneurs and 46.7% active entrepreneurs.
- Students of Business and management and Engineering exhibit the highest entrepreneurial spirit.

1.3. University context

- 5.8% of the students are studying in a specific program on entrepreneurship and 36.2% have attended at least one course on entrepreneurship as a compulsory course, moreover 6.8% have attended at least one elective course on entrepreneurship.
- The highest participation in entrepreneurial courses is amongst students of Economics, Business and Management, and Computer Sciences and IT.

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1. Description of the sample

1.1. Age

The average age of the students surveyed in this report is 26.3 years old. As depicted in Figure 1, 79.9% of the respondents are between 20-29 years old, while only 0.8% are under 20 years old. 13.65% of the sample age from 30-39 years old, whereas 3.3% are 40-49 years old, and 2.2% are over 50 years old.





1.2. Gender

The females represent 62.1% of the total sample, whereas males are 36.6%, and 1.3% of the model identify themselves as "Others". Figure 2 shows the gender of the students surveyed in this report.

Figure 2: The gender across the sample (Valid responses N=382)



1.3. Nationality

As shown in Figure 3, most of the students are Swedish resembling 71.7%, while 28.3% are non-Swedish students currently enrolled in university programs in Sweden.



Figure 3: The Nationality of the respondents (Valid responses N=283)

1.4. Field of study

Figure 4 presents the fields of study of the students in the sample. As shown below, 29.1% of the students are studying Business and Management. Students studying social sciences resemble 22.3% of the sample, followed by engineering students 17% and human medicine/health sciences students 16.8%.



Figure 4: The field of study (Valid responses N=382)

1.5. Education level

Figure 5 shows students' level of education across the sample. The undergraduate students represent 64.9% of the sample. Graduate students are 24.3% of the sample. Finally, 1% of the students are conducting PhD studies, while 9.7% are in other levels of education.



Figure 5: The level of education for respondents (Valid N=382)

1.6. Family background

Literature has shown the pivotal role played by the family background in explaining individuals' entrepreneurial behaviour (Aldrich & Cliff, 2003; Hahn et al., 2021; Sieger & Minola, 2017). For instance, having entrepreneurial parents increases the children's likelihood to be entrepreneurs by about 60% (Lindquist et al., 2015). Parent-to-child socialisation shapes children's personality, values and (Lilienfeld et al., 2011). Observational learning also has a critical role in (Boyd & Vozikis, 1994). Students were asked to indicate if any of their parents, or both of them, are self-employed or owners of a business. As figure 6 shows, most students indicated that their parents are neither self-employed nor owners, positioning at 66%. At the same time, 19% of the students noted that their fathers are self-employed or owners and 11% indicated that both of their parents are self-employed or owners.





Figure 6: Parents' self-employment status (Valid responses N=382)

2. University climate

Given the mounting evidence of the importance of university's context as a determinant of academic entrepreneurship (Bergmann et al., 2016), it is of great significance to examine universities atmosphere. The importance of the university's atmosphere stems from the fact that entrepreneurship at large, and the academic one, in particular, does not occur in a social or spatial vacuum (Autio et al., 2014). Still, instead, they are context-dependent (Bercovitz & Feldman, 2008). What's more, students usually lack the requisite experience to start their own business, which intensifies the importance of the university's context (Bergmann et al., 2016). Therefore, universities enhance students' motivation and faculties for starting a business field by providing a supportive context for the entrepreneurship field (Walter et al., 2013).

This section presents how the participants perceived the climate in their respective universities. The scales developed by Franke and Lüthje (2004) and Geißler (2013) allow mapping the students' perception of university climate to support and encourage encouraging support and encouraging entrepreneurship. Using a seven-point Likert scale, students were asked to indicate to what degree they agreed with statements related to university climate, where I=not at all, and 7=very much. The average score for each information suggests that students' perception of the university's atmosphere was relatively positive since the average scores were 4.0 and above. Figure 7 delineates the average score for each statement.



Figure 7: University's atmosphere (Valid responses N= 67, 67 & 67)

2.1. University climate per gender

As figure 8 visualises, male students' perception of university climate is slightly higher than female students. The male students' average scores are above 4.10, while the female students' average scores are below 4.10.





2.2. University climate across the fields of study

Figure 9 shows students' perception of university climate across the fields of study. Notably, human medicine/health sciences and social sciences students hold a relatively negative perception of the university's environment since their average scores fall below 4.0 to all statements. Students studying business/management, engineering, and computer science/IT have a relatively positive perception of the university atmosphere. Their average scores for all accounts are above 4.0, reaching as high as 5.32.



• At my university, students are encouraged to engage in entrepreneurial activities

Figure 9: University atmosphere across fields of study (Valid responses N=381, 381 & 379)

3. Equality atmosphere

Following the United Nations' sustainable development goals, the students were requested to express to what degree they agreed with the following statements, where I=not at all, and 7=very much. As Figure IO shows, the respondents have a high positive perception of equality, whether regarding the access to affordable and quality education, participation, representation, and acquiring the needed knowledge and skills for sustainable development, as the average score for each is above 5.30.



Figure 10: Equality atmosphere. My university ensures all students (irrespective of gender, age, ethnicity, religion, disability, or socio-economic status). (Valid responses N=380, 377 & 377)

3.1. Equality atmosphere per gender

As figure 11 visualises, the male student's perception of equality atmosphere is relatively higher than that of the female students. While the male students' average scores ranged between 5.53 and 6.05, the female students' average scores ranged between 5.21 and 5.69.



Figure 11: Equality atmosphere per gender. My university ensures that all students (irrespective of gender, age, ethnicity, religion, disability, or socio-economic status)... (Valid responses N=380, 377 & 377)

3.2. Equality atmosphere across fields of study

When examining students' perception of equality atmosphere across different fields of study, it is apparent that all the average scores are relatively high, ranging from 4.89 to 5.98, suggesting that students, regardless of their discipline, hold a relatively favourable perception of the equality atmosphere in their respective universities. Figure 12 shows the average score for pertinent statements across the different fields of study.



• My university ensures that all students have equal access to affordable and quality education.

- My university ensures that all students have equal participation, representation, and voice in the university's decisionmaking.
- My university ensures that all students acquire the knowledge and skills needed to promote sustainable development.

Figure 12: Equality atmosphere across fields of study. My university ensures that all students (irrespective of gender, age, ethnicity, religion, disability, or socio-economic status)... (Valid responses N=380, 377 & 377)

4. Entrepreneurship Education

Regarding students' participation in entrepreneurship courses, figure 13 shows that 51.2% of the respondents have not attended a class on entrepreneurship. While 36.2% of the respondents have attended at least one compulsory entrepreneurship course as part of their studies, only 6.8% have attended at least one elective entrepreneurship course.



Figure 13: Participations in entrepreneurship courses (Valid responses N=365)

Figure 14 shows that 8.4% of the respondents choose to study at their respective universities essentially because of their solid entrepreneurial reputation. This is in line with the studies that suggested that students at European universities are unlikely to choose universities based on entrepreneurial reputation because they consider other more critical factors (Bergmann et al., 2016).





Figure 14: Choosing university based on its entrepreneurial reputation (Valid responses N=382)

4.1. Entrepreneurship education per gender

Focusing on the gender of the respondents, figures 15 and 16 show the participation of female and male students in entrepreneurship courses. 58.8% of female students have not attended a course class on entrepreneurship, compared with 38.8% of male students who have not participated in entrepreneurship studies. While 37.1% of female students have attended at least one elective or compulsory entrepreneurship course, 53% of male students have attended such courses. As for those who identified themselves as "others", they represented 1.4% of total respondents. 40% of which have not participated in a course on entrepreneurship, while 40% have attended at least one compulsory course on entrepreneurship, 20% are studying in a specific program on entrepreneurship.

Females' participation in entrepreneurship courses



Figure 15: Females' participation in entrepreneurship courses (Valid responses N=226)



Males' participation in entrepreneurship courses

- I have attended at least one entrepreneurship course as compulsory part of my studies
- I have attended at least one entrepreneurship course as elective
- I have not attended a course on entrepreneurship so far

Figure 16: Males' participation in entrepreneurship courses (Valid responses N=134)

4.2. Entrepreneurship education per field of study

This section will present the participation in entrepreneurship courses across the fields of study. As figure 17 shows, 13% of business students and 10% of economics students are studying a specific program on entrepreneurship. The highest percentages of those who attended at least one compulsory course on entrepreneurship are of those who are studying computer sciences/IT (78.3%), economics (75%) and business/management (63%). 14% of business/management students and 10% of economics students have attended at least one course on entrepreneurship as an elective course. Those studying art/humanities have not participated in any entrepreneurship courses.



Figure 17: Participation in entrepreneurship courses across fields of study (Valid responses N=365)

5. Support entrepreneurship

To assess the extent to which universities support ancillary activities to support entrepreneurship, we used a scale developed from the United Nations' sustainable development goals. Using a seven-point Likert scale, students were asked to indicate to what degree they agreed with the following statements, where I=not at all, and 7=very much. As presented in Figure 18, respondents seem to have a relatively positive perception of universities' support regarding different aspects such as the development of research, collaboration with local authorities, green practices, etc.



Figure 18: Universities support entrepreneurship activities (Valid responses N=376, 374 & 375)

5.1. Support entrepreneurship per gender

Figure 19 depicts the average scores concerning ancillary activities supporting entrepreneurship per gender. Male students have a relatively more positive perception of universities' support of entrepreneurship than female students.



Figure 19: Universities support of entrepreneurship activities per gender (Valid responses N=376, 374 & 375)

5.2. Support entrepreneurship across fields of study

Figure 20 depicts the average scores concerning the university's support of ancillary activities supporting entrepreneurship across the fields of study. Across all fields of study, respondents hold a relatively positive perception of the university's support of entrepreneurship-related activities since the average scores range from 4.25 to 5.55.



- My university enhances, facilitates, and support the development of research, technology, innovation, and entrepreneurship.
- My university enhances, facilitates, and supports the collaboration with local authorities / firms to provide employment for all students.
- My university enhances, facilitates, and supports the development of sustainable and green practices to mitigate climate change.

Figure 20: Universities support of entrepreneurship activities across the field of study (Valid responses N=376, 374 & 375)

6. Program Learning

The effect of entrepreneurship courses on students' entrepreneurial intentions and activities has gained significant attention by researchers (Aronsson, 2004). While the literature offers conflicting results (Minniti, 2009), most studies have found a positive correlation between entrepreneurial education and the entrepreneurial skills (Hahn et al., 2020). The impact of entrepreneurial courses is not limited to those who receive them by providing them with the requisite knowledge. Still, it arguably affects other fellow students who do not participate in such courses through peers' influences and the perceived positive entrepreneurial climate (Bergmann et al., 2016; Geissler et al., 2010).

With that in mind, this section describes the perceived entrepreneurial learning outcomes of the courses provided to the respondents. The entrepreneurial learning outcomes of the courses offered to students were measured using the scale developed by Souitaris et al. (2007). Using a seven-point Likert scale, students were asked to indicate to what degree they agreed with the following statements, where I=not at all, and 7=very much. As illustrated in Figure 2I, courses and offerings provided by universities receive low average scores overall. In other words, the system's contribution in enhancing students' ability to identify an opportunity received the highest valuation (average score 4.06) compared to the different outcomes (average score below 4.0).



Figure 21: Effect of university offering on entrepreneurial learning outcomes (Valid responses N=381, 378, 377, 379 & 378)

6.1. Program learning per gender

Figure 22 shows that male students' evaluation of the outcomes of universities outcomes is noticeably higher than that of their female counterparts. While male students' average scores ranged between 3.76 and 4.28, female students' average scores ranged between 3.14 and 3.91.



Figure 22: Effect of university offering on entrepreneurial learning outcomes per gender (Valid responses N=381, 378, 377, 379 & 378)

6.2. Program learning per the fields of study

Figure 23 presents students' appraisal of the university's offering broken down by the fields of study. Students studying art/humanities, human medicine/health science and social sciences have a low perception since their average scores go from 3.55 to as low as 2.0. On the other hand, students studying business/management, computer science/IT, economics and science of art hold a higher perception as their average scores ranged from 4.05, reaching as high as 5.05.



 The courses and offerings I attended increased my understanding of the attitudes, values, and motivations of entrepreneurs

• The courses and offerings I attended increased my understanding of the actions someone has to take to start a business

- The courses and offerings I attended enhanced my practical management skills to start a business
- The courses and offerings I attended enhanced my ability to develop networks

Figure 23: evaluation of university offering on entrepreneurial learning outcomes across fields of study (Valid responses N=387, 384, 383, 385 & 383.

7. Career Aspirations

This section reports the respondents' intentions regarding their career aspiration in both the short term (i.e. right after studies) and the medium-long term (i.e. five years after studies). The students were given ten different career paths to choose from. The responses are presented in Figure 24.



Figure 24: Career aspiration short term vs medium-long term (Valid responses N=382)

To better illustrate what these responses signify, we summarise the careers options from which respondents chose into four groups: 1) employment (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 organisation, employed in academia/academic career, and employee in the public administration), 2) entrepreneur (i.e., founder); 3) successor (i.e., succeed in parents' firm or another business); and 4) other / do not know yet.

Focusing on these four categories, most students indicated the desire to start working as employees in the short term, positioning at 81.7% for the period right after the studies. However, this figure decreases to 56.5% as a medium-long term aspiration (i.e. five years after studies). While only 4.2% of the students aspired to establish their own business immediately after their studies, this percentage increases to 24.6% when looking at their aspirations five years after their studies. Finally, 6.5% of the students in

the sample will succeed in their parents' firm or another business right after the studies, and 2.4% in the following five years. Figures 25 and 26 visualise these statistics.





Figure 26: Career aspiration 5 five years after studies

Valid responses (N=382)

7.1. Career aspiration across genders

Figures 27 and 28 show students' career aspirations in the short and medium-long terms broken down by gender. The majority of the female students indicated the desire to start working as employees, reaching 83.5% right after the studies. However, the percentage drops to 56.5% for the medium-long term (i.e. five years after studies). Similarly, 80% of the male students indicated the desire to start working as employees for a short time (i.e. right after studies). This percentage decreases to 56.4% as a medium-long term aspiration. Furthermore, while only 3.4% of the female students aspired to establish their own business directly after their studies, this percentage increases to 23.2% in the case of the medium-long term career aspiration. On the other hand, 4.3% of the male students aspired to establish their own business directly after their studies, while 27.9% aspireddesired to develop their own business five years later.

Additionally, 0.84% of the female students will succeed in their parents' firm or another firm right after studies, while 2.5% will succeed in their parents' firm or other firms in the medium-long term. While 1.4% of the male students will succeed in their parents' firm or other firms right after their studies, 2.1% will succeed in their parents' firm or other firms in the medium-long term. Finally, those who identified themselves as "other" showed no aspiration to start their own business neither right after studies nor five years after analyses. However, 60% of them will succeed in their parents' firm or other firms right after their studies, while 40% will succeed in their parents' firm or other firms in the medium-long term.



Figure 27: Career aspiration right after studies across genders (Valid responses N=382)



Figure 28: Career aspiration five years after studies across genders (Valid responses N=382)

7.2. Career aspiration across the field of study

Across all disciplines, most students indicated the desire to start working as employees right after their studies ranging between 78.4% to as high as 84.6%. The highest percentage of those who aspired to start their own business directly after their studies is that of the students who are studying business/management, positioning at 7.2%, followed by computer science/IT students (4.2%), and human medicine students (3.1%), while only 1.5% of those who are studying engineering aspired to start their own business in the short term. Finally, the students who will succeed in their parents' firm or other firms are 1.8% of business students, 5% of economics students, and 1.5% of engineering students. Figure 29 visualises the statistics above.



Figure 29: Career aspiration right after studies per field of study (Valid responses N=382)

Figure 30 presents the statistics of the students' career aspirations five years after their studies per field of study. Except for the business and management students, the majority of most students across all studies indicated the desire to start working as employees in the medium-long term, ranging between

50% to 65%. Additionally, the highest percentages of the students who aspired to start their own business in the medium-long time are 39.6% of business and management students, 29.2% of computer science students, 24.6% of engineering students and 21.2% of social sciences. The students who will succeed in their parents' firm or other firms are 10% of economics students, 4.6% of engineering students, 2.7% of business students, and 1.6% of human medicine students.



Figure 30: Career aspiration five years after studies per field of study (Valid responses N=382)

8. Entrepreneurial self-efficacy

Entrepreneurial self-efficacy, defined as the strength of individual's belief in their capability to perform entrepreneurial roles and tasks successfully, plays a central role in one's decision to choose an individual's confidence in their capability ability to perform entrepreneurial functions and functions successfully, plays a significant role in determining an entrepreneurial career path (Chen et al., 1998; Neneh, 2020). The self-efficacy perspective, which is grounded in the social cognitive theory of Bandura (1997), postulates that people determine what goal to pursue based on their evaluation of their capability to achieve the goals (Boyd & Vozikis, 1994). Based on said theory and the theory of planned behavior, entrepreneurial self-efficacy is considered a vital contributor to the entrepreneurial intentions (Ajzen, 1991; Nowiński et al., 2019).

That being said, this section is dedicated to presentpresenting the respondents' entrepreneurial selfefficacy. To measure students' entrepreneurial self-efficacy, a scale was developed from the scales used by Chen et al. (1998) and Zhao et al (2005). Using a seven-point Likert scale, students were asked to indicate their level of competence in performing specific tasks, where 1=very low competence and 7=very high competence. Figure 31 shows that students' average score was relatively high (4.58) about being a leader and communicator, but the average scores for the rest of the tasks were below 4.0.



Figure 31: Entrepreneurial self-efficacy. What is your level of competence in performing these tasks? (Valid responses N=318, 318, 317, 317, 318, 318 & 316)

8.1. Entrepreneurial self-efficacy per the fields of study

Figure 32 illustrates students' entrepreneurial self-efficacy broken down by the fields of study. Business and economics students showed an overall high entrepreneurial self-efficacy as their average score, reaching as high as 5.51. Students f art, computer sciences, human medicine and social scienceneral low entrepreneurial self-efficacy since most of their average scores fell below 4.0.



Figure 32: Entrepreneurial self-efficacy across fields of study. What is your level of competence in performing these tasks? (Valid responses N=318, 318, 317, 317, 318, 318, 316)

9. Locus of control

Locus of control refers to whether an individual perceives the outcomes as contingent on their behaviour or independent of its (Singer & Singer, 1986; Spector, 1988). According to said theory, first proposed by (Rotter, 1966), an individual is either "internal" or "external", where the former is convinced that events are subjects to their control, while the latter believes that results are attributable to things beyond their control and may occur independently of their action (e.g. fate, chance, luck, or destiny) (Hambrick & Finkelstein, 1987; Rotter, 1990). Previous research found a positive relationship between locus of control and the decision to start a new business (i.e. entrepreneurship), as there is evidence to suggest that an internal locus of power leads to the creation of more new firms (Bonnett & Furnham, 1991; Durand & Shea, 1974; Minniti, 2009).

With that in mind, this section presents students' locus of control. The scale developed by Levenson (1973) was used to measure students' locus of control. Using a seven-point Likert scale, students were asked to express to what extent they agreed with the following statements, where 1=not at all, and 7=very much. As presented in figure 33, students showed an overall high internal locus of control as their average scores were 4.15, 4.91 and 5.07.



Figure 33: Locus of control (Valid responses N=320, 319 & 319)

9.1. Locus of control per the fields of study

Figure 34 illustrates students' locus of control broken down by the fields of study. While the average scores were generally over 4.0, the highest average scores were for the students studying business, computer sciences and engineering. Students studying art, human medicine and social sciences scored relatively lower average scores than the rest of the students of other fields of study.



Figure 34: Locus of control across the field of study (Valid responses N=320, 319 & 319)

10. Students' willingness to take risks

Students' willingness to take risks is measured using the scale developed by Gomez-Mejia and Balkin (1989). Using a seven-point Likert scale, students were asked to indicate to what degree they agreed with statements related to risk-taking, where 1=not at all, and 7=very much. As shown in figure 35, students are willing to take risks when choosing a job or a company to work for. Furthermore, the third statement received an average score of 3.45, meaning that students, on average, disagreed with the view of risk on a job as something to be avoided at all costs. However, it appears that students, on average, prefer a low risk with the high-secure jobs job, scoring an average score of 4.40 to the related statement (the second statement).



Figure 35: Willingness to take risks (Valid responses N=381, 379 & 379)

10.1. Willingness to take risks across the fields of study

This section describes the willingness to take risk risks broken down by the fields of study. Students studying economics and business/management are more willing to take risks when choosing their prospective job, reaching average scores of 5.35 and 5.08, respectively, for the related statement (the first statement). What's more, students in business/management and economics are, on average, more in favour of a job that offers high risks and high rewards, since their average score to the pertinent statement (the second statement) is relatively low; 3.86 and 3.95 respectively. Figure 36 shows the average score for each statement across the fields of study.



• I am willing to take risks when choosing a job or a company to work for.

• I prefer a low risk/high security job over a job that offers high risks and high rewards.

• I view risk on a job as a situation to be avoided at all costs.

Figure 36: Willingness to take risks per field of study (Valid responses N=381, 379 & 379)

11. Subjective norms

According to the theory of planned behavior, subjective norms are an antecedent of one's entrepreneurial intentions that refers to the perceived social pressure to perform a behavior (Ajzen, 1991; Autio et al., 2001). In this section, we report the respondents' subjective norms.

To measure the degree of support the students receive when they decide on a career as an entrepreneur, the scale developed by Liñán and Chen (2009) was used. Using a seven-point Likert scale, nascent and active entrepreneurs students were asked to assess how people in their environment would react if they pursued a career as an entrepreneur, where I= very negatively, and 7=very positively. As depicted in figure 37, students anticipated receiving a relatively high positive reaction from their close family, friends and fellow students, as the average scores were 5.68, 5.83 and 5.56, respectively.



Figure 37: Subjective norms. If you would pursue a career as an entrepreneur, how would people in your environment react? (Valid responses N=378, 375 & 376)

11.1. Subjective norms per the field of study

Figure 38 shows how the subjective norms were perceived across the different fields of study. Overall, students studying art/humanities expected relatively low support from their environment compared with the rest of the disciplines. Students studying business, economics and engineering showed that they expected relatively high support from their environment, with average scores ranging from 5.75 to as high as 6.40.



Figure 38: Subjective norms per field of study. If you would pursue a career as an entrepreneur, how would people in your environment react? (Valid responses N=378, 375 & 376)

12. Subjective well-being

Since psychological well-being is central to effective human functioning, it is no surprise that entrepreneurs' well-being has gained growing attention due to its positive impact on a range of aspects, such as one's productivity, one's and firms' performance and feeling successful (Lyubomirsky et al., 2005; Stephan, 2018; Wach et al., 2021; Wiklund et al., 2019). Therefore, the survey aimed to measure students' subjective well-being —that is, cognitive and affective evaluation of one's quality of life (Ponomareva et al., 2020)—which is what this section will describe.

The scale developed byField Diener et al. (1985) was used to assess students' subjective well-being. Using a seven-point Likert scale, students were asked to indicate the degree to which they agreed with five items. As shown in figure 39, while the average scores were above 4.30, students' satisfaction with their lives is higher than the other aspects included in the scale, registering an average score of 5.01.



Figure 39: Students' subjective well-being. (Valid responses N= 378, 377, 377, 377 & 377)

12.1. Subjective well-being per field of study

Figure 40 depicts respondents' subjective well-being across the fields of study. Students of Business and Management, Social sciences and Engineering indicate a relatively higher perception of their emotional well-being as their average scores ranged from 4.29 to as high as 5.18.



Figure 40: Students' subjective well-being per field of study. (Valid responses N= 378, 377, 377, 377 & 377)

13. Founding a Business

13.1. Intentions toward Founding a Business

Entrepreneurial intention refers to one's inclination or determination towards starting a new business venture, making it the first step in the venture creation (Anwar et al., 2020; Liñán & Chen, 2009). On the other hand, the theory of planned behavior suggests that one's intentions have three independent antecedents; the attitude towards the behavior, subjective norms, and the degree of perceived behavioural control (Ajzen, 1991; Autio et al., 2001).

Accordingly, the survey aimed to measure the respondents' intentions towards founding a business and their antecedents, which we report in the following sections. To measure calculate the students' entrepreneurial intentions, the scale developed by Liñán and Chen (2009) was used. Using a seven-point Likert scale, students were asked to express to what extent they agreed with statements related to entrepreneurial intentions, where I=not at all, and 7=very much. As presented in figure 4I, students showed low entrepreneurial intentions as their average scores for all the statements fell well below 4.0 to as low as 2.79.



Figure 41: Entrepreneurial Intentions (Valid responses N=321, 322, 321, 320, 319 & 319)

13.2. Attitude towards founding a business

According to the theory of planned behavior, the attitude towards founding a business— that is, the degree to which a person has a favourable appraisal of the behavior— is one of the independent antecedents of one's intentions (Ajzen, 1991; Autio et al., 2001). This section describes the respondents' attitude towards founding a business.

Students' attitude towards founding a business was measured using the scale developed by Liñán and Chen (2009). Using a seven-point Likert scale, students were asked to express to what extent they agreed with the following statements, where I=not at all, and 7=very much. As shown in figure 42, the average scores are lower than 4.0 for all the statements, reflecting an overall lower attitude towards founding a business.



Figure 42: Attitudes towards founding business (Valid responses N=320, 319, 318, 318 & 319)

14. Nascent & active entrepreneurship

We define nascent entrepreneur students as actively trying to start their own business or become selfemployed (Carter et al., 2003). To identify potential nascent entrepreneurs, students were asked: "Are you currently trying to start your own business / to become self-employed?" Students who are currently running their own business are defined as active entrepreneurs and are identified by asking the question: "Are you already running your own business/are you already self-employed?" As presented in figures 43 and 44, the nascent entrepreneur students represent 13.4% of the total sample, while Active entrepreneurs are 3.9% of the full sample.



Figure 43: Nascent entrepreneur



14.1. Nascent & active entrepreneurs per gender

From a gender perspective, figures 45 and 46 show that the male nascent entrepreneurs represent 44.2% of all nascent entrepreneurs, while their female counterparts represent 55.8%. On the other hand, the male active entrepreneurs represent 46.7% of all active entrepreneurs, while the female entrepreneurs represent 53.3%. Finally, those who identified themselves as "others" are neither nascent nor dynamic entrepreneurs.



14.2. Nascent entrepreneurs in the short and medium-long term

In this section, we describe the career aspiration for the nascent entrepreneurs in a short time (i.e. right after studies) and in the medium-long time (i.e. five years after studies). Such is visualised in figures 47 and 48. The majority of the nascent entrepreneurs indicated the desire to start working as employees right after studies, positioning at 78.8%. However, this figure drops to 21.2% as a career aspiration for the medium-long term. Furthermore, 13.5% of the nascent entrepreneurs aspired to establish their businesses after their studies. This figure rises to 69.2% as a career aspiration in the medium-long term. Finally, while 1.9% of the nascent entrepreneurs will succeed in their parents' firm or other firms right after their studies, no nascent students will succeed in their parents' firm or other firms five years after their studies.







Career aspiration of nascent entrepreneur 5 years after studies

Figure 48: Nascent entrepreneur five years after studies (Valid responses N=52)

Figure 47: Nascent entrepreneur right after studies (Valid responses N=52)

14.3. Active entrepreneurs in the short and medium-long term

In this section, we describe the career aspiration for active entrepreneurs in the short term (i.e. right after studies) and in the medium-long time (i.e. five years after studies). Such is depicted in figures 49 and 50. The majority of the active entrepreneurs indicated the desire to start working as employees right after studies, amounting to 66.7%. This percentage decreases to 33.3% as a career aspiration in the medium-long term. While 20% of the active entrepreneurs aspired to establish their own business right after their studies, the percentage increases to 60% as a career aspiration in the medium-long term. Finally, 6.7% of the active entrepreneurs will succeed in their parents' firm or other firms directly after their studies, while no busy entrepreneurs will follow in the medium-long term.



Career aspiration of active entrepreneur in the short term

Figure 49: Active entrepreneur right after studies (Valid responses N=15)



Career aspiration of active entrepreneur 5 years after studies

Stated differently, despite having their own business, some active entrepreneurs showed the desire to work as employees, which could be explained by considering the "hybrid entrepreneurship" path described earlier. Additionally, some active entrepreneurs indicated that they would succeed in their parents' firm or another firm (only in the short term), while others aspired to start their own business.

Figure 50: Active entrepreneur right five years after studies (Valid responses N=15)

A possible explanation for that is that those active entrepreneurs aspire to what is called in the literature "serial entrepreneurship". According to such a phenomenon, a serial entrepreneur opens business after another (Lafontaine & Shaw, 2016). Serial entrepreneurs are thought to be more successful than first-time entrepreneurs because " early entrepreneurship is a learning experience that imparts skills that are valuable in subsequent businesses" (Lafontaine & Shaw, 2016, p. 221).

14.4. Nascent entrepreneurs per the field of study

This section breaks down the nascent entrepreneur students by the fields of study. There are no budding entrepreneurs amongst those who are studying art and humanities. Furthermore, the majority of the nascent entrepreneur students are studying Business/management, positioning at 58% of all nascent entrepreneurs. The nascent entrepreneur students studying engineering, human medicine/health science and social sciences represent 13%, 12% and 13%, respectively. Figure 51 shows the nascent entrepreneurs per the field of study.



Figure 51: Nascent entrepreneurs per the field of study (Valid responses N=52)

14.5. Active entrepreneurs per the field of study

This section breaks down the active entrepreneur students by the field of studies. As shown in figure 52, students studying business/management represent the majority of the active entrepreneurs, resembling 46.7%. Those studying engineering and social sciences represent 20% and 20% respectively of all of the active entrepreneurs. Students of art/humanities and computer science/IT resemble 13.4% of all active entrepreneurs.

Active entrepreneur per field of study



Figure 52: Active entrepreneurs per the field of study (Valid responses N=52)

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GUESSS Project

GUESSS (Global University Entrepreneurial Spirit Students' Survey) was founded at the Swiss Institute of Small Business and Entrepreneurship (KMU-HSG) in 2003.

Since 2016, GUESSS has been jointly organised by the University of St.Gallen (KMU-HSG) and the University of Bern (Switzerland, IMU-U). The GUESSS CEO is Prof. Dr. Philipp Sieger (University of Bern). The supervisory board consists of Prof. Urs Fueglistaller, Prof. Thomas Zellweger, Prof. Isabella Hatak (all University of St.Gallen), and Prof. Norris Krueger.

GUESSS is one of the most significant entrepreneurship research projects in the world. With every data collection wave, GUESSS has grown and has become more globally.

The GUESSS core team develops a comprehensive online survey for every data collection wave that meets the highest academic standards. The link to the study is then sent out to the country delegates who forward the survey invitation to their students and the national university partners (who then deliver it to their respective students).

GUESSS data have been used for numerous studies, reports, practitioner-oriented articles, and academic publications (e.g., in renowned journals such as RP, JBV, ETP, and SEJ).

For more information and regular updates about GUESSS, please visit <u>www.guesssurvey.org</u>.

Centre for Family Entrepreneurship and Ownership

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