



Student Entrepreneurship 2021: Insights From Bulgaria

2021 GUESSS National Report - Bulgaria

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Acknowledgments

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This project is supported by our national partner *The Superhuman Podcast with Georgi Nenov*; one of the most listen Bulgarian podcast with more than 260 episodes reaching over 25 000 Bulgarians and Bulgarian speaking people around the world spreading Bulgarian successful and inspiring entrepreneurial stories and other foreign actors’ involvements within the Bulgarian entrepreneurial ecosystem. The podcast founder and serial entrepreneur Georgi Nenov met 20 students-respondents, winners at the national lottery, to talk and mentor them on their way from entrepreneurial idea to business model creation.



We acknowledge the contribution of our national university partners for distributing survey information and questionnaire link to their students and other education partner institutions in the country in an effort to include as many universities as possible and to collate so many students’ responses from a broad range of fields and areas of study. For this first participation of our country in the GUESSS Project we have five main national partner universities, namely: *Sofia University “St. Kliment Ohridski”*, *University of National and World Economy*, *University of Ruse “Angel Kanchev”*, *Plovdiv University “Paisii Hilendarski”* and *D. A. Tsenov Academy of Economics in Svishtov*. We are grateful for the particularly fruitful cooperation with the Faculty of Economy and Business administration of Sofia University, the Institute of Entrepreneurship of UNWE, and the Faculty of Business and Management of University of Ruse. We are particularly grateful to our colleagues for the excellent partnership: Assoc. Prof. Kristian Hadjiev (NBU), Prof. Todor Yalamov (SU), Prof. Daniel Pavlov (UR), Prof. Kostadin Kolarov (UNWE), Assoc. Prof. Daniela Pastarmadziewa (PU), Assist. Prof. Silvia Zarkova (AES), Prof. Diana Kopeva (UNWE), Prof. Galia Kurteva (BFU), and Prof. Hristo Sirashki (AES).

We congratulate *all the students-respondents* in this (first for our country) survey of Bulgarian students’ entrepreneurial spirit and activities wishing them all the courage, passion, determination, tenacity, constancy and good luck needed for their entrepreneurial initiatives to succeed.

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1 Introduction

1.1 Purpose of the report

Bulgaria is one of 58 countries that took part in the 9th Edition of the *Global University Entrepreneurial Spirit Students' Survey*, named shortly the GUESSS Project. Since the launch of GUESSS Project in 2003, it is the first time that our country is presented in this global survey focused on student entrepreneurship, and investigations into (fundamental for entrepreneurship research) topics such as entrepreneurial intentions, nascent entrepreneurship, growth and performance of new ventures, and family firm succession. Also covered are the corresponding influencing factors at the individual level (e.g., motives, social identity), family level (e.g., family structure, family relationships), university level (e.g., entrepreneurship education, entrepreneurial climate and learning), contextual level (e.g., culture), and finally Covid-19 pandemic level.

This report aims to present the survey's findings and to provide insights into students' (entrepreneurial) career choice intentions, their entrepreneurial activities, and the underlying drivers of youth entrepreneurship and entrepreneurship in Bulgaria. However, further examination and analysis is needed to cover the entire range of survey data collection and expand further data regarding in-depth insights. Thus, the present paper provides headline, but realistically only a limited [superficial] series of data from which we derive conclusions and offer insights.

The report is based on a dataset collected in the period April 1, 2021 – June 30, 2021, in Bulgaria within the GUESSS time frame for collecting data globally. The GUESSS standard questionnaire has been distributed to students in undergraduate (Bachelor level), graduate (Master level), PhD and other grade (e.g., MBA) in attempt to cover all project fields of studies such as business and management, social sciences and economy and also arts and humanities, computer sciences and IT, engineering, human medicine and health sciences, law, mathematics, natural sciences, science of art, and others. Besides, an effort has been expended to build, to the greatest extent possible, a representative sample. Nevertheless, subjects such as business administration and economics are disproportionately represented. Distribution of the questionnaire to students was by e-mail; GUESSS survey information was largely shared by social media to university students groups. E-mail distribution was processed centrally and automated by New Bulgarian University, Sofia University and the University of National and World Economy thus reaching their thousands of students. For smaller students groups in other universities, we relied on our colleagues' cooperation to distribute the questionnaire link directly to their students.

By the end of the survey's period we had received a total of 717 students' complete responses from the coordinating university – New Bulgarian University and the five main national universities partners – Sofia University “St. Kliment Ohridski”, University of National and World Economy, University of Ruse “Angel Kanchev”, Plovdiv University “Paisii Hilendarski” and D. A. Tsenov Academy of Economics in Svishtov and, the other universities (e.g., Burgas Free University).

We hope that present findings will advance and inspire research and practical work on student entrepreneurship and entrepreneurship in general as per the 2021 GUESSS Global Report (Sieger et al. 2021) but mostly and specifically in Bulgaria and the region.

1.2 The GUESSS project

The GUESSS Project (Global University Entrepreneurial Spirit Students' Survey) is a mission to make global and systematic observations of students' entrepreneurial intentions and activities, and thus to gain

new insights into student entrepreneurship for the past 18 years. It is one of the largest entrepreneurship research projects in the world. Organisers are the Swiss Research Institute of Small Business and Entrepreneurship at the University of St.Gallen, and the Department of Management and Entrepreneurship at the University of Bern in Switzerland.

Based on GUESSS data collection and besides the global and national reports on students entrepreneurship, scholars around the world dive deep into data analyses and publish joint research papers in leading journals on entrepreneurship and business such as Strategic Entrepreneurship Journal, Global Strategy Journal, Journal of Business Research, Entrepreneurial Business and Economics Review, Small Business Economics, International Entrepreneurship and Management Journal, Journal of Entrepreneurship in Emerging Economies, Research Policy, International Journal of Business Venturing, Entrepreneurship Theory & Practice, and others.

The 2021 Global Report “*Global Student Entrepreneurship 2021: Insights From 58 Countries*” presents the related findings and insights of the 9th data collection wave in the history of GUESSS with record 266 943 students providing complete responses in 58 countries on all continents.

2 Sample Demographics

2.1 University and study

In this first 2021 edition for Bulgaria, a total of 717 students' responses were received from the coordinating university – New Bulgarian University (NBU), the five main national universities partners – Sofia University “St. Kliment Ohridski” (SU), University of National and World Economy (UNWE), University of Ruse “Angel Kanchev” (UR), Plovdiv University “Paisii Hilendarski” (PU) and D. A. Tsenov Academy of Economics in Svishtov (AES) and, the other universities (e.g., Burgas Free University (BFU)).

Several units of those national university partners providing business and entrepreneurship education have been particularly supportive, ensuring broad and wide distribution of the questionnaire among their students – Faculty of Economy and Business administration (SU), Institute of Entrepreneurship (UNWE), and the Faculty of Business and Management (UR). Other universities joined the present initiative later as BFU.

So, in 2021 at least* 7 national universities collaborated in this project providing 195 respondents studying in SU, 194 in NBU, 128 in UR, 107 in UNWE, 39 in PU, 33 in AES and, 21 in others. Almost 55 percent of the respondents study in the biggest and oldest Bulgarian university – SU and, the GUESSSS Project coordinator university – private 30-years old NBU, both of them situated in the country's capital (Figure 1). Another 33 percent of the participants in the survey are students of UR and UNWE focused mainly on business and economy. Apart from NBU, all the other partner universities are public. Also, three of the universities are sited in Sofia, the others – in the country's province. Such a sample predisposes a certain variety of contexts, students, and institutional profiles.

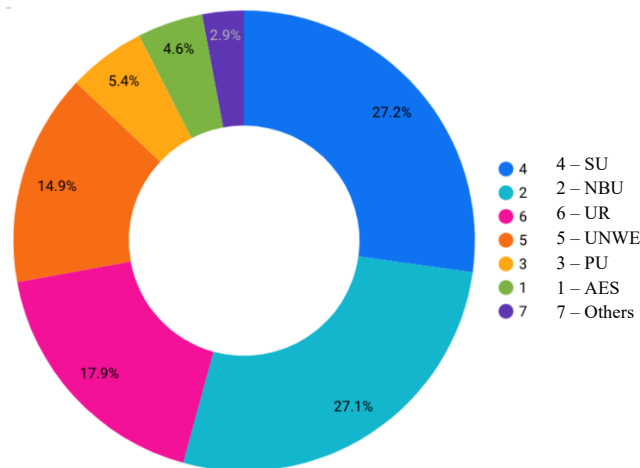


Figure 1. Share of Respondents by University (N=717)

Source: 2021 GUESSSS dataset, author's elaboration.

The student population in Bulgaria for 2020/2021 is estimated at 219 791 comprising the Professional Bachelor, Bachelor and Master degrees and 6 570 PhD students (NSI 2021). The online questionnaire was distributed by the national university partners to at most 28 000 students which is around 13 percent of all the students enrolled in universities; thus, the return rate is around 2.5 percent (not counting 21 PhD respondents).

Most of the respondents are students in Bachelor programmes (76.8 percent). Almost 18 percent of the respondents are Master degree's students and only 2.9 percent – PhD students (Figure 2).

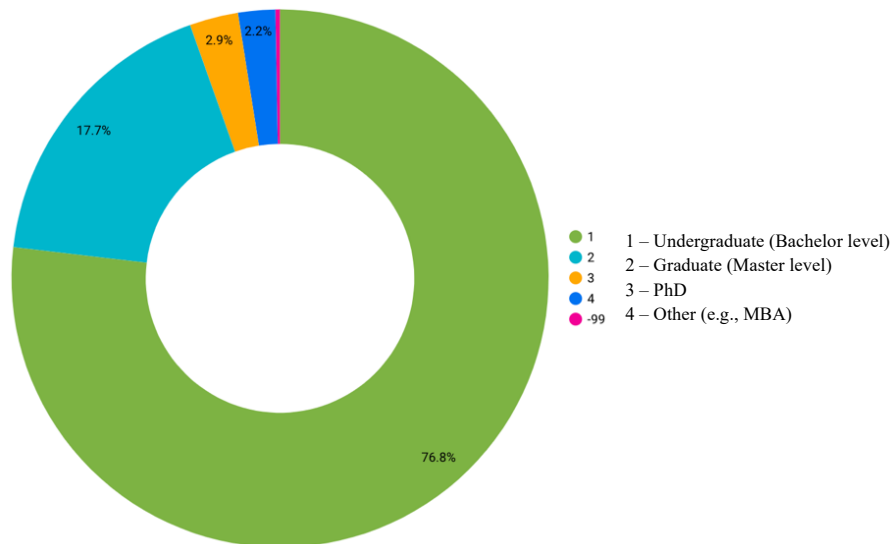


Figure 2. Level of Study of Respondents (N=717)

Source: 2021 GUESSS dataset, author's elaboration.

Three clusters of fields of studies are clearly identified according to data. First, the most presented in the sample fields of study formed by Business administration (33.2 percent) and Economics (21.9 percent) (Figure 3). Second, cluster formed by Computer sciences (9.8 percent), Social sciences (8.1 percent), and, arts (7.4 percent). Third, cluster formed by Natural sciences, Law, Science of art, Engineering, Mathematics and Medicine (share of 3.6 percent and below). Certainly, at this stage, we note that fields of study such as business administration and economics (in totally 55.1 percent) are much more represented in the sample, while others – medicine and engineering – are under-represented compared to official national education statistics for 2020/2021 of the National Statistics Institute.

Besides, those programmes of Business administration and Economics usually incorporate Entrepreneurship education in their curriculums. In other words, it is interesting for us to investigate how this fact impacts the career choice intentions and attitudes towards entrepreneurship of these students compared to students from other fields of study without similar education. We assume that students with business administration and economics backgrounds would be acting rather pro-actively entrepreneurially.

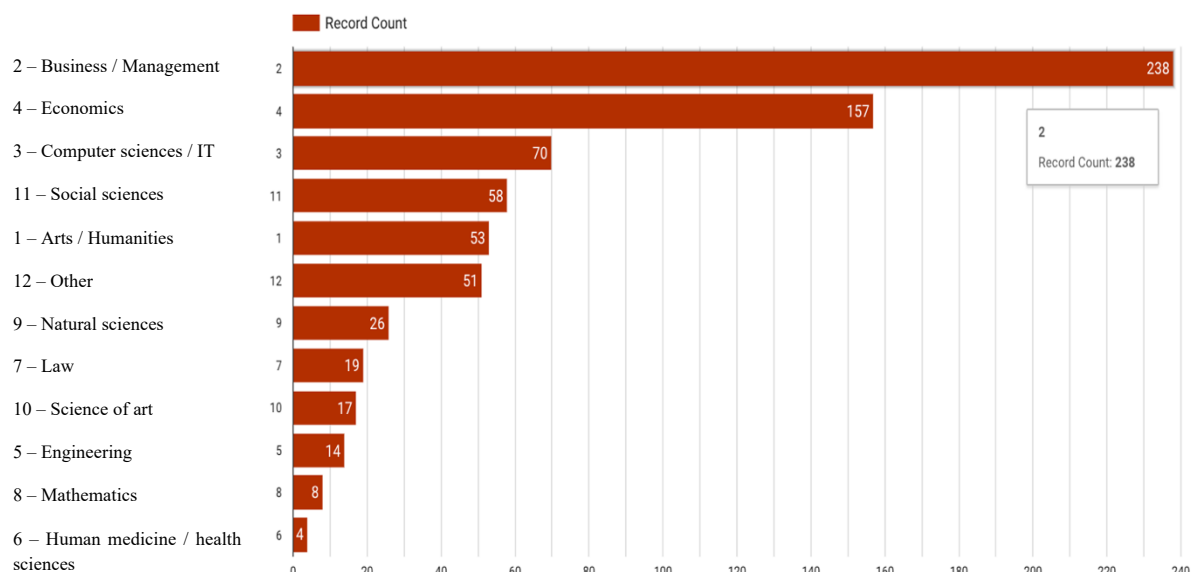


Figure 3. Field of Study of Respondents (N=717)

Source: 2021 GUESSS dataset, author's elaboration.

2.2 Nationality and geographical location of respondents

78.2 percent of the respondents declared* indicated Bulgarian nationality, only 1.8 percent identified as Greek, Chinese, American or other nationality, no data was provided for the remaining 19.8 percent, no one claimed to have Cypriot or Macedonian nationality as we suggested in the pre-survey period taking into consideration six larger groups of foreign students enrolled in our programmes.

A somewhat interesting matter observed was the impact of Covid-19 restrictions on the array of geographical locations of the respondents in our sample. The university partners are based in four cities – Sofia, Russe, Svishtov, Plovdiv and Burgas. However, since the survey was conducted during lockdown, with online education, students were not physically present in their universities (with few insignificant exceptions). As shown on the map below (Figure 4), the respondents in our sample were widely geographically dispersed throughout the country, which informs us (to a degree) as to the representation, diversity and coverage of the survey. We observe that all Bulgarian regions (NUTS 3) are represented.

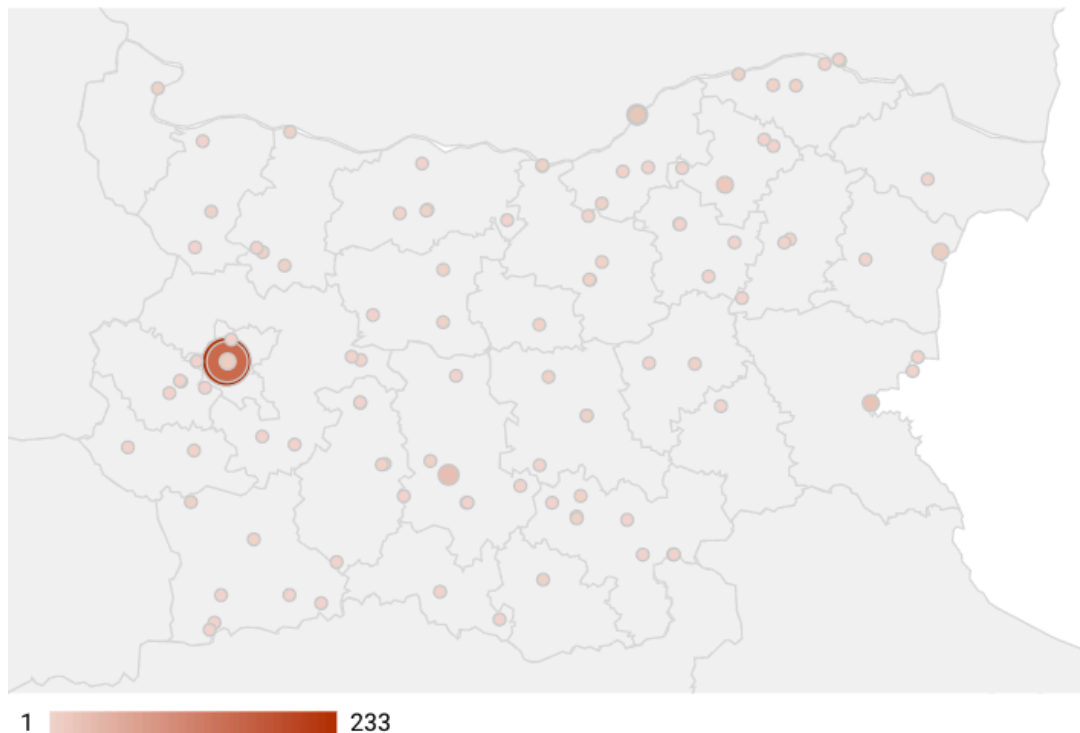


Figure 4. Location of Respondents in Bulgaria (N=717)

Source: 2021 GUESSS dataset, author's elaboration.

Moreover, even though the majority of respondents were located in Bulgaria at the time of the survey, we nonetheless observe the presence of others in different countries, especially in Europe and the USA (Figure 5). Further in-depth analysis of the data could provide us insights into the immediate and later career choices and activities comparing both groups divided for now by geographical location basis.



Figure 5. Location of Respondents around the world (N=717)

Source: 2021 GUESSS dataset, author's elaboration.

2.3 Age, gender and marital status

Almost 60 percent (exactly, 57.7 percent) of the respondents indicated to be born between 1998 and 2001, which means that they are 20-23 years old (Figure 6).

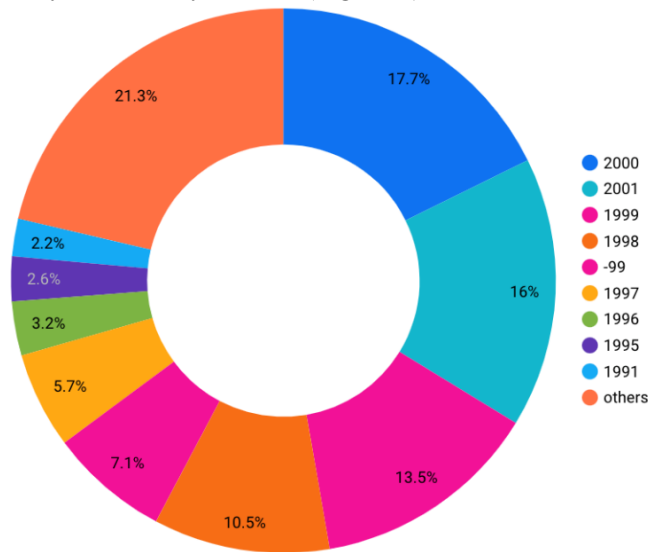


Figure 6. Year of Birth of Respondents (N=717)

Source: 2021 GUESSS dataset, author's elaboration.

Slightly over 60 percent of the respondents are female (Figure 7).

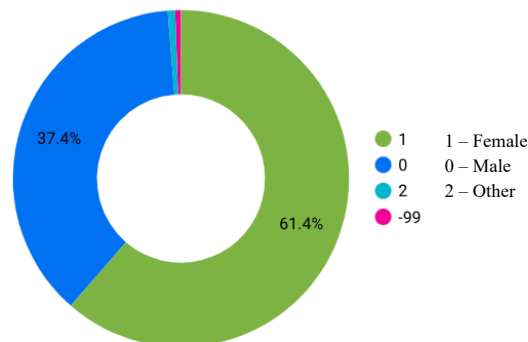


Figure 7. Gender of Respondents (N=717)

Source: 2021 GUESSS dataset, author's elaboration.

Almost 60 percent of the respondents are single (Figure 8).

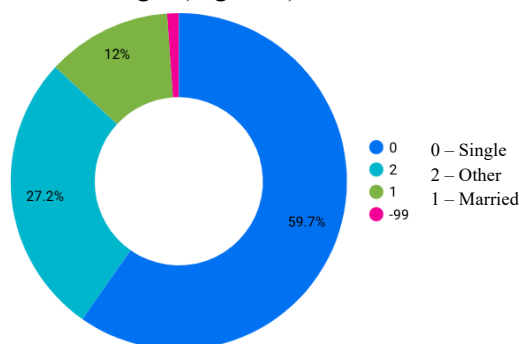


Figure 8. Marital Status of Respondents (N=717)

Source: 2021 GUESSS dataset, author's elaboration.

Mostly, the respondents are very positive and satisfied by their life and their conditions of life. Almost 50 percent (30.5 percent somewhat agree and 18.8 percent agree) of the respondents agree that in most ways their life is close to their ideal. Almost 70 percent of the respondents agree (25.2 percent somewhat agree, 23.6 percent agree and 19.5 percent strongly agree) that the conditions of their life are excellent.

Almost 70 percent of the respondents agree (25.8 percent agree, 22.6 percent strongly agree and 19.9 percent somewhat agree) that they are satisfied with their life. Over 60 percent of the respondents agree (22.2 percent somewhat agree, 21.3 percent agree and 20.5 percent strongly agree) that so far, they have gotten the important things they want in life. Almost 60 percent of the respondents agree (20.9 percent agree, 19.7 percent strongly agree and 17.2 percent somewhat agree) that if they could live their life over, they would change almost nothing. Thus, this context would rather position our students on the side of entrepreneurial intentions and activities based on opportunity than on necessity.

3 Students' career path

The study of the career choice intentions and entrepreneurial intentions is central to the GUESSS Project. The students' career paths were mainly explored by using four multi-item intention questions grouped into two groups concerning: (i) intentions to pursue career path immediately (right after completion of studies), and 5 years later after studies; (ii) current status e.g. starting (trying to start) own business, on the one hand, and already running own business on the other hand.

3.1 Career choice intentions and entrepreneurial intentions

3.1.1 Directly after studies vs. 5 years later

Almost 28 percent of all student-respondents intend to establish a business directly after their studies, compared to more than 44 percent who intend to pursue an entrepreneurial activity 5 years after completion of studies (Figure 9). So, entrepreneurial intentions rise more than 150 percent between these two life time points. In both cases the proportion of intentional entrepreneurs is larger in Bulgaria compared to the average of the other 58 countries – only just under 18 percent of international students planned to be entrepreneurs directly after studies vs. more than 32 percent 5 years later (Sieger et al. 2021, 4).

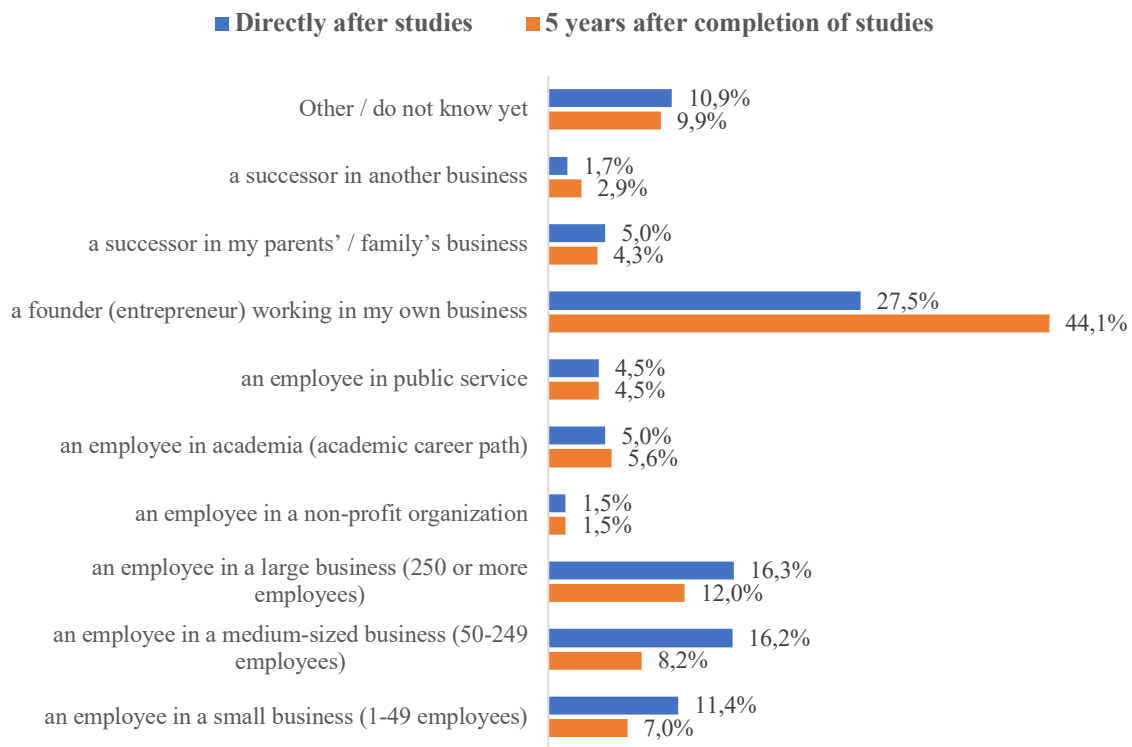


Figure 9. Detailed career choice intentions (N=717)

Source: 2021 GUESSS dataset, author's elaboration.

3.1.2 Employees vs. entrepreneurs vs. successors

The analyses of the career groups of (i) employees, (ii) entrepreneurs, and (iii) successors in business shows that almost 62 percent of students prefer the employment in a company, public institution, non-profit organisation or academia directly after studies (Figure 10). Slightly more students provided concrete plans for 5 years later.

At this starting point, their preference stands for the employment in medium-sized and large enterprises (in total, 32.5 percent). Still, in the next period of 5 years many of them intend to proceed to reorientation

and start their own business initiative. We accept that to gain professional experience first is a common and hugely preferred career choice and expectations for career development that corresponds also to the overall pattern on global level “first employee, then entrepreneur” observed as stable and central during the years of the GUESSS Project. However, 21.6 percent of all students chose the entrepreneurial activity at both point of time – directly after studies and 5 years later.

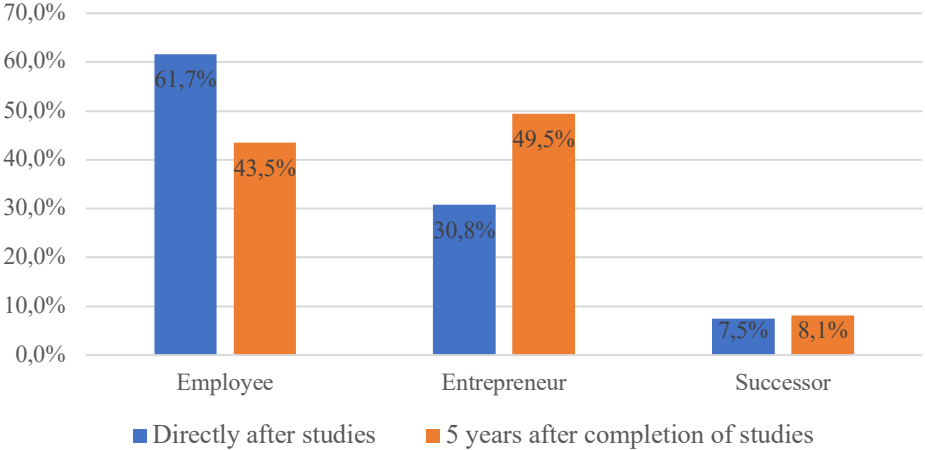


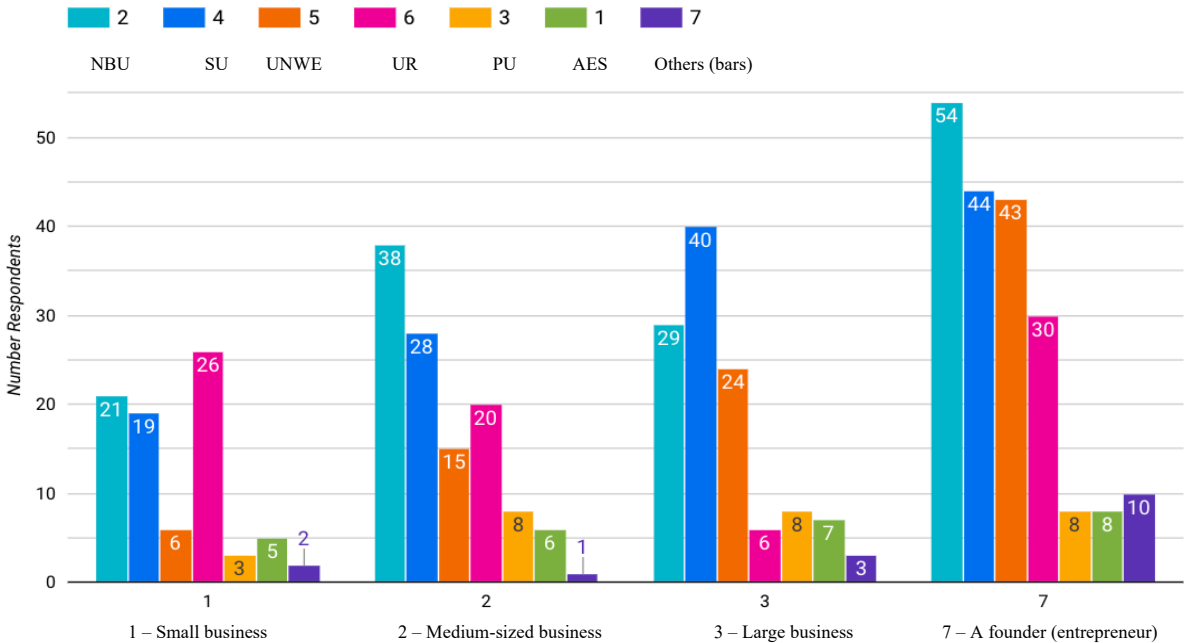
Figure 10. Career choice intentions by groups (directly N=639, 5 years later N=646)

Source: 2021 GUESSS dataset, author’s elaboration.

3.1.3 Choices by universities

When we compare the data between career choice intentions for employment in companies and starting a business directly after studies and the relevant universities we observe the following pattern: first choice of the students from everyone of the studied universities is to establish their own business; however, the great share of those entrepreneurship oriented students, a third of them, pursue their studies in NBU, followed by equally one fifth (around 22 percent in both cases) by students of SU and UNWE (Figure 11).

Still, there is differences in companies’ size choice for employment as next choice; while students from SU prefer to start career in large companies, those of NBU choose employment in medium-sized businesses and students of UR are likely to work for small business.

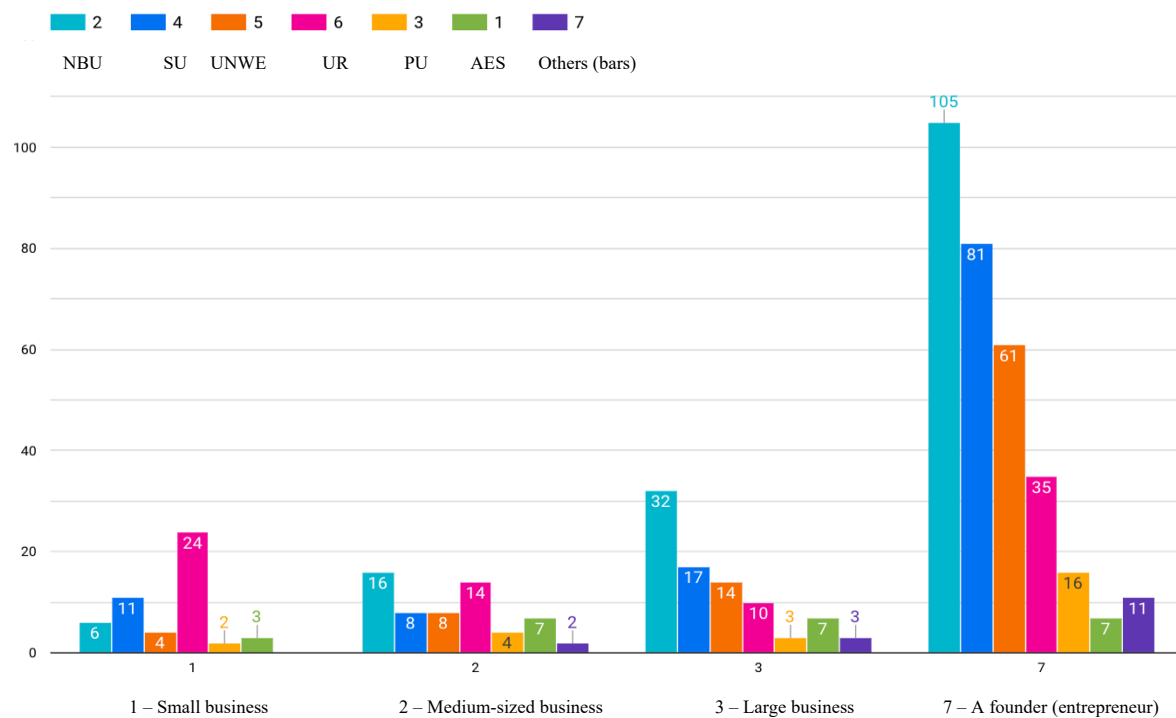


Note: Small business (1-49 employees), medium-sized business (50-249 employees), and large business (250 or more employees).

Figure 11. Career choice intentions by university, directly after studies (N=717)

Source: 2021 GUESSS dataset, author’s elaboration.

We observe a similar pattern concerning the career choice intentions 5 years after completion of the studies, namely: share of NBU students is also one third of all the students intending to be entrepreneurs, followed by the students of SU (26 percent), and then those of UNWE (19 percent). At that moment career plans of a second group of students from NBU, if not entrepreneurship, are related to large business companies, while the choice of UR students remains unchanged for employment in small businesses (Figure 12).



Note: Small business (1-49 employees), medium-sized business (50-249 employees), and large business (250 or more employees).

Figure 12. Career choice intentions by university, 5 years after completion of studies (N=717)

Source: 2021 GUESSS dataset, author’s elaboration.

3.2 Nascent and active entrepreneurs

3.2.1 Nascent vs. active entrepreneurs

Slightly more than 37 percent of all respondents (N=717) confirmed that they were trying to start their own business or becoming self-employed at the time of the survey. Also at that time 17.6 percent of all respondents were already running their own business or were already self-employed (Figure 13).

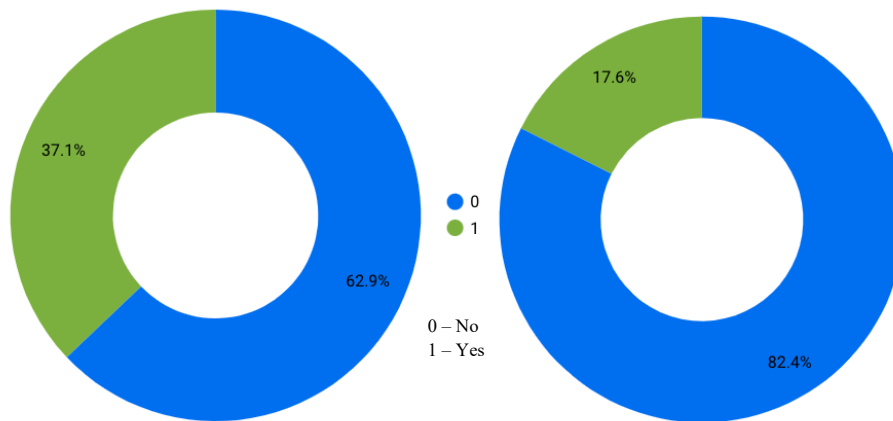


Figure 13. Share of nascent (on left) and active (on right) entrepreneurs (N=717)

Source: 2021 GUESSSS dataset, author's elaboration.

The share of students being both active and nascent entrepreneurs is 13.1 percent of the sample or 94 students. Thus, as they are not starting a business initiative for first time, we define this group of students 'serial' entrepreneurs. Otherwise, if we analyse the cases of students who have started their own entrepreneurial initiative without running their own business previously, then we reveal that this share amounts 172 students or 24 percent of all respondents.

Neither active, nor nascent entrepreneurs? The share of those students is 70.9 percent or totally 419 students of all respondents in Bulgaria.

3.2.2 Nascent vs. active entrepreneurs by field of study

Cross checking the data between the respondents' main field of study and their responses concerning nascent entrepreneurial activity, we observe a pattern that is not unexpected of greatest proportions of nascent entrepreneurs studying business and management (42.5 percent), and economics (21.4 percent), then social sciences (9 percent) and arts and computer sciences (both with 6.4 percent) (Figure 14).

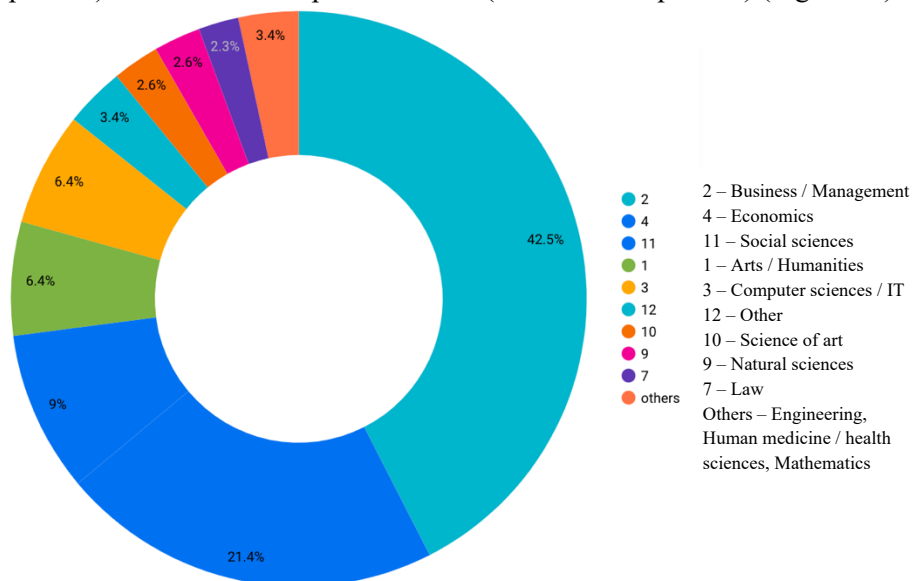


Figure 14. Nascent entrepreneurs by field of study (N=717)

Source: 2021 GUESSSS dataset, author's elaboration.

As for the actively entrepreneurial respondents, we notice a similar pattern; again, the greatest shares of active entrepreneurs are studying business and management (40.5 percent), and economics (24.6 percent), social sciences (7.9 percent) and then arts and computer sciences (both with 5.6 percent) (Figure 15).

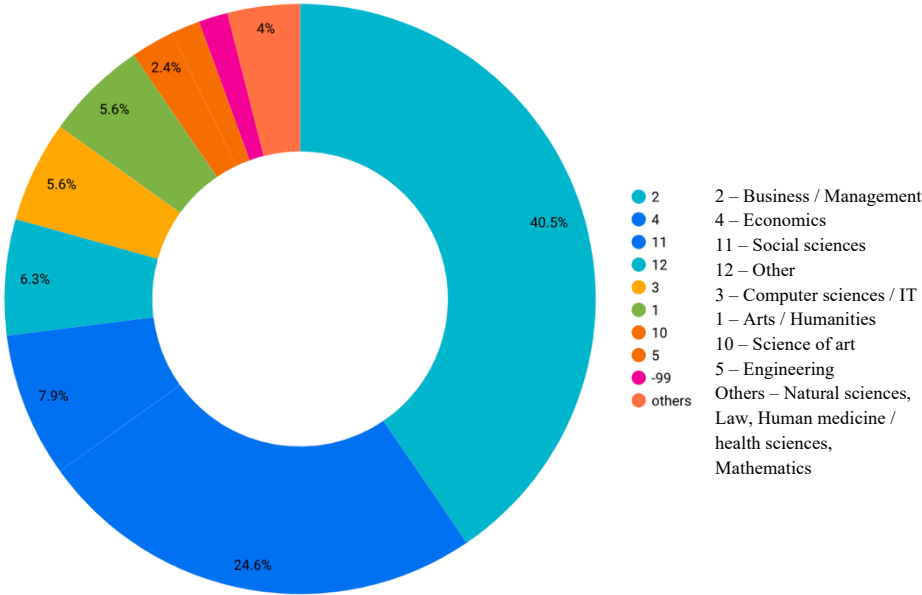


Figure 15. Active entrepreneurs by field of study (N=717)

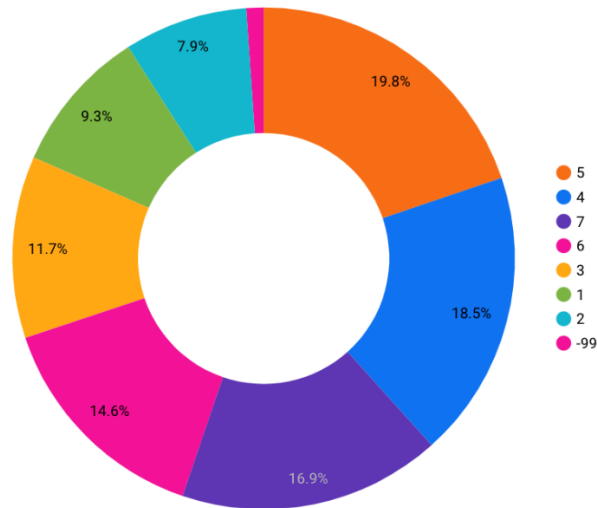
Source: 2021 GUESSS dataset, author’s elaboration.

4 Drivers of entrepreneurial intentions

4.1 University context

4.1.1 Atmosphere

Overall, 51.3 percent of the respondents agree that the atmosphere at the university inspires them to develop ideas for new businesses; for 16.9 percent of them the university's context is very much inspiring (Figure 16). Still, there are almost 30 percent that have mostly negative perceptions, of whom less than 10 percent (9.3 percent) describe the atmosphere as uninspiring.



Note: Likert scale (1=not at all, 7=very much).

Figure 16. University atmosphere (N=717)

Source: 2021 GUESSS dataset, author's elaboration.

When we deepen the analyses in order to understand the atmosphere in each of the studied universities, we observe some patterns. Before we do, we imply differentiation based on the sample size by university. So, we identify four main clusters: (i) SU and NBU, (ii) UR and UNWE, (iii) PU and AES, and (IV) others. Then, we summarize the positive responses (5 to 7) and we find that: more NBU students assess the university atmosphere positively, it is more inspiring to develop ideas for new businesses, than SU students (56.2 percent vs. 43.1 percent), more UR students than UNWE students (64.7 percent vs. 42 percent), more AES students than PU students (57.6 percent vs. 33.4 percent), and finally, others university students are mostly inspired than all the other students (76.2 percent) (Figure 17).

We suggest also to emphasize two groups of data: (i) the one of the very much satisfied students with the inspiring university atmosphere, and (ii) the one of students that neither agree no disagree. Then, in the first case the picture does not differ at all: more NBU students than SU students definitely agree with the statement (16.5 percent vs. 15.9 percent), more UR students than UNWE students (22.7 percent vs. 9.3 percent), more AES students than PU students (15.2 percent vs. 12.8 percent), and other university students – 42.9 percent. In the second case, where we could find reserves for further developments and 'game-changing' of the universities, a greater share of NBU students are neutral than SU students (22.2 percent vs. 14.9 percent), more UNWE students than UR students (21.5 percent vs. 20.3 percent), more AES students than PU students (18.2 percent vs. 12.8 percent), and other university students – 4.8 percent. Thus, we observe only slight differences in the perceptions in the sequence (UNWE/UR).

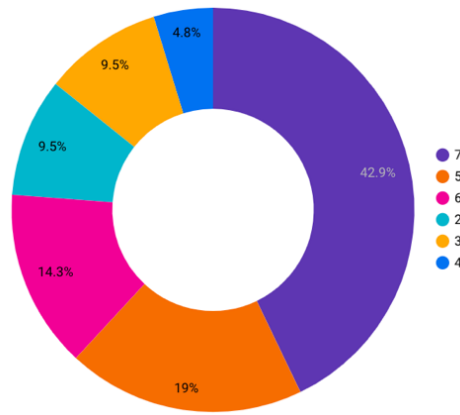
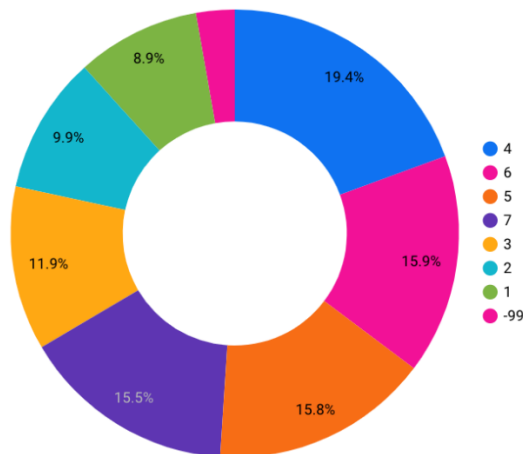


Figure 17. University atmosphere (N=717)

Source: 2021 GUESSS dataset, author's elaboration.

4.1.2 Encouragement

If 15.5 percent of the students confirm that they are very much encouraged to engage in entrepreneurial activities in their university as part of the 47.2 percent that feel encouraged, there is almost 20 percent of the respondents that feel neither encouraged nor discouraged (Figure 18).



Note: Likert scale (1=not at all, 7=very much).

Figure 18. University encouragement (N=717)

Source: 2021 GUESSS dataset, author's elaboration.

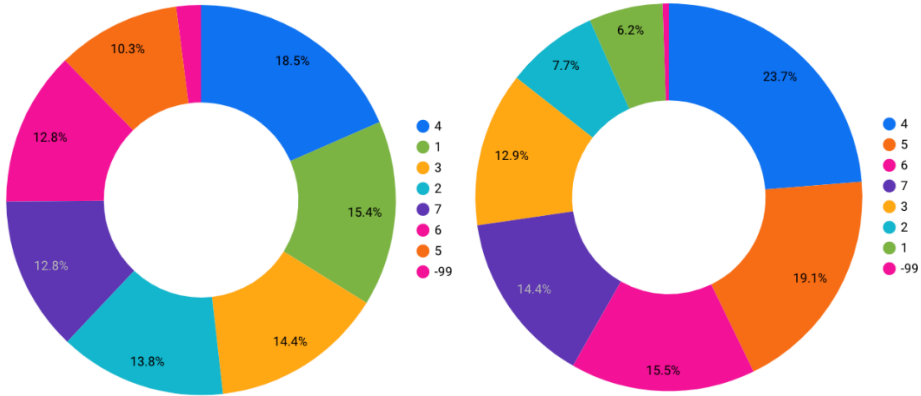
When we go deeper with the analyses to explore the differences in the grade of encouragement of the students entrepreneurial activities in the studied universities, we observe further patterns which we now present. Subject to same reservations, we imply differentiation based on the sample size by university and we chart the positive responses (5 to 7). Then, we find that: more NBU students assess the university encouragement for entrepreneurial activities positively than SU students (49 percent vs. 35.9 percent), more UR students than UNWE students (60.1 percent vs. 47.6 percent), more AES students than PU students (63.6 percent vs. 23.1 percent), and finally, others university students are mostly inspired than all the other students (66.7 percent) (Figure 19).

Following the same logic as before, we now focus on two groups of data: (i) group containing the very much satisfied students (who felt strong university encouragement of entrepreneurial activities), and (ii) group – those students who neither agree nor disagree. So, in the first case the picture does not differs at all: more NBU students than SU students definitely agree with the statement (14.4 percent vs. 12.8 percent), more UR students than UNWE students (19.5 percent vs. 17.8 percent), more AES students

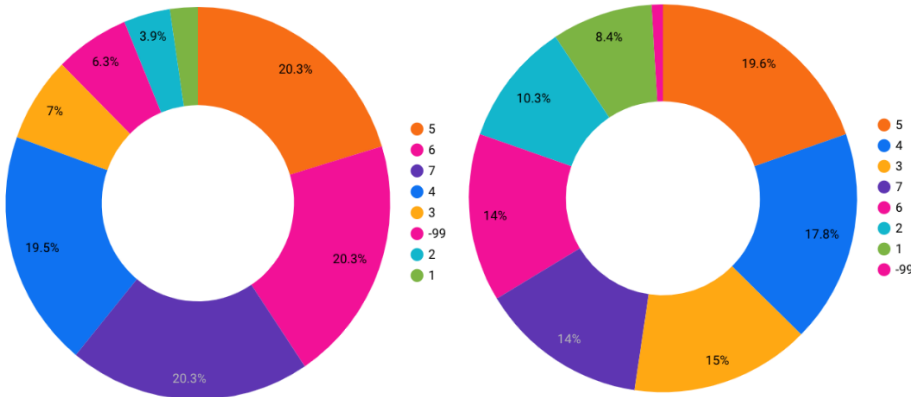
than PU students (12.1 percent vs. 10.3 percent), and other university students – 42.9 percent. In the second case, where again we could make allowances for further developments and ‘game-changing’ of the universities, greater share of NBU students are neutral compared to SU students (23.7 percent vs. 18.5 percent), more UNWE students than UR students (21.5 percent vs. 20.3 percent), more PU students than AES students (15.4 percent vs. 15.2 percent), and other university students – 9.5 percent. Thus, we would conclude again only slight differences in the perceptions in the sequence (UNWE/UR, PU/AES).

Again, generally, we notice that the most entrepreneurially supportive universities (excluding others) ranked in descending order is as follows: AES, UR, NBU, UNWE, SU and PU. However and let’s repeat it, we state that it is important, as a minimum, to take into account the statements above regarding the grouping by sample size and other influencing factors in the first stage analysis.

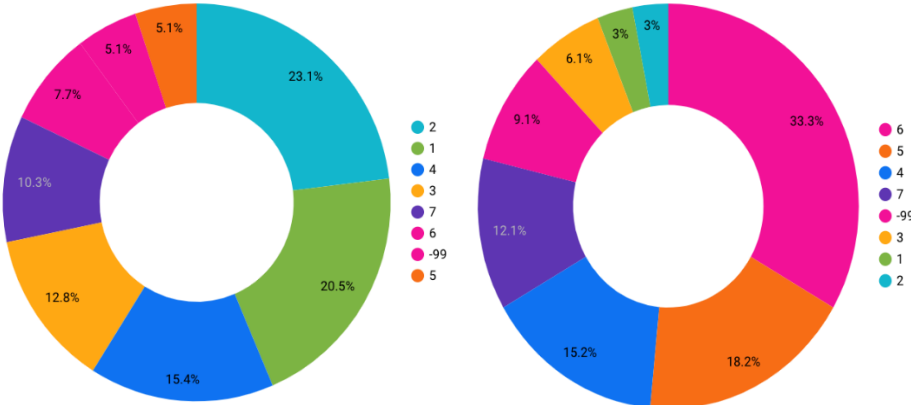
SU (left, N=195) and NBU (right, N=194)



UR (left, N=128) and UNWE (right, N=107)



PU (left, N=39) and AES (right, N=33)



Others (N=21)

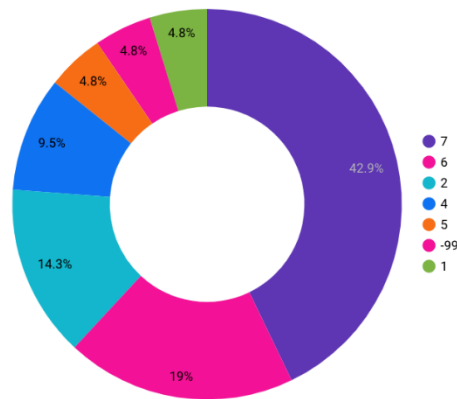


Figure 19. University encouragement (N=717)

Source: 2021 GUESSS dataset, author's elaboration.

4.1.3 Entrepreneurship education

The share of students that never attended a course on entrepreneurship to date is 45.2 percent. 22 percent of respondents have attended at least one entrepreneurship course by choice and 21,5 percent – at least one entrepreneurship course mandatorily. Thus, less than the half of the students have any university preparation for entrepreneurship even in study areas such as business administration (BA) and economics, which represent 55.1 percent of the entire sample. This could be explained by the moderate level of study of the rather young respondents (e.g., not every master programme in BA or economics has entrepreneurship course), by year of study of the respondents (e.g., entrepreneurship courses may be planned in the second part of the programmes but our respondent to be still at first stage) or by lack of courses choice of the respondents (e.g., students in NBU could make a choice of courses from different university programmes depending on their professional orientation and career while it is not possible in all the other universities).

4.1.4 University environment and entrepreneurial reputation of the universities

Only 13 percent are studying in a specific program on entrepreneurship. Still, 25.7 percent have chosen to study at the university mainly because of its strong entrepreneurial reputation.

Given that the university was chosen by the students on the basis of its entrepreneurial reputation, is its environment assessed as supportive of really becoming an entrepreneur? To answer this question we will use only the positive responses (5 to 7 of the Likert 7-point scale used). So, 77.8 percent of the students who chose a university based on its entrepreneurial reputation agree that the atmosphere at the university inspires them to develop ideas for new businesses; 63.6 percent agree that there is a favorable climate for becoming an entrepreneur at the university, and 73.9 percent confirm that the students are encouraged to engage in entrepreneurial activities at the university. Thus, we observe relatively high overall satisfaction based on the university choice. When we crossreference all positive responses, we notice that 55.4 percent of students are simultaneously satisfied by all three features – the university atmosphere, favorable climate and encouragement for entrepreneurship.

4.1.5 Entrepreneurship education and active/nascent entrepreneurship

Deeper analysis shows that 37.2 percent of the students who are currently trying to start their own business or becoming self-employed are students who to date have never attended a course on entrepreneurship. 26.7 percent of the nascent entrepreneurs have attended at least one optional entrepreneurship course and 23.7 percent – at least one mandatory entrepreneurship course. This implies that there are other factors that trigger stronger entrepreneurial appetites.

On the other hand, when we explore the link between the entrepreneurship education and active entrepreneurship, we find that 29.4 percent of the students who are already running their own business or became self-employed are students who never attended a course on entrepreneurship so far. 23.8 percent of the active entrepreneurs have attended at least one entrepreneurship course as elective, and 27.8 percent – at least one entrepreneurship course as compulsory part of their studies.

4.1.6 Entrepreneurial reputation of the university and active/nascent entrepreneurship

Only 18.4 percent of the nascent entrepreneurs are studying in a specific program on entrepreneurship; however, 28.6 percent of the nascent entrepreneurs have chosen to study at the university mainly because of its strong entrepreneurial reputation.

As with nascent entrepreneurs, only 20.6 percent of the active entrepreneurs are studying in a specific program on entrepreneurship. Still, 29.4 percent of the active entrepreneurs have chosen to study at the university mainly because of its strong entrepreneurial reputation.

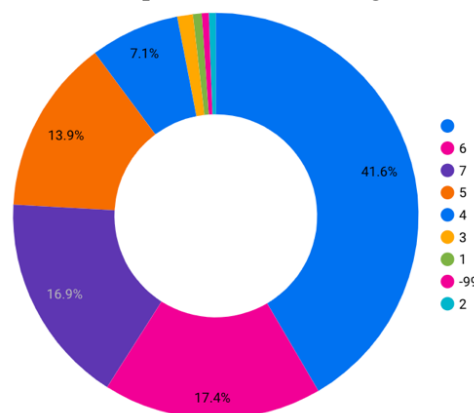
4.2 Locus of control, attitude, and entrepreneurial self-efficacy

4.2.1 Entrepreneurial self-efficacy and nascent/active entrepreneurship

A total of 419 students identify as nascent or active entrepreneurs (58.4 percent of all respondents), of which 25.6 percent assessed their self-efficiency highly (5 to 7 of the Likert 7-point scale used), competent at the same time in identifying new business opportunities, creating new products and services, managing innovation within a business, being a leader and communicator, building up a professional network, commercializing a new idea or development, and successfully managing a business.

4.2.2 Locus of control and nascent/active entrepreneurship

Students declaring themselves nascent or active entrepreneurs usually assess well their capacity to look after their personal interests; therefore when they make plans, they are almost certain to make them work, and they can pretty much determine what will happen in their life. For example, as shown on Figure 20, 16.9 percent strongly agree that they are usually able to protect their personal interests, 17.4 percent agree with this statement and 13.9 percent somehow agree.



Note: Likert scale (1=strongly disagree, 7= strongly agree), blue point without number – no nascent/active entrepreneurs.

Figure 20. Personal interests protection (N=717)

Source: 2021 GUESSSS dataset, author's elaboration.

As for the nascent or active entrepreneurs certitude to execute successfully their plans, we observe an identical picture: 18.5 percent strongly agree that when they make plans, they are almost certain to make them work, 19.5 percent agree with this statement and 12.7 percent somehow agree.

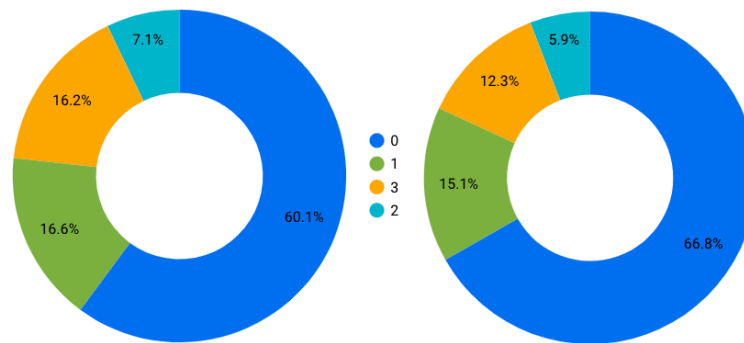
Turning again to the capacity to determine what will happen in their lives, we note that 12 percent agree with this statement, 16.2 percent somehow agree and only 7.5 percent strongly agree.

Thus, to conclude this section summarizing the results, we state that almost all nascent or active entrepreneurs (50.7 percent of all respondents in the sample) have high self-confidence.

4.3 Family background / society as a whole

4.3.1 Self-employed or major owners of a business parents

The share of students whose parents are self-employed is 39.9 percent of all respondents; the share of students whose parents are majority owners of a business – 33.3 percent (Figure 21).



Note: 0 – No, 1 – Yes, father, 3 – Yes, both, 2 – Yes, mother.

Figure 21. Family self-employment (left side) or business ownership (right side) (N=717)

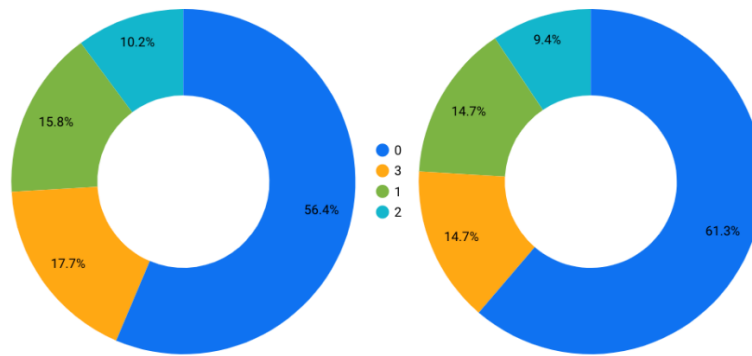
Source: 2021 GUESSS dataset, author’s elaboration.

4.3.2 Entrepreneurial parents and active/nascent entrepreneurship

For almost 18 percent of nascent entrepreneurs, both parents are self-employed; for almost 15 percent, both parents are majority owners of business (Figure 22). Respectively, they have almost 16 percent and 15 percent paternal involvement in freelance or business activities, and almost 13 percent and 10 percent maternal involvement.

In contrast, around 60 percent of the nascent entrepreneurs do not have entrepreneurial parents. More research could provide more insights into the variances and linkages or even serendipities between degrees of nascent entrepreneurship, family background in business, and university and programmes choices.

Another point we note important is that minority business ownership should not be excluded from these studies as it reveals similarly entrepreneurial context to explore entrepreneurial spirit.

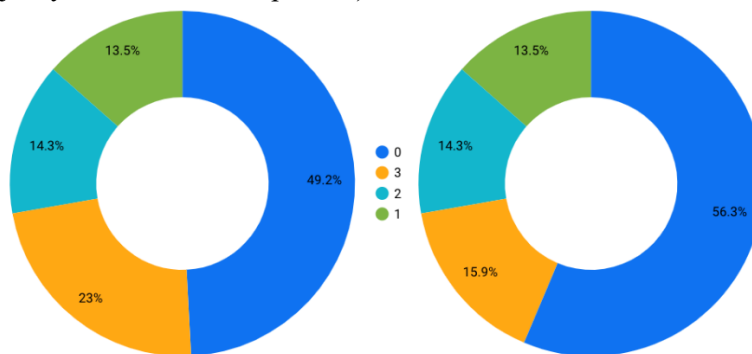


Note: 0 – No, 3 – Yes, both, 1 – Yes, father, 2 – Yes, mother.

Figure 22. Self-employment (left side) or business ownership (right side) parents of nascent entrepreneurs (N=266)

Source: 2021 GUESSS dataset, author’s elaboration.

As for the active entrepreneurship, we find that active entrepreneurs have 23 percent of both parents self-employed and 15.9 percent of majority business owners parents (Figure 23). Overall, the entrepreneurial family context of active entrepreneurs is stronger in both cases (respectively for active and nascent entrepreneurs, 50.8 percent and 43.7 percent of self-employed parents; 43.7 percent and 38.8 percent of majority business owners parents).



Note: 0 – No, 3 – Yes, both, 2 – Yes, mother, 1 – Yes, father.

Figure 23. Self-employment (left side) or business ownership (right side) parents of active entrepreneurs (N=126)

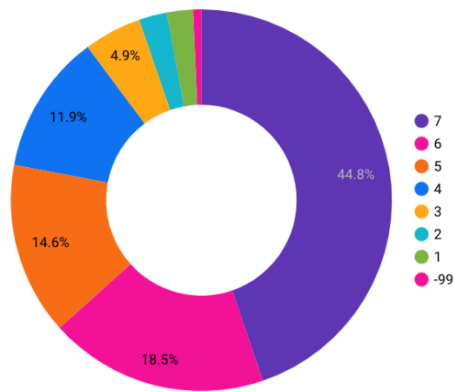
Source: 2021 GUESSS dataset, author’s elaboration.

4.3.3 Support of the environment to entrepreneurs

Generally, 77.9 percent of all respondents affirmed that if they would pursue a career as an entrepreneur, the close family would react positively; the reaction would be very positive according 44.8 percent of the respondents (Figure 24).

79.9 percent of all respondents affirmed that their friends would react positively, of which 40.6 percent very positively.

64.5 percent of all respondents affirmed that their fellow students would react positively, of which 25.4 percent very positively while 22.2 percent not positively nor negatively.

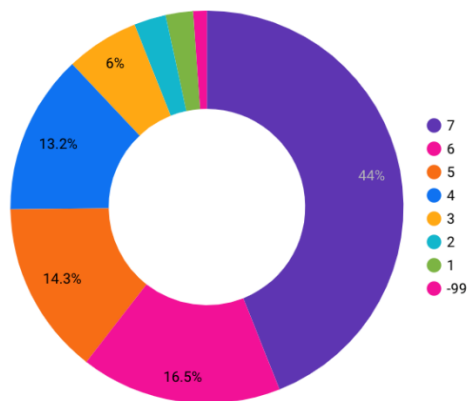


Note: Likert scale (1=very negatively, 7=very positively).

Figure 24. Family support (N=717)

Source: 2021 GUESSS dataset, author's elaboration.

74.8 percent of nascent entrepreneurs affirmed that the close family react positively; the reaction would be very positive according 44 percent of the respondents (Figure 25).



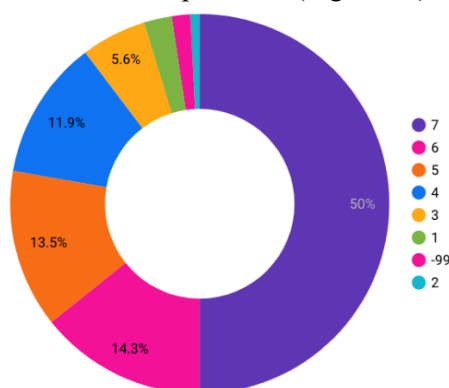
Note: Likert scale (1=very negatively, 7=very positively).

Figure 25. Family support to nascent entrepreneurs (N=717)

Source: 2021 GUESSS dataset, author's elaboration.

78,6 percent of nascent entrepreneurs affirmed that their friends would react positively, of which 43.2 percent very positively. 65.4 percent of nascent entrepreneurs affirmed that their fellow students would react positively, of which 27.4 percent very positively and only 17.7 percent not positively nor negatively.

77.8 percent of active entrepreneurs affirmed that the close family react positively; the reaction would be very positive according 50 percent of the respondents (Figure 26).



Note: Likert scale (1=very negatively, 7=very positively).

Figure 26. Family support to active entrepreneurs (N=717)

Source: 2021 GUESSS dataset, author's elaboration.

76.9 percent of active entrepreneurs affirmed that their friends would react positively, of which 44.4 percent very positively. 65.8 percent of active entrepreneurs affirmed that their fellow students, would react positively, of which 32.5 percent very positively and only 19 percent not positively nor negatively.

5 Nascent entrepreneurs

5.1 Descriptives

5.1.1 Start a business alone vs. in a team

Bulgarian nascent entrepreneurs preferred to start a business on their own without any co-founders (50.6 percent, N=172). Those who preferred to start a business in a team with 1 co-founder (33.7 percent) prevailed over those who collaborate, with 2 co-founders (8.7 percent), and finally with 3 or more co-founders (5.8 percent).

Nascent entrepreneurs who choose to be majority owner in the new business (52.9 percent); their second choice is to have 50% of the business (35.5 percent), and their final choice is minority owner (9.3 percent).

The main reason for starting in business alone is because the nascent entrepreneurs does not want a co-founder (16.9 percent). At second place we find two equally cited causes: it is a type of self-employment that does not need a co-founder and so far, they have not looked for a co-founder, so it is a future choice (11 percent in both cases). Finally, the issue is that no suitable co-founder is found (7 percent) and other reason not listed (4 percent).

5.1.2 Activities already carried out in order to start the business

All nascent entrepreneurs have already carried out some activities in order to start the business. In first place comes the collection of information about markets or competitors (54.1), also they have discussed the product or business idea with potential customers (44.8), written a business plan (38.4), started product or service development (29.7), started marketing or promotion efforts (21.5) and even purchased material, equipment or machinery for the business (19.8). 16.3 of the respondents have already sold products or services.

However, only 11 percent of nascent entrepreneurs state that they have registered the business. 8.7 percent have attempted to obtain external funding and only 4.1 have applied for a patent, copyright, or trademark.

5.2 Characteristics

5.2.1 Entrepreneurial idea and economic sector

Start-up projects of nascent entrepreneurs in the minority of cases emerge from a university course (16.9); only in 20.9 cases it is related to university; still, 60 percent of the entrepreneurial projects are largely independent from the university.

Then, the nascent entrepreneurs plan to complete the founding process mostly during coursework (30.2) or at later stage - up to 2 years after completion of the studies (26.7), and fewer right after the studies (23.3). 18.6 of them do not know yet.

Which economic sectors to start a business have been chosen or, put differently, have been most attractive for nascent entrepreneurs? In first place, according to their responses is "other": not listed in the questionnaire. So, we could consider as first choice advertising, design and marketing; trade in both variant retail and wholesale is also much preferred; information technology and communication stands right after that; then education and training, and even tourism and leisure. Already, 21.5 percent of nascent entrepreneurs claim that they have created another business before.

6 Active entrepreneurs

6.1 Descriptives

6.1.1 *Running a business alone vs. in a team*

Bulgarian active entrepreneurs preferred to run a business with one co-founder (31 percent, N=126). One quarter of them had no co-owners. 21.4 percent had 2 co-owners, 13.5 percent have 3 co-owners and only 4.8 percent have more than 3 co-owners.

6.1.2 *Main motivations and goals of active entrepreneurs*

Active entrepreneurs strongly agreed (7 point out of 7 in Likert scale) and agreed (5-7 point out of 7 in Likert scale) with the statement that they have created their firm in order, at first place, to advance their career in the business world (69 percent, 5-7).

Then, they are motivated to solve a specific problem for a group of people or to play a proactive role in shaping the activities of a group of people, in both cases that they strongly identify with (e.g., friends, colleagues, club, community) (62.7 percent). Next in the motivations come the desire to play a proactive role in changing how the world operates (60.3 percent). Last in that line is the motif to solve a societal problem that private businesses usually fail to address (such as social injustice, environmental protection) (54.8 percent) after to make money and become rich (57.1 percent).

6.2 Characteristics

6.2.1 *Important for founders*

More than two third of the active entrepreneurs agreed (incl. strongly agreed) with all statements concerning the importance for them as founders to be highly responsible citizens of the world, to provide useful products or services, to share the views and values of the customers, and others (Table 1).

Table 1. Important for founders (N=126)

| <i>No</i> | <i>Statement</i> | <i>Percent</i> |
|-----------|---|----------------|
| 1 | to operate my firm on the basis of solid management practices | 67.5 |
| 2 | to have thoroughly analyzed the financial prospects of my business | 69.0 |
| 3 | to provide a product/service that is useful to a group of people that I strongly identify with (e.g., friends, colleagues, club, community) | 73.0 |
| 4 | to be able to express to my customers that I fundamentally share their views, interests and values | 71.4 |
| 5 | to be a highly responsible citizen of our world | 73.0 |
| 6 | to make the world a "better place" (e.g., by pursuing social justice, protecting the environment) | 68.3 |

Note: Likert scale (1=strongly disagree, 7=strongly agree). Percentage calculated of positive responses (5 to 7).

Source: 2021 GUESS dataset, author's elaboration.

6.2.2 *Important for managers*

For over 68 percent of the active entrepreneurs all aspects concerning management of the company such as strong focus on the society needs, concurrence, competitive advantage, costumers and others, were important (Table 2).

Table 2. Important for managers (N=126)

| <i>No</i> | <i>Statement</i> | <i>Percent</i> |
|-----------|--|----------------|
| 1 | to have a strong focus on what my firm can achieve vis-à-vis the competition | 76.2 |
| 2 | to establish a strong competitive advantage and significantly outperform other firms in my domain | 73.8 |
| 3 | to have a strong focus on the group of people that I strongly identify with (e.g., friends, colleagues, club, community) | 73.0 |

| | | |
|---|--|------|
| 4 | to support and advance the group of people that I strongly identify with (e.g., friends, colleagues, club, community) | 72.2 |
| 5 | to have a strong focus on what the firm is able to achieve for society-at-large | 77.8 |
| 6 | to convince others that private firms are indeed able to address the type of societal challenges that my firm addresses (e.g., social justice, environmental protection) | 68.3 |

Note: Likert scale (1=strongly disagree, 7=strongly agree). Percentage calculated of positive responses (5 to 7).

Source: 2021 GUESSS dataset, author's elaboration.

6.2.3 *Affected by workaholism or not*

Between 66 and 75 percent of the active entrepreneurs often feel that there is something inside them that drives them to work hard, they find themselves continuing work after their co-workers have called it quits, they stay busy and keep their irons in the fire or find themselves doing two or three things at one time such as eating lunch and writing a memo, while talking on the phone (Table 3). Around 61-62 percent of the respondents feel obliged to work hard, even when it is not enjoyable, or "It's important for me to work hard even when I don't enjoy what I'm doing in a hurry and racing against the clock". On the other hand, almost 60 percent of the respondents find it is hard to relax when not working. So, we could rather admit that the active entrepreneurs are affected partly by workaholism and they are in relatively healthy balance taking into account all the responsibility the entrepreneurship imply.

Table 3. Entrepreneur's experiences (N=126)

| <i>No</i> | <i>Statement</i> | <i>Percent</i> |
|-----------|--|----------------|
| 1 | I seem to be in a hurry and racing against the clock. | 61.1 |
| 2 | I find myself continuing work after my co-workers have called it quits. | 69.8 |
| 3 | I stay busy and keep my irons in the fire. | 69.0 |
| 4 | I spend more time working than socializing with friends, on hobbies, or on leisure activities. | 59.5 |
| 5 | I find myself doing two or three things at one time such as eating lunch and writing a memo, while talking on the phone. | 66.7 |
| 6 | It's important for me to work hard even when I don't enjoy what I'm doing. | 61.9 |
| 7 | I often feel that there's something inside me that drives me to work hard. | 75.4 |
| 8 | I feel obliged to work hard, even when it's not enjoyable. | 62.0 |
| 9 | I feel guilty when I take time off work. | 54.0 |
| 10 | It is hard for me to relax when I'm not working. | 43.9 |

Note: Likert scale (1=very negatively, 7=very positively). Percentage calculated of positive responses (5 to 7).

Source: 2021 GUESSS dataset, author's elaboration.

7 The impact of Covid-19 pandemic

The Covid-19 pandemic and its impact on the societies and economies has been central topic since its emergence. The 2021 GUESSS Edition investigates its impact on the student entrepreneurship. Compared to previous GUESSS editions, students' entrepreneurial intentions in 2021 at global level are comparable to previous, which means that they have not been systematically or significantly affected by the pandemic (Sieger et al. 2021).

In Bulgaria, asked whether they plan to create their business largely because of the implications of the Covid-19 pandemic 21.3 percent of the nascent entrepreneurs confirm (36 affirmative responses, N=169); this result positions the country near the world's average (22.1 percent, N=52 194).

Among active entrepreneurs, the share of "Covid entrepreneurs" is much higher on global level (33.7 percent) but also in Bulgaria (33.1 percent, 40 affirmative responses, N=169); again the country is near the world's average. This indicates that the active entrepreneurs have adapted very rapidly to the changing business environment and part of them have created their business because of the pandemic.

Definitely, further investigations on both nascent and active "Covid entrepreneurship" would be valuable.

8 Implications and summary

8.1 Main findings and key messages

717 completed questionnaires from students from all over Bulgaria on their entrepreneurial intentions and activities. Based on the present analysis of the data collection that is far to be exhaustive we propose some main findings:

Regarding students' entrepreneurial intentions and activities

- 27.5 percent of all Bulgarian students intend to be an entrepreneur directly after studies.
- 44.1 percent plan to be an entrepreneur 5 years after completion of studies.
- Both shares of intentional entrepreneurs are larger in Bulgaria compared to average globally (almost 18 percent directly after studies vs. more than 32 percent 5 years later).
- 61.7 percent of Bulgarian students with concrete plans prefer employment directly after studies, while 49.5 percent of them prefer entrepreneurship; Bulgarian case does not differ from the global central and stable pattern "first employee, then entrepreneur".
- 32.5 percent of Bulgarian students preferences are for employment in medium-sized and large enterprises directly after studies.
- 21.6 percent of all students choose career plans of "direct intentional entrepreneurs", they still intend to be an entrepreneur 5 years later.
- 37.1 percent of all students are in the process of founding a new venture (nascent entrepreneurs). 17.6 percent already own and run their own business (active entrepreneurs), which is higher than the global average, respectively 28.4 percent and 10.8 percent.
- Neither active, nor nascent entrepreneurs are 70.9 percent of the students.
- 50.6 percent of Bulgarian nascent entrepreneurs prefer to start a business on their own without any co-founders, if in a team they prefer to collaborate with only 1 co-founder (33.7 percent).
- 31 percent of Bulgarian active entrepreneurs prefer to run a business with one co-founder, one fourth of them do not have co-owners, 21.4 percent have 2 co-owner; thus, Bulgarian case differs from global tendency admitting that founding teams are of crucial relevance for both nascent and active founders (globally, 46,5 percent of all nascent entrepreneurs plan to create their business with co-founders and 62.7 percent of all active entrepreneurs have at least one co-owner).

Regarding influencing factors

- Entrepreneurship education and the entrepreneurial climate at the university are key determinants of entrepreneurial intentions and activities as suggested in the Global Report.
 - Field of study is crucial, with business and management, and economy's students as well as "science of art" students exhibiting the strongest entrepreneurial spirit, which is similar to global findings.
 - 21.3 percent of Bulgarian nascent entrepreneurs and 33.1 percent of Bulgarian active entrepreneurs indicate that they plan to create / have created their new venture largely because
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of the implications of the Covid-19 pandemic; the Bulgarian example corresponds to the global tendencies of “Covid entrepreneurs”.

8.2 Recommendations

We find and accept that global recommendations for student entrepreneurship perfectly fit Bulgarian case (Sieger et al. 2021).

Students should...

- Consider becoming an entrepreneur in whatever form (i.e., as a classic founder or successor in the parents' or in a different firm) as a potential career path, for instance because active entrepreneurs seem rather happy with their new ventures' performances.
- Carefully consider when to create a new venture. Doing it right after studies has certain advantages, like less opportunity costs; but doing it later has advantages as well (as human and social capital can be built up when following the “first employee, then entrepreneur” logic).
- Be aware that being an entrepreneur “does not have to be forever”; changing between an entrepreneurial and non-entrepreneurial career path over one's career is possible; the same is true for relocating across countries.
- Be aware that the university normally offers different forms of support, advice, and the opportunity to meet potential co-founders.

Universities and public institutions should...

- Further improve and expand entrepreneurship education offerings and seek to create an entrepreneurial atmosphere.
- See the Covid-19 pandemic as a potential trigger for entrepreneurship; even though entrepreneurial intentions do not seem to have been affected at global level, an effect regarding entrepreneurial activities is clearly visible.
- Be aware that entrepreneurship has existed for centuries and has thus to be seen also in a general long-term context.
- Seek to provide an objective view on what it means to become an entrepreneur, with all the advantages and disadvantages. Anyone can start a business, but creating a successful business is something different.
- Actively promote entrepreneurial ecosystems with both public and private players.

Entrepreneurship scholars should...

- Further strengthen their efforts when investigating the determinants and outcomes of student entrepreneurship in general as well as the underlying mechanisms.
 - Consider the unique implications of the Covid-19 pandemic, but still keep investigating non-Covid-19-related topics.
 - Contextualize their research by looking at institutional, cultural, and economic boundary conditions.
 - Go for non-traditional topics that also look at the potential downsides of becoming an entrepreneur.
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9 References

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