GUESSS

Global University Entrepreneurial Spirit Students' Survey

Global University Entrepreneurial Spirit Students' Survey 2018

National Report
Republic of Belarus 2018

Radzivon Marozau / Maribel Guerrero / Yuliya Yafimenka

BEROC

БИЗНЕС ШКОЛА ИПМ

Minsk 2019

Table of Contents

List of figures

List of tables

EXECUTIVE SUMMARY

In December 2018 – January 2019, the second Global University Entrepreneurial Spirit Students' Survey was conducted in the Republic of Belarus by Belarusian Economic Research and Outreach Center (BEROC). The same survey was performed in 54 countries from all around the world.

Despite recent policy measures related to the entrepreneurship development, in particularly in the higher education system, most of the indicators that proxy entrepreneurial intention, activities and their drivers have demonstrated the negative trend.

The key quantitative findings of the GUESSS in Belarus are:

- 7.3% of students intend to start up a business as soon as they graduate; in five years after graduation – 47.5%, while the global average levels in 2018 were 9.0% and 34.7% respectively;
- 22.2% of Belarusian students reported that they were trying to start their own business or to become self-employed, while the global average was 30.7%;
- 4.3% of students are already running their own business or are self-employed, while the global average was 11.2%;
- The perceived levels of the university entrepreneurial environment and entrepreneurial education appeared below the global average – 4.1 (35th position) and 4.0 (38th position) respectively;
- The decreasing trends of the main indicators of the entrepreneurial intentions and activities are observed in the neighboring countries: Russia and Poland. At the same time, these changes imply the movement of Belarus towards

the group of developed countries in which the levels of students' entrepreneurial activities and intentions are consistently lower.

- The percentage of students that have not attended to entrepreneurship courses has notably decreased (-6.7 percentage points) that is an outcome of the state policy targeted at the expansion of entrepreneurship-related education.
- The nascent/active entrepreneur ration has increased from 3.8 in 2016 to 5.2 in 2018 meaning that students face external and internal challenges and barriers to transform their entrepreneurial intentions into entrepreneurial actions.
- Policy efforts should be concentrated on promotion of the entrepreneurial environment and education in regional universities that would be in line with the regional development agenda.

1. INTRODUCTION

1.1 The Global University Entrepreneurial Spirit Students' Survey

The GUESSS[1] is a biannual international research project that studies the entrepreneurial intention and activity of university[2] students. The main goal of the project is to generate unique and novel insights into student entrepreneurship in the form of academic and practitioner-oriented output. Particularly, the GUESSS focusses on a) systemization and long-term observation of entrepreneurial intentions and activities of university students; b) identification of antecedents and framework conditions for venture creation and entrepreneurial careers; c) observation and evaluation of the university activities to foster the entrepreneurial education and develop the entrepreneurial environment.

Being one of the largest entrepreneurship research projects in the world, the GUESSS is organized and managed through a cooperation of the University of St. Gallen and the University of Bern. The board consists of Prof. Dr. Urs Fueglistaller (Chairman), Prof. Dr. Thomas Zellweger, Prof. Norris Krueger, and Dr. Frank Halter. The GUESSS CEO is the Prof. Dr. Philipp Sieger.

The GUESSS project disseminates the results in the form of international and country reports as well as academic publications, creating value for different stakeholders (e.g. students, professors, university managers, policy makers) by:

- providing insights on the basic conditions for students' entrepreneurship;
- assessing the university context for entrepreneurship;

[1] For further details, visit the website of the project http://guesssurvey.org/
[2] In this report, the term 'university' refers to all higher education institutions providing tertiary educations such as academies and institutes.

– development and implementation of policies and measures for fostering entrepreneurship in a country.

Using a web-based multi-language questionnaire, the GUESSS survey is conducted every two years. The first wave was administrated in 2003 and, over the past years, the project has steadily grown. In the 2018 edition, 208,000 students representing 3,000 universities from 54 countries participated in the GUESSS. Every participating country is represented by a country team/delegate. The country team recruits interested universities to participate in the data collection process. In Belarus, the GUESSS team is represented by the Belarusian Economic Research and Outreach Center (BEROC) and IPM Business School.

1.2 The GUESSS theoretical framework

The GUESSS's theoretical foundation is the theory of planned behavior (TPB) (Ajzen, 1991; Ajzen, 2002) that is frequently employed in studies on entrepreneurial intentions (Tkachev & Kolvereid, 1999; Iakovleva et al., 2011; Liñán et al., 2011). The TPB postulates that intentions to pursue certain behavior are impacted and shaped by attitudes, subjective norms, and perceived behavioral control (Krueger Jr. et al., 2000). The attitude towards entrepreneurship represents the attractiveness or personal valuation about being an entrepreneur, while subjective norms refer to the perceived social pressures from family or friends to carry out an entrepreneurial activity (Ajzen, 1991; Ajzen, 2002). The perceived behavioral control measures the perceived easiness and ability of becoming a founder and successfully managing an entrepreneurial venture (McGee et al., 2009). These three factors of the entrepreneurial intention are conditioned by the social, cultural, political, economic context as well as by the university and family environment.

In addition, the survey adopts well-developed cross-disciplinary concepts such as the environmental dynamism (Achrol & Stern, 1988), organizational ambidexterity (Gibson &, Birkinshaw, 2004), multidimensional locus of control (Levenson, 1973) and others.

2. THE BELARUSIAN GUESSS PROJECT

2.1 Belarusian participants

Deliberately, the approach to collecting responses had not been changed since 2016. In order to invite universities for participation and distribute a link to the online questionnaire among their students, official letters were sent to the Ministry of Education of the Republic of Belarus and to heads of universities.

In December 2018 – February 2019, 504 responses from 14 Belarusian universities were collected. After deep exploration of the responses by the Belarusian team, the final sample for this report included 465 completed/valid observations (Table 1) received from students who are younger than 30 years old – born after 1988. For a more accurate analysis, responses of older participants and those who did not indicate a year of birth were skipped.

Considering that total number of students at the tertiary level in the 2018-2019 academic year was about 268 thousand (Belstat, 2019), the recommended sample size was 384[3].

[3] With the margin of error = 5%, confidence level = 95%, the response distribution = 50%

Table 1. Belarusian participants

#	University	Amount of responses	Per cent in the sample
1	Belarusian State Technological University	3	0.7
2	Belarusian State University	170	36.6
3	Belarusian State University of Informatics and Radio electronics	55	11.8
4	Belarusian State University of Transport	12	2.6
5	Belarusian State Economic University	4	0.9
6	Belarusian National Technical University	49	10.5
7	Belarusian Trade and Economics University of Consumer Cooperatives	97	20.9
8	Brest State Technical University	2	0.4
9	Vitebsk State Technological University	12	2.6
10	Grodno State University named after Y. Kupala	52	11.2
11	Mogiliov State University named after A. Kuleshov	1	0.2
12	Polotsk State University	1	0.2
13	Baranovichi State University	2	0.4
14	Francisk Skorina Gomel State University	1	0.2
15	Other	4	0.86
Total		**465**	**100**

It is relevant to mention that the Ministry of Education of Belarus started the Experimental project on implementation of the "University 3.0" model[4] in 2018. Within the framework of this project, the University 3.0 means the development of research, innovation and entrepreneurial infrastructure in universities for creation of innovative products and commercialization of intellectual activities. Seven leading universities (4 – classical, 2 – technical, 1 – economic) were selected to participate in the experiment (Table 2).

The GUESSS was regarded as one of the tools for project progress evaluation. Although it is precociously to assess outputs of this project, it is reasonable to evaluate prerequisites for this policy measure through the lens of the GUESSS methodology. In view of that, we provide basic comparisons of universities that do

[4] For additional information see http://nihe.bsu.by/index.php/2opisanie-eksperimentalnogo-proekta

participate in the project and universities left beyond the scope of the Experimental project (Table 2).

Table 2. Belarusian universities

#	University	Amount of responses	Per cent in the sample
Participating in the Experimental project			
1	Belarusian State Technological University	3	0.7
2	Belarusian State University	170	36.9
3	Belarusian State University of Informatics and Radio electronics	55	11.9
4	Belarusian State Economic University	4	0.9
5	Belarusian National Technical University	49	10.6
6	Grodno State University named after Y. Kupala	52	11.3
Subtotal		**333**	**72.2**
Not participating in the Experimental project			
1	Belarusian State University of Transport	12	2.6
2	Belarusian Trade and Economics University of Consumer Cooperatives	97	21.0
3	Brest State Technical University	2	0.4
4	Vitebsk State Technological University	12	2.6
5	Mogiliov State University named after A. Kuleshov	1	0.2
6	Polotsk State University	1	0.2
7	Baranovichi State University	2	0.4
8	Francisk Skorina Gomel State University	1	0.2
Subtotal		**128**	**27.8**
Total		**465**	**100**

2.2 Profile of the Belarusian respondents

In 2018, the majority of students (97.9%) were born after 1993. With respect to the gender, more female students (68.3%) than male students (31.7%) participated in the Belarusian GUESSS survey. In comparison with the international

GUESSS survey (55%), the Belarusian sample is overpopulated by female students[5]. Most of the respondents (94.5%) are Belarusian (Figure 1).

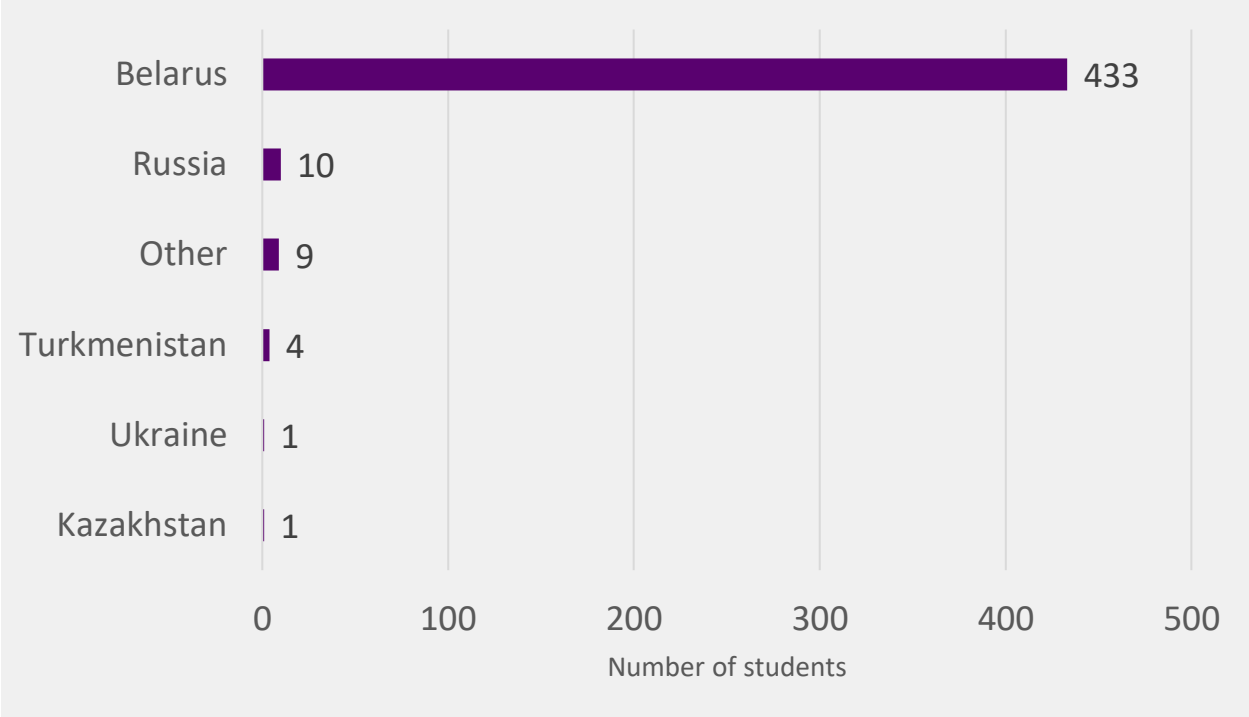


Figure 1. Nationality of students

The majority of respondents in Belarus were undergraduate students (90.1%). In the international sample, the number of students enrolled in master and PhD programs was slightly higher (Figure 2). In the Belarusian sample, 3.01% were international exchange students.

[5] According to the Statistical Committee of Belarus, in the 2018-2019 Academic year, female accounted for about 53.1% of university students.

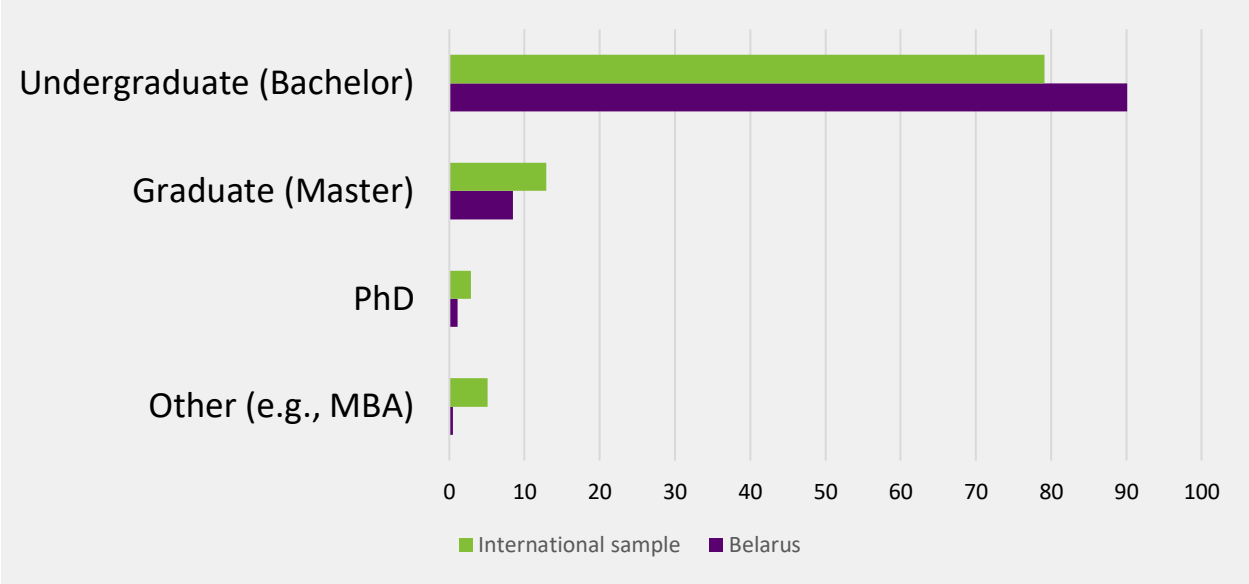


Figure 2. Level of study

Figure 3 shows fields of study that is proved to be one of the key factors for career choice intentions and, in particular, for entrepreneurial intentions. In the Belarusian sample, the respondents were involved in various fields. The highest portion of students was studying Economics (37.7%) followed by 30.8% studying Business/Management. The portion of economics major appeared much higher in Belarus than in the international sample (5.4%). To some extent, it can be explained by blurred boundaries between Economics and Business/Management fields in the Belarusian context. According to the Belarusian classification, both of these fields belong to one group of fields – "Communication, Law, Economics, Management, Economics and organization of manufacturing" that accounts for 30.8% in the student population. This field is overpopulated by female students – 67.4%.

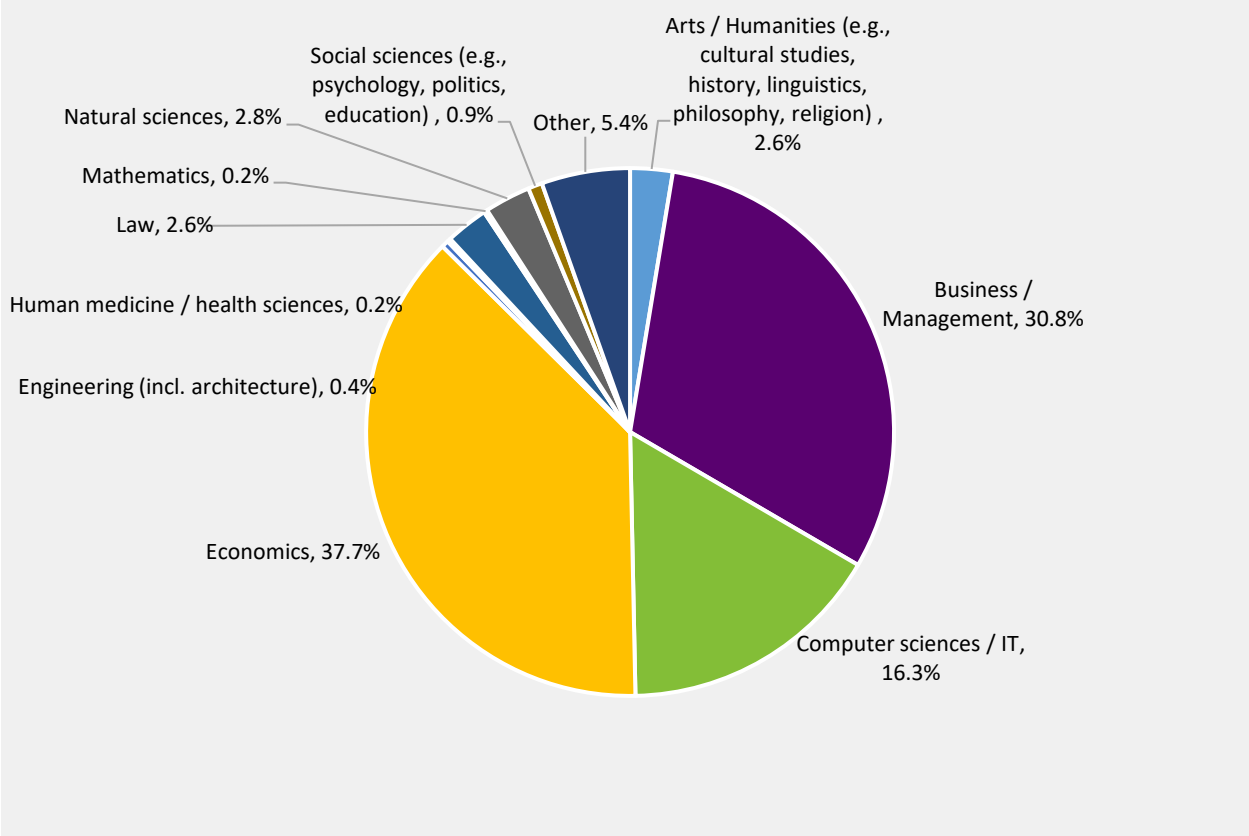


Figure 3. Study field

3. ENTREPRENEURIAL INTENTIONS

3.1 Belarusian students' career choice intentions

Table 3 shows changes in the career choice intentions of students, comparing their intentions immediately after graduation with intentions five years after completion of study. Right after study, the vast majority of students prefer to work as employees at enterprises (68.4%). More concretely, the 17.4% of students prefer to work in small-sized businesses, 30.1% in medium-sized businesses and 20.9% in large-sized businesses. The key finding driven from these data is that a relatively low percent of students (7.3%) intend to start up a business as soon as they graduate. This percentage appeared lower than the world average in 2018 (9.0%). Five years after completion of studies, 47.5% of all participants' intent to be entrepreneurs (the world average is 34.7%). This finding is a remarkable change in intentions and confirms the necessity to embed development of entrepreneurial skills/competences within academic curricula of different study fields.

Table 3. Detailed career choice intention

Employment Intention	After studies		5 years later	
	Number	%	Number	%
an employee in a small business (1-49 employees)	81	17.4	14	3.0
an employee in a medium-sized business (50-249 employees)	140	30.1	27	5.8
an employee in a large business (250 or more employees)	97	20.9	87	18.7
an employee in a non-profit organization	12	2.6	4	0.9
an employee in academia (academic career path)	12	2.6	11	2.4
an employee in public service	25	5.4	21	4.5
a founder (entrepreneur) working in my own business	34	7.3	221	47.5
a successor in my parents' / family's business	14	3.0	10	2.2
a successor in a business currently not controlled by my family	7	1.5	20	4.3
Other / do not know yet	43	9.3	50	10.8
Total	465	100	465	100

If we compare career choice intentions of Belarusian students with the international sample, we can observe some noteworthy differences. Thus, Belarus takes the 28th position in the world in terms of the percentage of intentional founders right after studies and the 16th position – five years after studies. This implies that before starting own business students intend to gain relevant work experience and competencies that cannot be obtained during studies by different reasons such as the absence of well-structured activity-based entrepreneurship courses, effective entrepreneurship support centers or incubators (Marozau et al., 2019).

The career in academia is the least attractive employment option for young Belarusians (2.6% – right after studies and 2.4% – five years after studies), while, in the world, this path is attractive for 9.2% of students right after studies and 9.0% – five years after studies. To some extent, this may be explained by low salaries in the sector and a perceived university environment which is not very supportive to self-actualization (Marozau et al., 2019).

Over time, the percentage of Belarusian students who would like to be an employee in public service has increased from 0.7% – right after studies and five years after studies in 2016 to 5.4% – right after studies and 4.5% – five years after. This is very likely an outcome of the state policy on increasing attractiveness of the public service as a career path.

The share of intentional founders among male students immediately after studies is almost two times higher than among female students (10.2% – male vs. 6.0% – female) (Table 4). After five years, the career intentions for both gender change. It is noteworthy that more female students than male students intend to become founders (48.6% – female vs. 44.9% – male). With respect to employment in

the private sector, preferences are given to medium-sized enterprises immediately after graduation (31.9% – of female and 26.5% – of male students). Again, this can be justified by students' willingness to understand business processes of organizations and develop competences before starting own business. Notwithstanding better opportunities to advance in small businesses, after five years, young Belarusians of both genders prefer employment in large businesses (18.3% – female and 19.7% – male students.

Table 4. Detailed career choice intentions by gender

Employment Intention	After studies		5 years later	
	Female	Male	Female	Male
an employee in a small business (1-49 employees)	16.1	20.4	3.5	2.0
an employee in a medium-sized business (50-249 employees)	31.9	26.5	4.7	8.2
an employee in a large business (250 or more employees)	20.8	20.4	18.3	19.7
an employee in a non-profit organization	3.2	1.4	1.0	0.7
an employee in Academia (academic career path)	3.2	1.4	2.8	1.4
an employee in public service	5.4	5.4	3.8	6.1
a founder (entrepreneur) working in my own business	6.0	10.2	48.6	44.9
a successor in my parents' / family's business	3.2	2.7	1.6	3.4
a successor in a business currently not controlled by my family	1.6	1.4	5.1	2.7
Other / do not know yet	8.8	10.2	10.7	10.9
Total	100.0	100.0	100.0	100.0

In addition, we compared career choice intentions of students from universities that participate in the Experimental project and students from other universities (Table 5). No substantial difference was identified between students representing these two groups of universities.

Table 5. Detailed career choice intentions by groups of universities

Employment Intention	After studies		5 years later	
	Experimental project	-	Experimental project	-
an employee in a small business (1-49 employees)	19.8	10.2	3.9	0.8
an employee in a medium-sized business (50-249 employees)	30.9	28.9	6.9	3.1
an employee in a large business (250 or more employees)	22.2	18.0	19.2	16.4
an employee in a non-profit organization	2.1	3.9	0.9	0.8
an employee in Academia (academic career path)	2.4	1.6	2.4	2.3
an employee in public service	4.8	7.0	2.1	10.2
a founder (entrepreneur) working in my own business	**7.2**	**7.8**	**48.3**	**46.1**
a successor in my parents' / family's business	3.0	3.1	1.8	3.1
a successor in a business currently not controlled by my family	1.5	1.6	3.9	5.5
Other / do not know yet	6.0	18.0	10.5	11.7
Total	100	100	100	100

Also, we performed the Pearson Chi-Square tests that demonstrated no statistically significant association between gender and intention to be a founder as well as between studying at a university participating in the Experimental project and intention to be a founder.

The field of study is a decisive factor for the general career choice intentions and entrepreneurial intentions. Figure 4 shows career intentions right after graduation across different fields of study with more than 5 respondents. The highest shares of students who want to be a founder of own firms are observed among Business and Management students (9.9%). As for other fields, the higher levels of interest in founding a business were demonstrated by respondents studying Arts and Humanities (8.3%), Economics (8.1%), and other fields (12.0%). Surprisingly, only 1.3% of Computer sciences and IT students and none of Natural sciences students plan to be founders immediately after graduation.

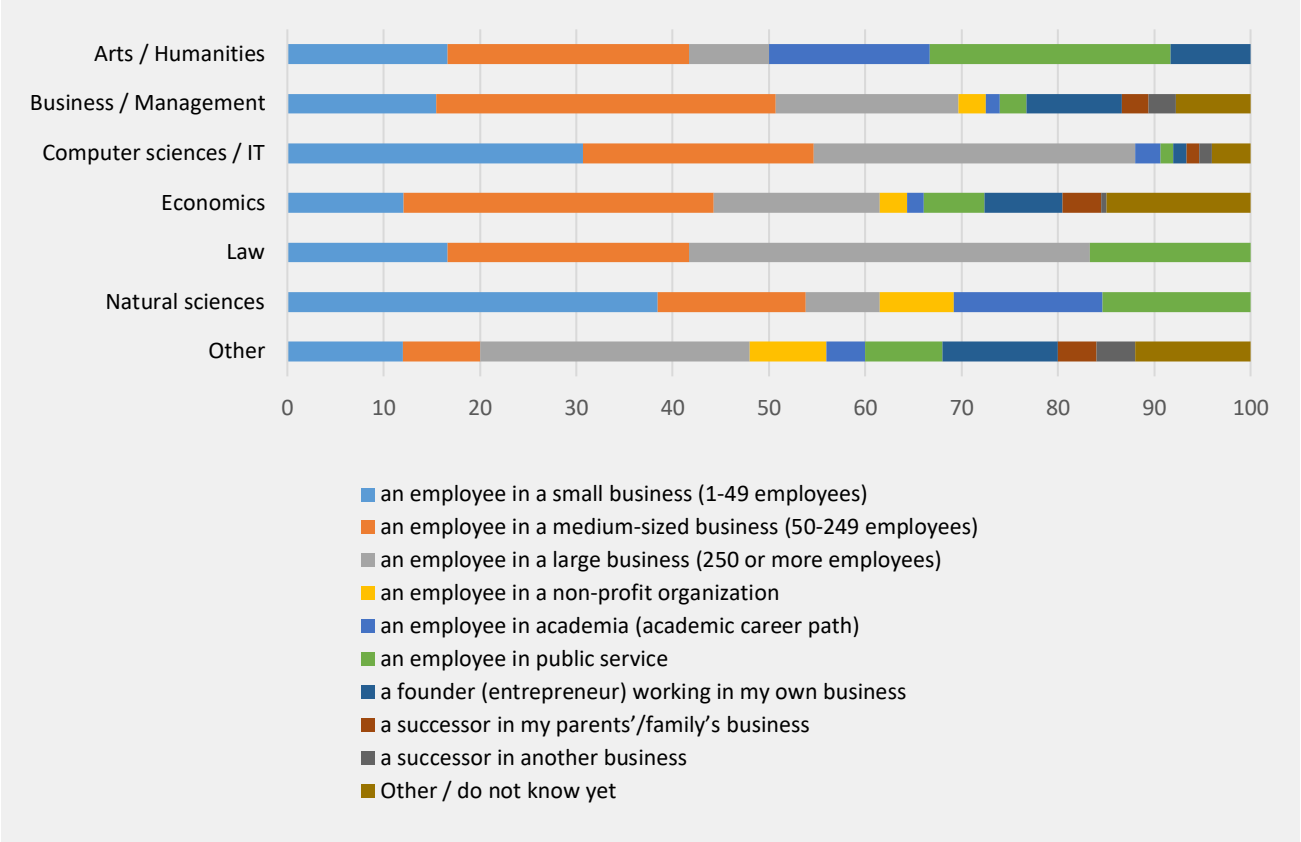


Figure 4. Career choice by study field directly after studies

As it was mentioned before, the level of entrepreneurial intentions is substantially higher five years after graduation. This is true for students representing different fields (Figure 5). Thus, 55.6% of Business and Management students intend to run a business. Slightly behind them are students who study Economics (49.4%). Interestingly, 64.0% of students who indicated "Other" as their fields of study want to become founders in five years after graduation.

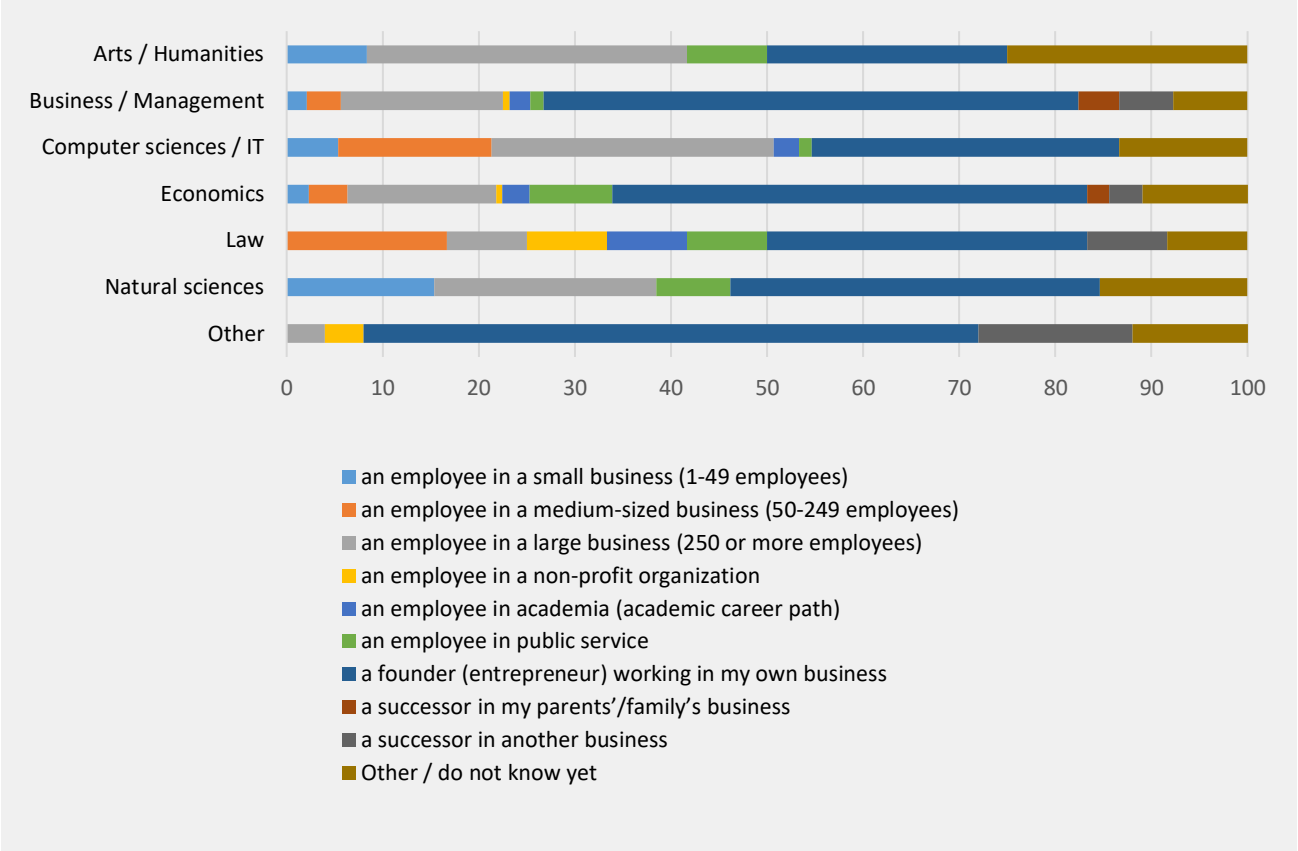
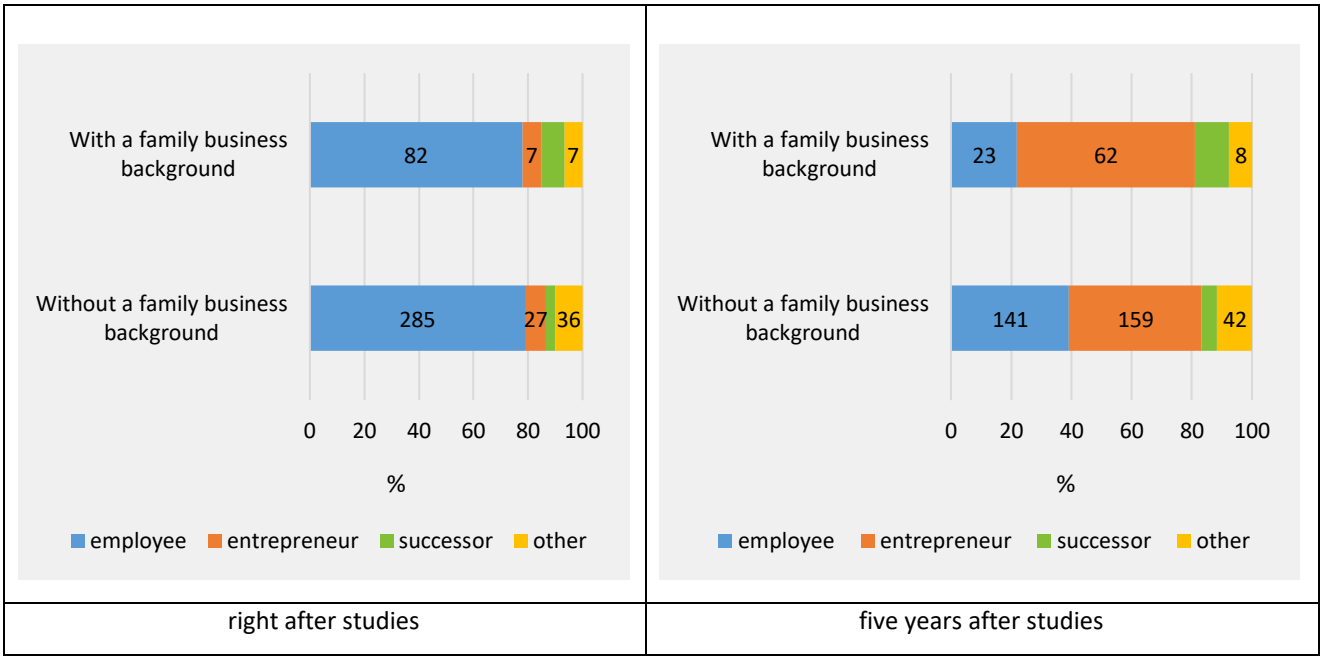


Figure 5. Career choice groups by study field 5 years after studies

3.2 Family business background

The term 'parents' business background' refers to a state in which one parent (or both) was self-employed or had a majority stake in a business at the time when the survey was conducted. The survey results showed that the parents' business background does not promote an intention to be a founder immediately after studies. However, five years after studies, there are almost 60% of intentional founders (not successors) among students from 'entrepreneurial' families vs. 44% – among 'non-entrepreneurial' families (Figure 6). This means that in general Belarusian families have a positive experience in doing own business.



right after studies | five years after studies

Figure 6. Career aspirations by family business background

3.2 Entrepreneurial intentions

We estimated the extent to which students intend to start their own business in the future – the entrepreneurial intention index – an average of six items (Figure 7) with responses ranging from 1 (strongly disagree) to 7 (strongly agree).

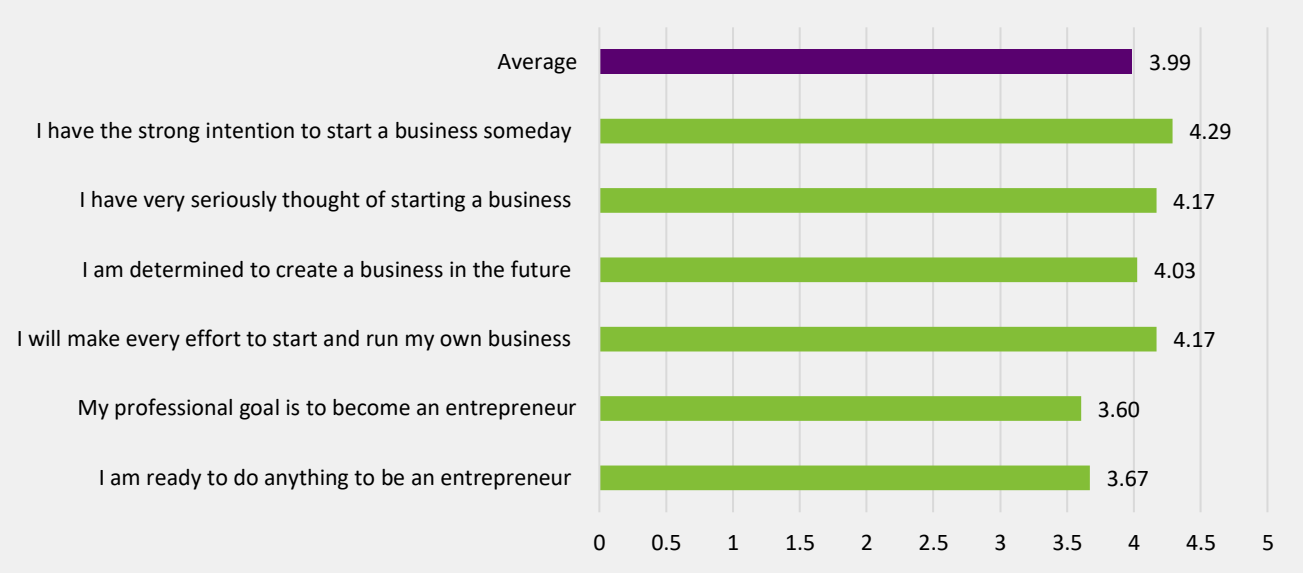


Figure 7. Entrepreneurial intention index

Surprisingly, a higher level of entrepreneurial intentions is observed among female students (Figure 8). This corresponds to the shares of intentional founders among female and male students five years after studies – 48.6% and 44.9% respectively.

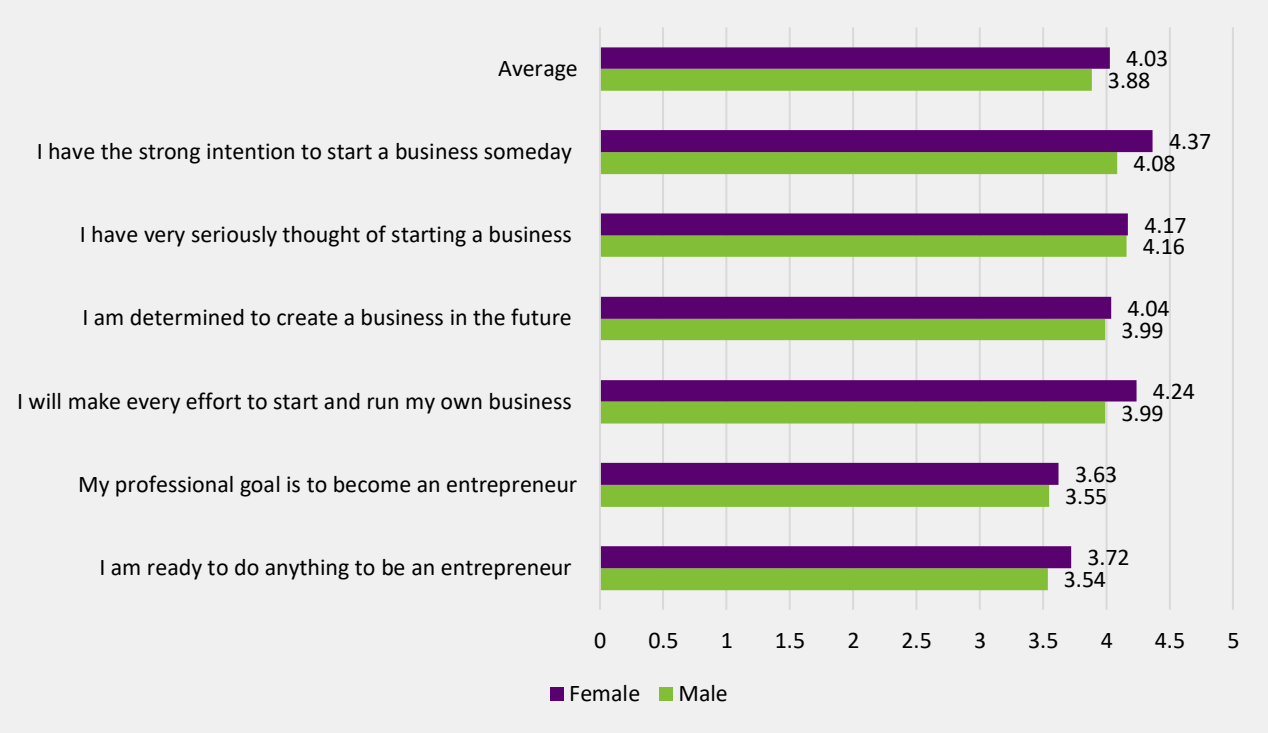


Figure 8. Entrepreneurial intention by gender

4. DRIVERS OF ENTREPRENEURIAL INTENTIONS

4.1 University context

The entrepreneurial environment at universities was assessed by asking students to estimate levels of their agreement with three statements using a Likert scale from 1 (not at all agree) to 7 (very much agree). The means are provided in Figure 9.

In general, the perceived level an entrepreneurial environment – an average of the three values – is slightly above the neutral point of the 1–7 scale but below the global average of 4.4 (the 35th position in the world). In addition, we observe a lower level in comparison to that obtained in 2016 – 4.10 vs. 4.33.

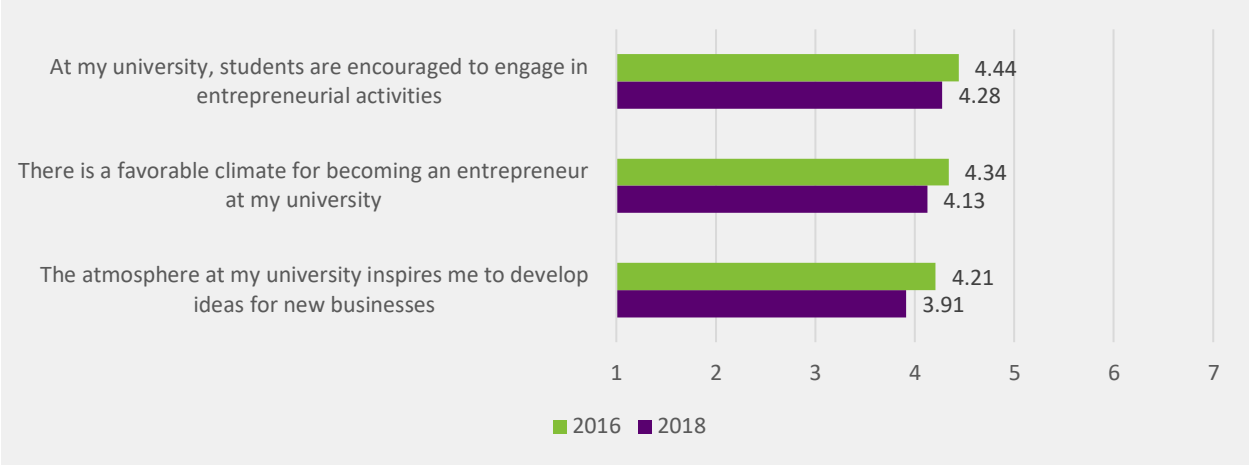


Figure 9. University entrepreneurial environment

Another set of questions was targeted at assessment of perceived results of entrepreneurship-related education proxied by five statements on the courses and offerings a student attended. Similarly to the entrepreneurial environment, we observe the same trend while considering entrepreneurial education (Figure 10). As a result, Belarus takes the 38th position among 54 counties in terms of entrepreneurship-related education.

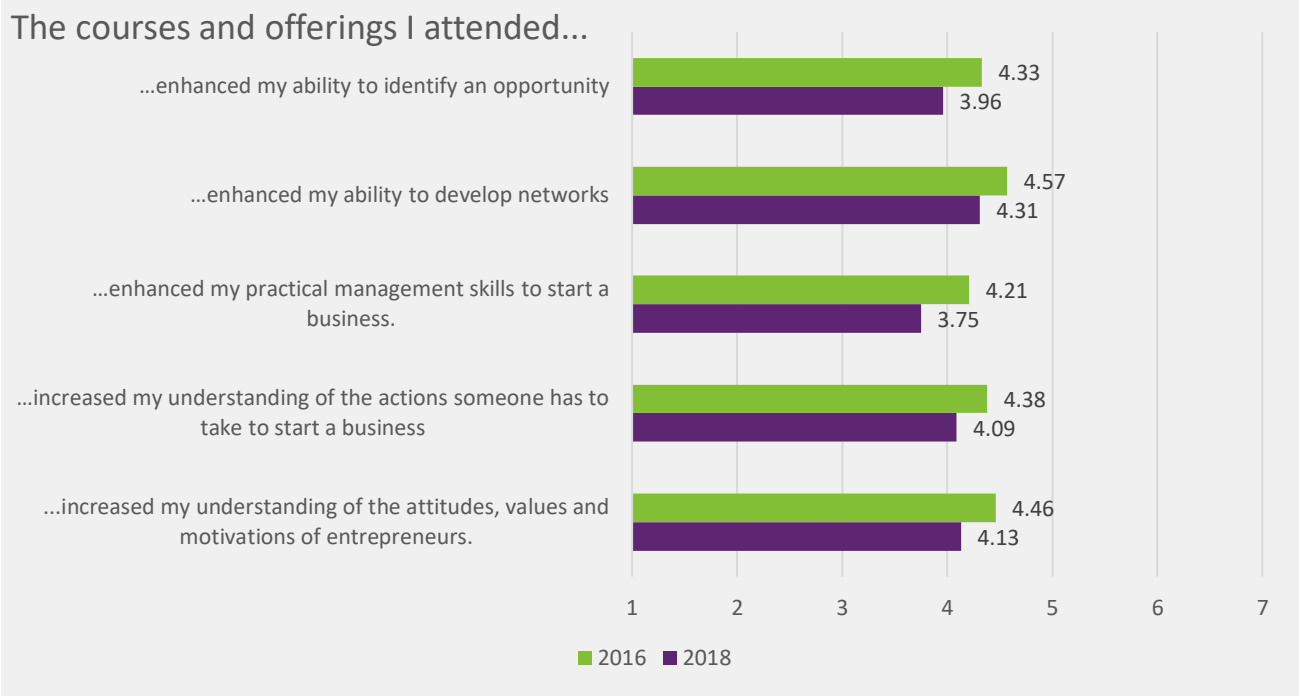


Figure 10. University entrepreneurial education

These results appear even more interesting when we take into account that in 2018 more students were exposed to entrepreneurship-related education than two years before. In our sample, 47.1% had not attended a course on entrepreneurship (53.8% – in 2016; 51.9% – in the global sample in 2018). At least one entrepreneurship course as elective had been attended by 16.6% of students. As a compulsory part of studies 26.7% of students had attended at least one entrepreneurship course, while 4.3% indicated that they were enrolled in entrepreneurship programs.

As it was expected, both the entrepreneurial environment and entrepreneurial education appeared positively associated with the entrepreneurial intention index. The coefficients are 0.327 and 0.329 at the significance level of 0.01. This confirms previous findings that the university context is an important driver of the students' entrepreneurial intentions and potential entrepreneurial actions.

In addition, we compared the context (environment and education) of Belarusian universities that participate in the Experimental project and those left beyond of its scope (Figure 11).

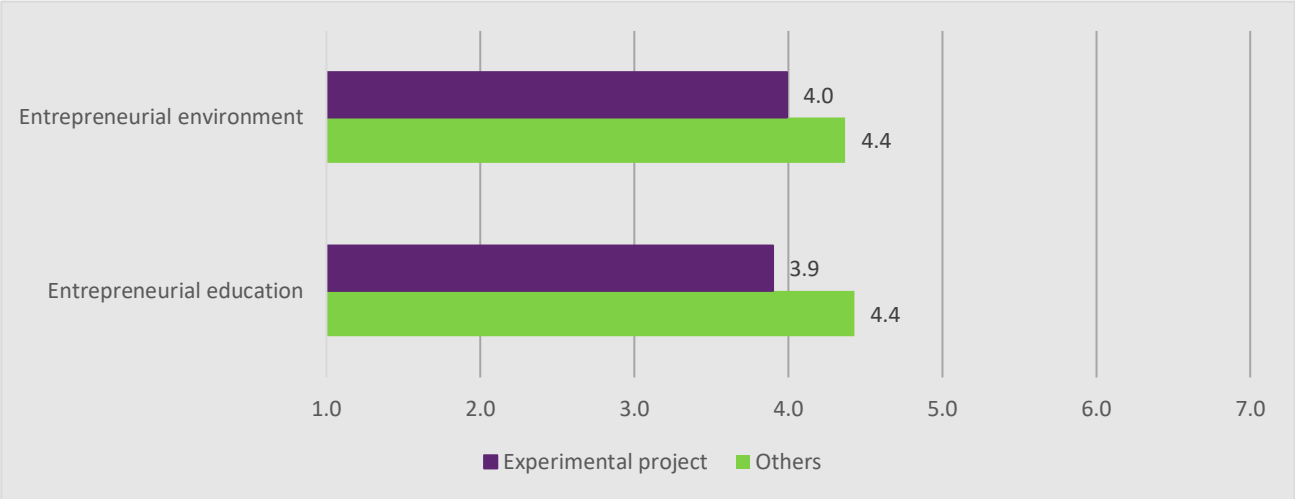


Figure 11. University context by participation in the Experimental project

4.2 Attitudes towards entrepreneurship

According to the GUESSS, attitude towards entrepreneurship among students was estimated by the extent to which they agreed with a set of statements: 1. 'Being an entrepreneur implies more advantages than disadvantages to me'; 2. 'A career as entrepreneur is attractive for me'; 3. 'If I had the opportunity and resources, I would become an entrepreneur'; 4. 'Being an entrepreneur would entail great satisfactions for me'; 5. 'Among various options. I would rather become an entrepreneur' (Figure 12). A seven-point Likert scale was used (1 — strongly disagree to 7 — strongly agree).

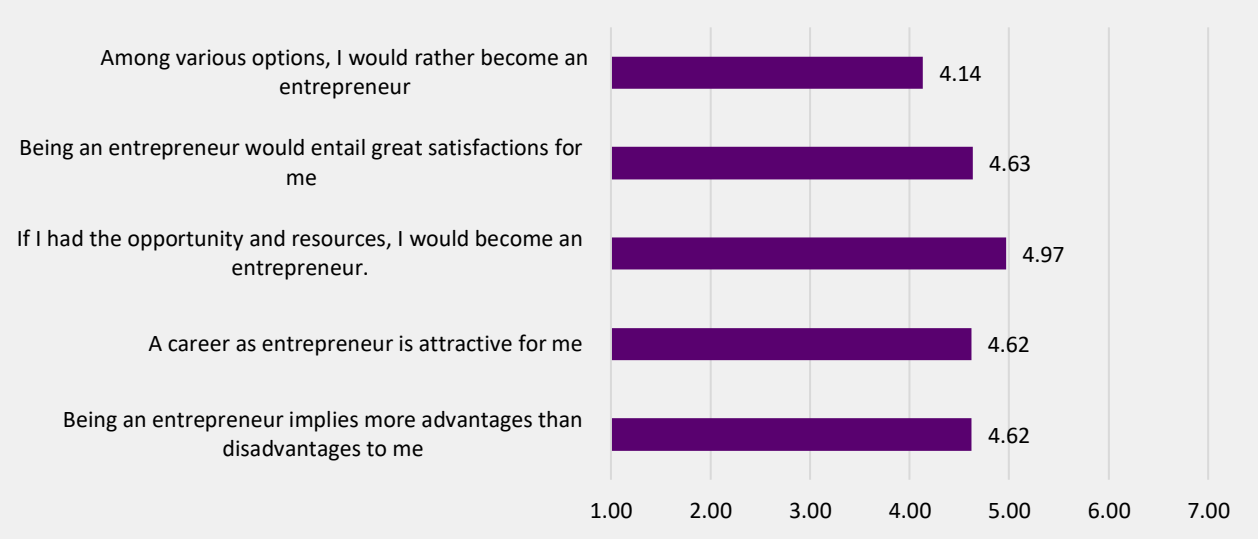


Figure 12. Attitudes towards entrepreneurship

4.3 Perceived behavioral control

Following the methodology of the GUESSS, we measured the perceived behavioral control or self-efficacy by asking students to evaluate their level of entrepreneurship-related competences: 1) identifying new business opportunities, 2) creating new products and services, 3) managing innovation within a business, 4) being a leader and communicator, 5) building up a professional network, 6) commercializing a new idea or development, 7) successfully managing a business. The variable was measured using a Likert scale from 1 — strongly disagree to 7 — strongly agree (Figure 13). In average, the Belarusian students evaluate their level of entrepreneurial competences above average, with the highest average score to "Being a leader and communicator".

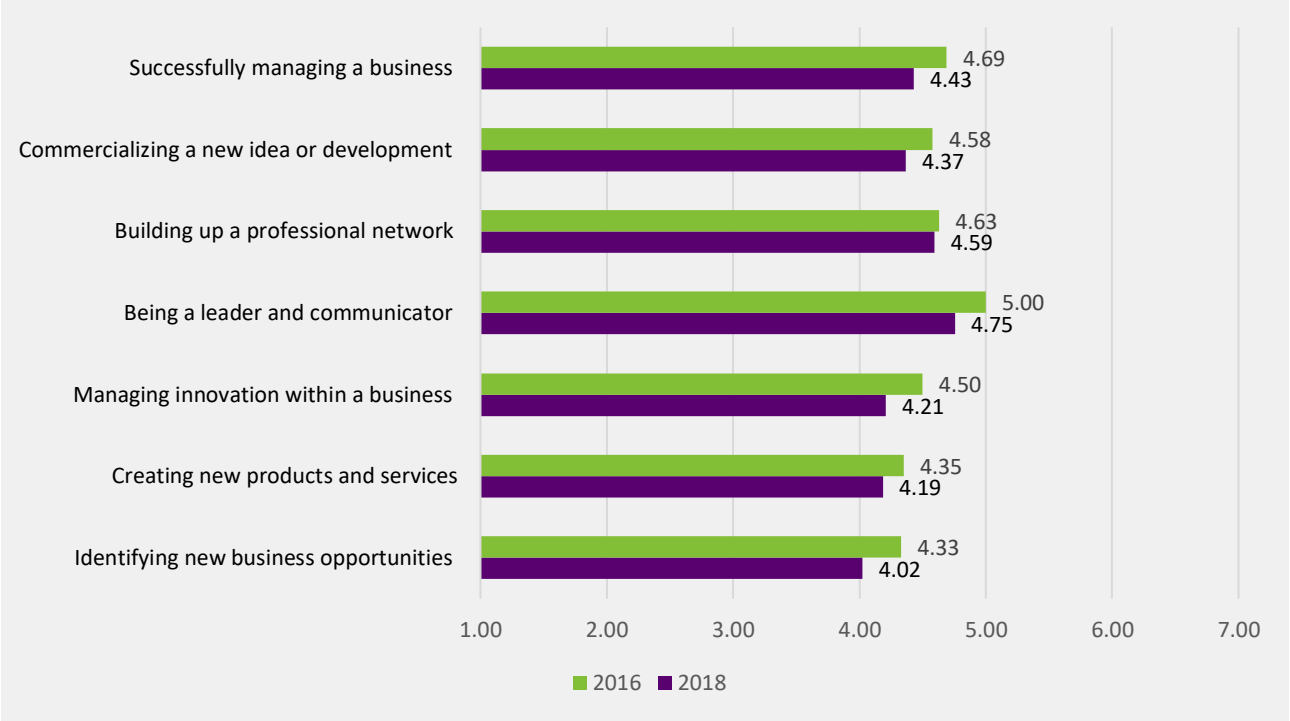


Figure 13. Perceived level of entrepreneurial competences

Additionally, we tested for differences between male and female students in terms of the entrepreneurial self-efficacy. The means for the sub-samples appeared comparable 4.21 vs. 4.43 respectively.

Figure 14 demonstrates differences between Belarusian students who had not attended entrepreneurship-related courses and those who attended at least one course in terms of the perceived level of entrepreneurial competences. The Likert scale from 1 to 7 was employed. Attending at least one entrepreneurship course increases the perceived level of all selected characteristics. However these changes are lower than one can expect illustrating moderate contribution to the level of entrepreneurial competences.

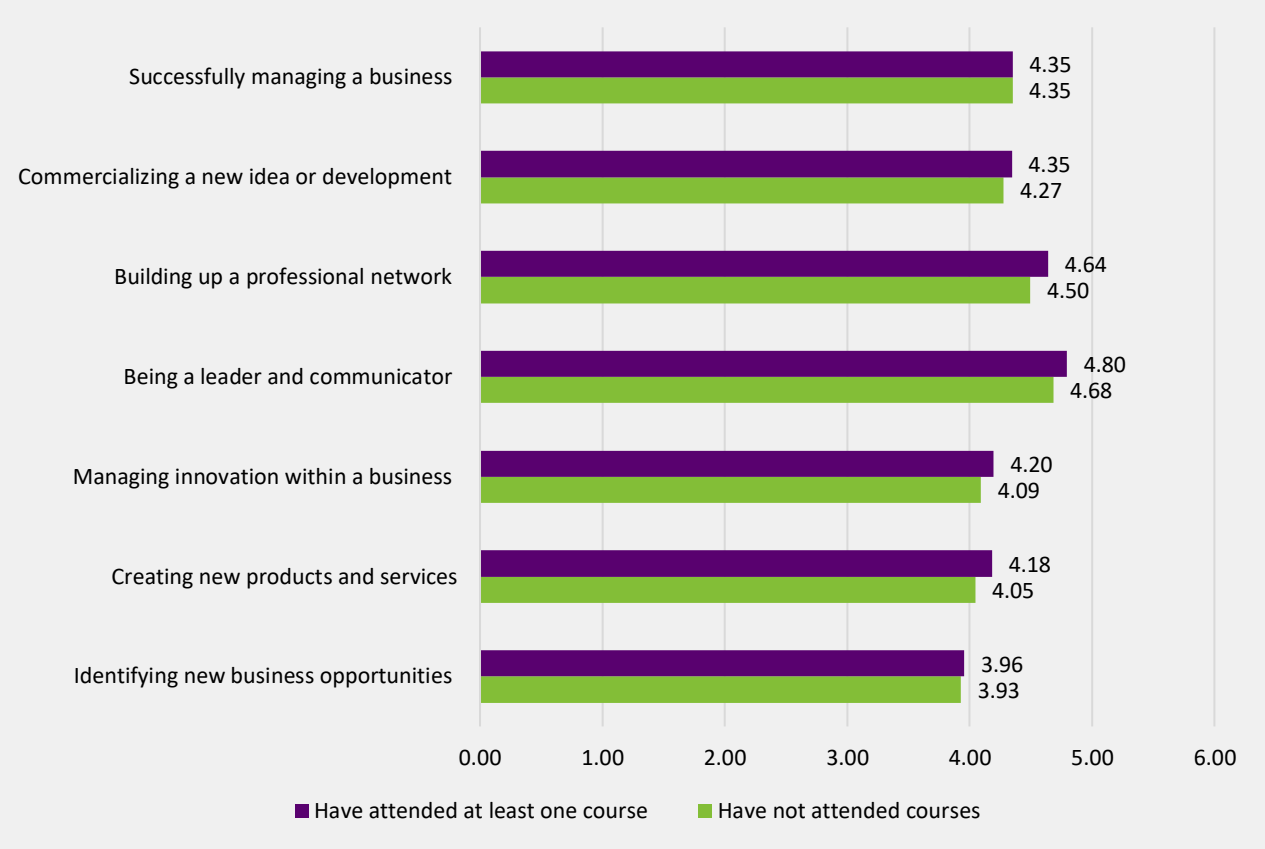


Figure 14. Differences in a perceived level of entrepreneurial competences

4.4 Subjective norms

To measure subjective norms, we asked students how different people in their environment would react if students became an entrepreneur. Three groups of people were fellow students, friends, and close family members (Liñan & Chen, 2009). Using a seven-point Likert scale, reaction was ranged from 1 (very negatively) to 7 (very positively). Figure 15 demonstrates that Belarussian students believe that people they interact with would react very positively, if students become entrepreneurs.

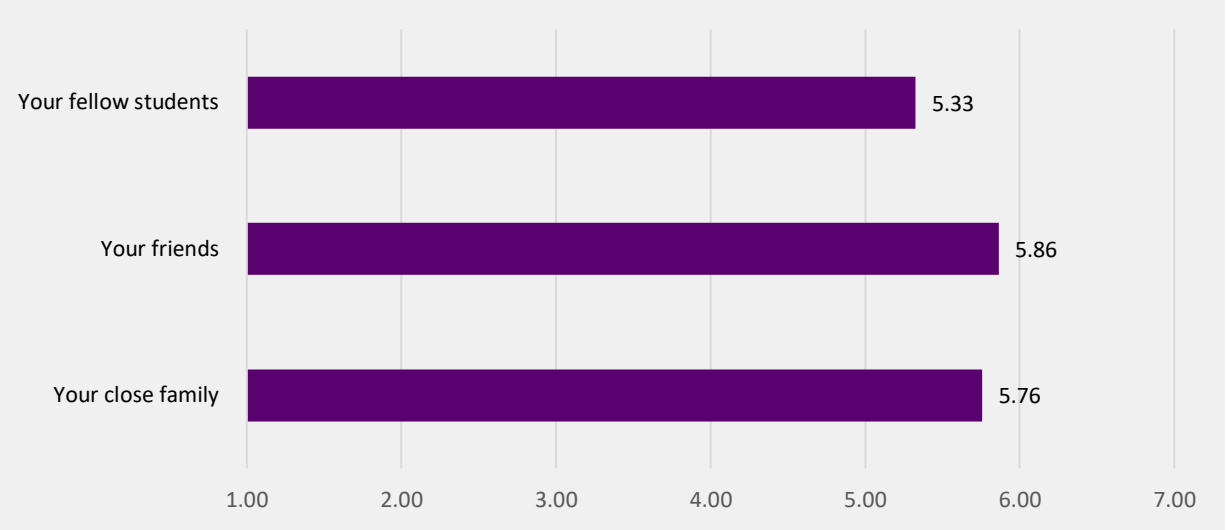


Figure 15. Subjective norms

It is worth mentioning that 74.4% parents were not entrepreneurs (Table 6), while they would positively evaluate if their children became entrepreneurs.

Table 6. Self-employed parents

Self-employed parents	Number	%
None	346	74.4
Yes, father	73	15.7
Yes, mother	15	3.2
Yes, both	31	6.7
Total	**465**	**100**

4.5 Power distance

The power distance represents the degree to which the less powerful members of organizations accept and expect that power is distributed unevenly (Hofstede et al., 1990). The association between the Hofstede's dimension of the power distance and entrepreneurship in a country is widely accepted but is not straightforward. Thus, when power distance is high, nations are expected to be

more entrepreneurial because people seek greater independence and ways of obtaining economic gains (Simón-Moya et al., 2014).

Figure 16 depicts the level of the power distance by countries based on the three statements with two opposing answers and the seven-point Likert scale on the society students live.

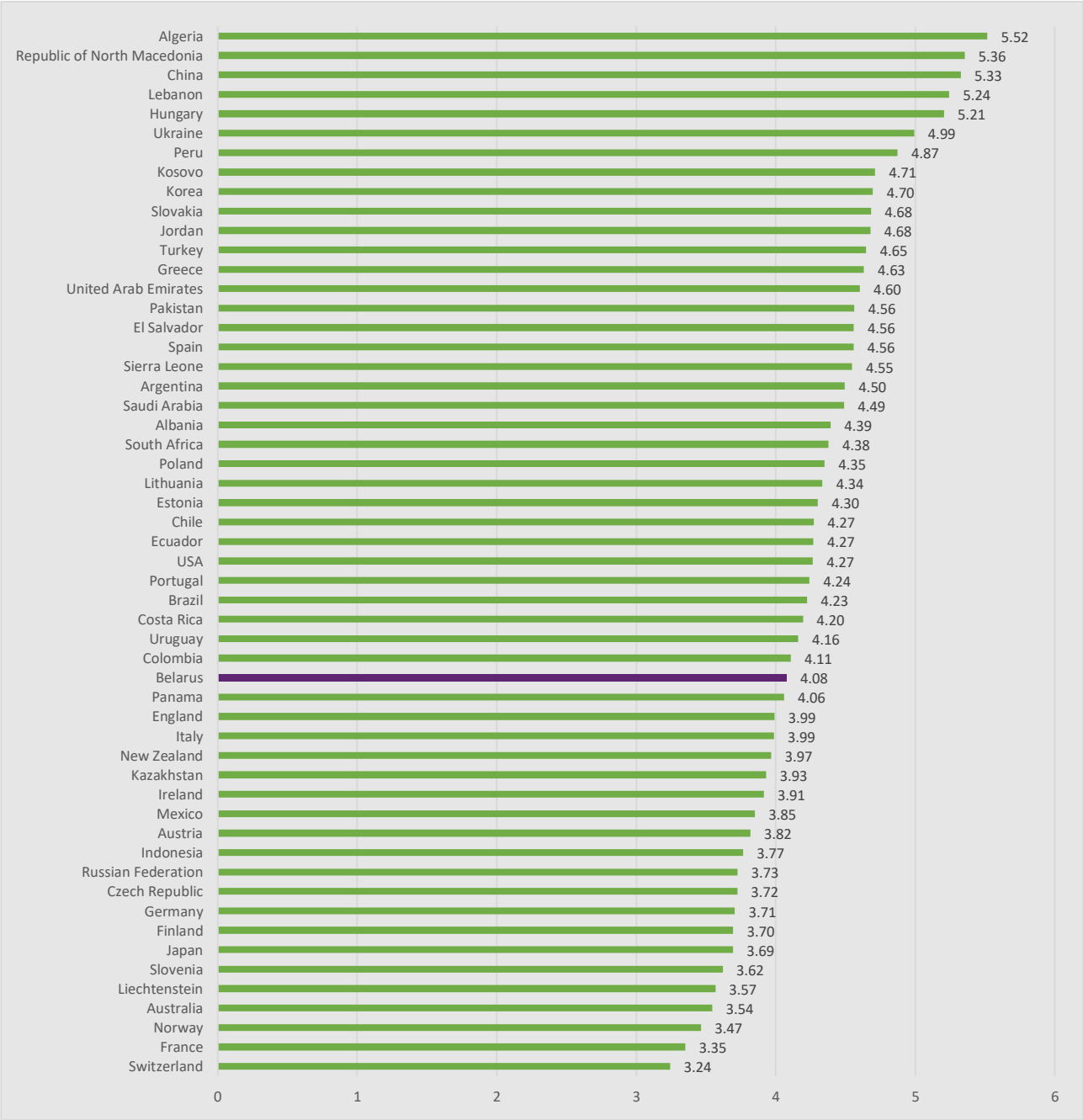


Figure 16. Power distance

Although we observe substantial difference in positions of the nations in comparison to the results provided by the Hofstede Insights[6], we find Belarus in the middle of the list. Surprisingly, the level of the power distance has dropped substantially from GUESSS 2016 – from 5.17 to 4.08 on the seven-point Likert scale.

Based on the GUESSS sample, we identified low correlation between the power distance and the percentage of nascent entrepreneurs (correlation coefficient = 0.082, significant at the 0.01 level) and active entrepreneurs (correlation coefficient = 0.075, significant at the 0.01 level).

5. ENTREPRENEURIAL ACTIVITIES

5.1 Entrepreneurs among students

Comparatively high share of Belarusian students is engaged in entrepreneurial activities. Thus, 22.2% reported that they were trying to start a business or to become self-employed. From the gender perspective, 17.0% of female students are starting their business, while there are 32.7% of nascent entrepreneurs among male students. These shares are comparable with those obtained in 2016.

4.3% of Belarusian students were already running their own business or were self-employed at the moment of the survey. This share is lower than the global average – 11.2% – that has increased from 8.8% in 2016. Moreover, the percentage of active entrepreneurs has dropped from 7% in 2016. This may signify that a way from nascent to active entrepreneurs has become more complicated in Belarus. Again, we observe differences between female (3.2%) and male students (6.8%).

[6] For further information consult https://www.hofstede-insights.com/

To sum up, gender differences among intentional, nascent, and active entrepreneurs are provided in Figure 17.

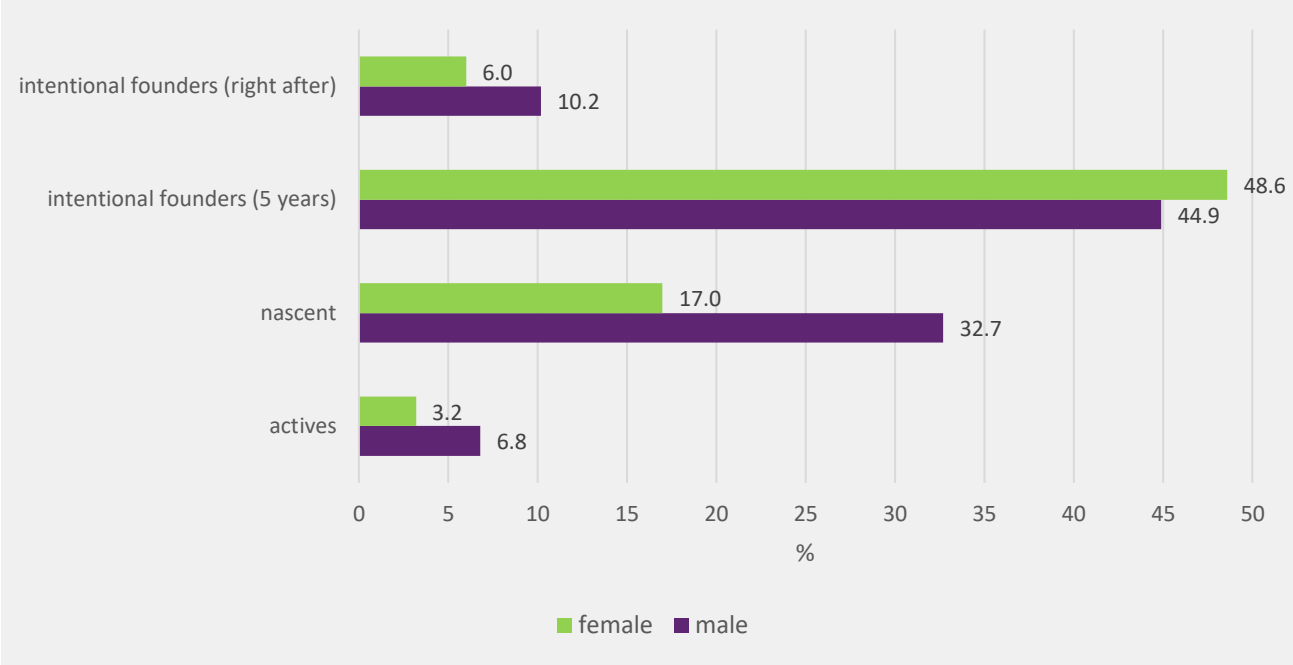


Figure 17. Gender differences among intentional, nascent, and active entrepreneurs

5.2 Operating sector

Both groups of students who were already running a business and who were planning to start a business were asked about a sector that their businesses were operating or would operate in. Sixteen active businesses were distributed among eight different sectors (Figure 18).

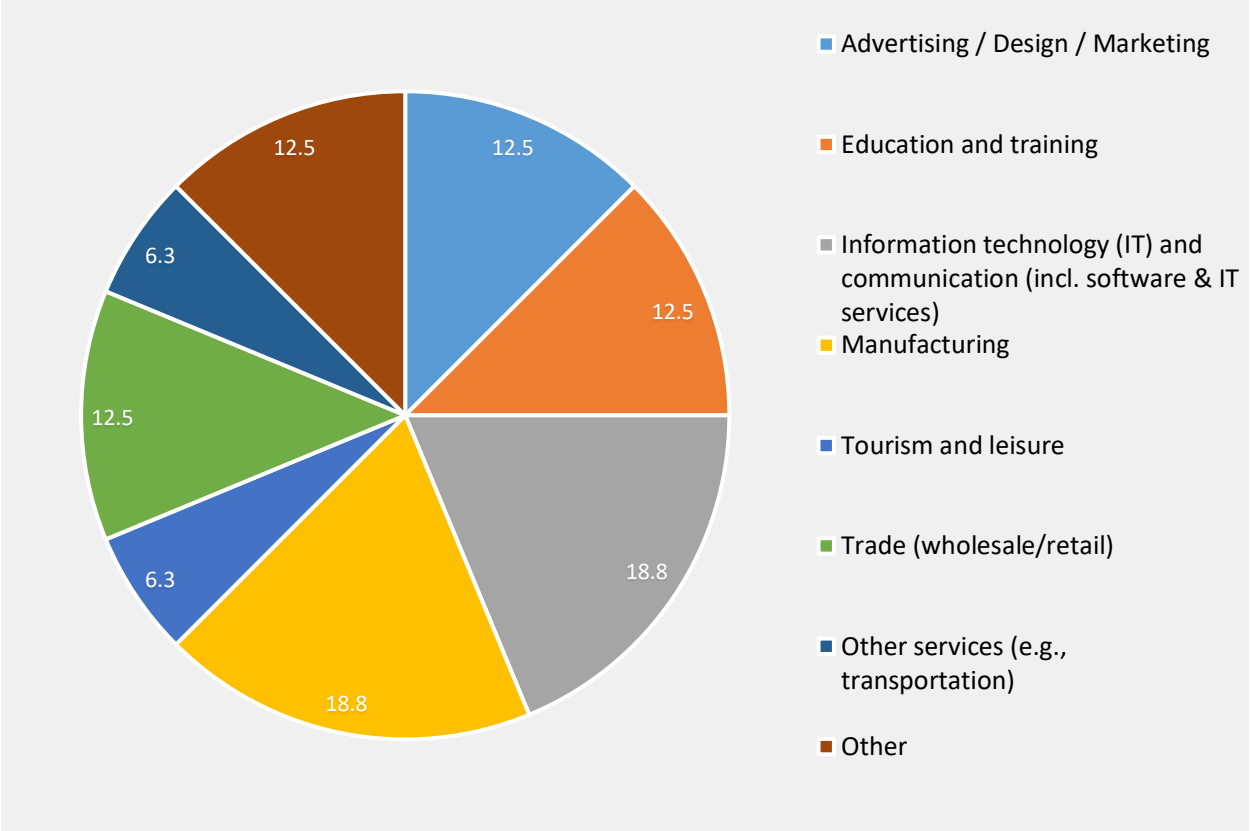


Figure 18. Sectors where students' businesses are operating

With respect to businesses that were being started by students (Figure 19), 20.7% of nascent entrepreneurs expected to operate in Trade followed by Advertising/Design/Marketing.

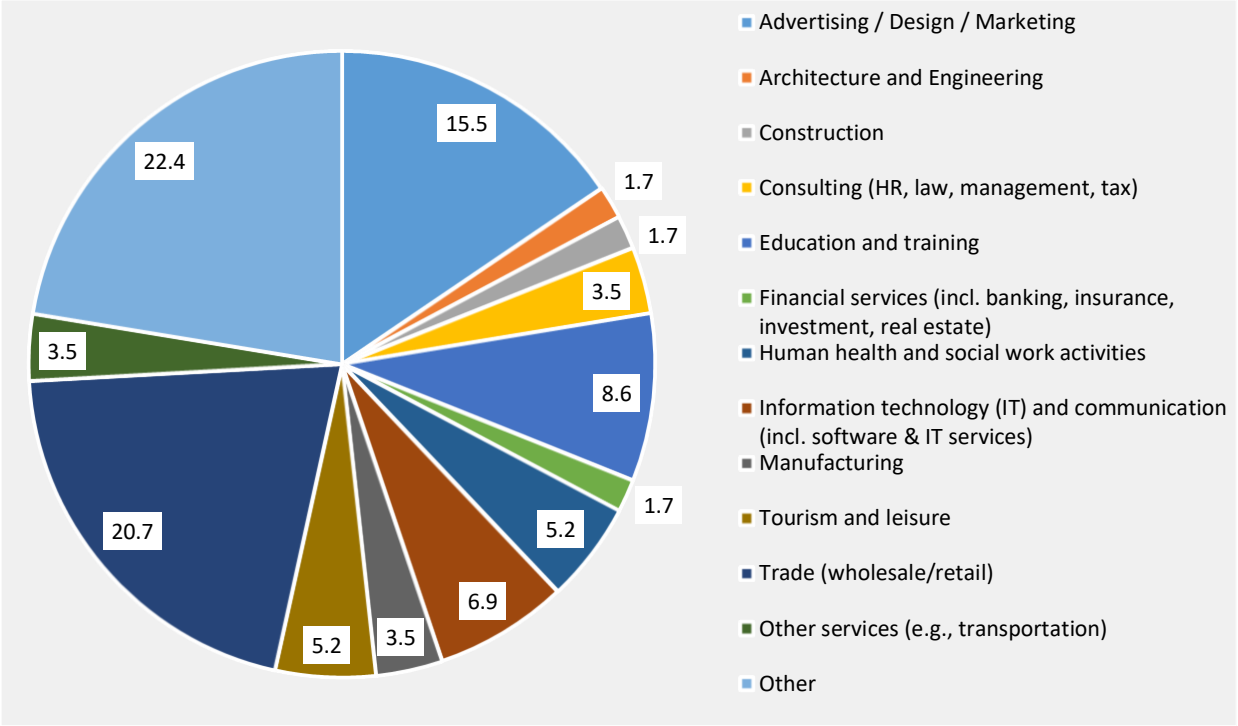


Figure 19. Sectors where students are starting businesses

An important conclusion that can be drawn from these two figures is that, although Trade is still a quite attractive business sector, it does not appear easy to students to launch a sustainable business in this sector.

5.3 Nascent entrepreneurs

In Figure 20, we provide information on steps made by nascent entrepreneurs towards starting a business. 81.6% of them reported that some activities had been performed. The majority of nascent entrepreneurs started with market research: 30.1% had collected information about markets or competitors and 24.3% had discussed a product or business idea with potential customers.

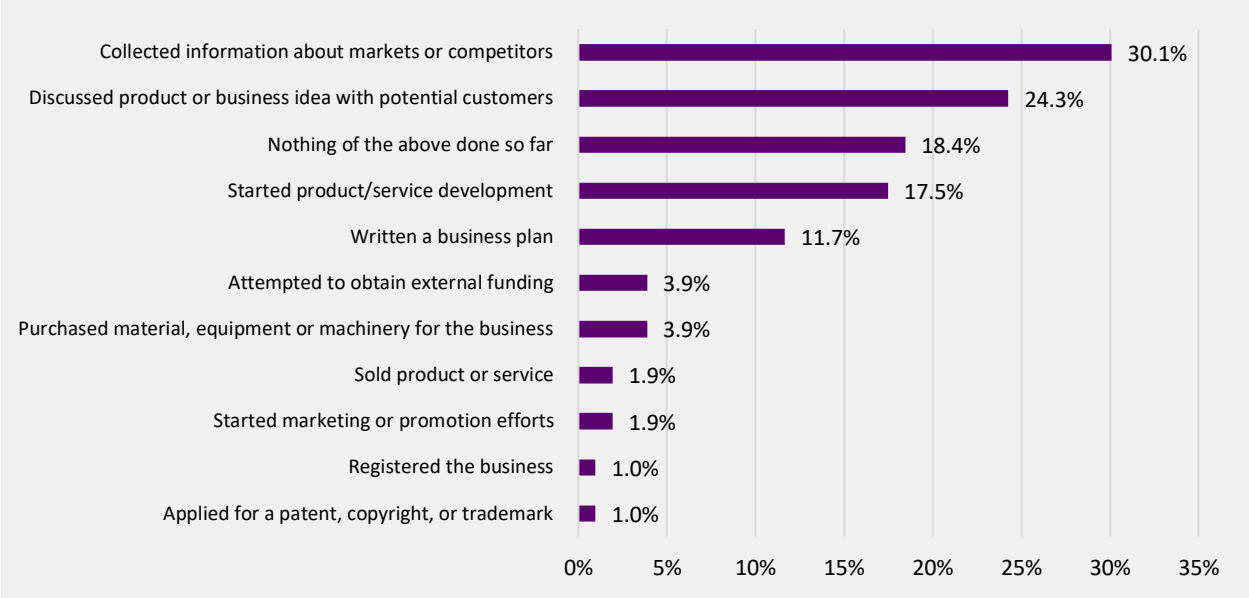


Figure 20. Steps made towards starting a business

More than 40% of all nascent entrepreneurs (international sample) indicated that they planned to complete the process of business creation in the next 19 to 24 months while most of Belarusian nascent entrepreneurs plan to start in the next 1 to 6 months (Figure 21).

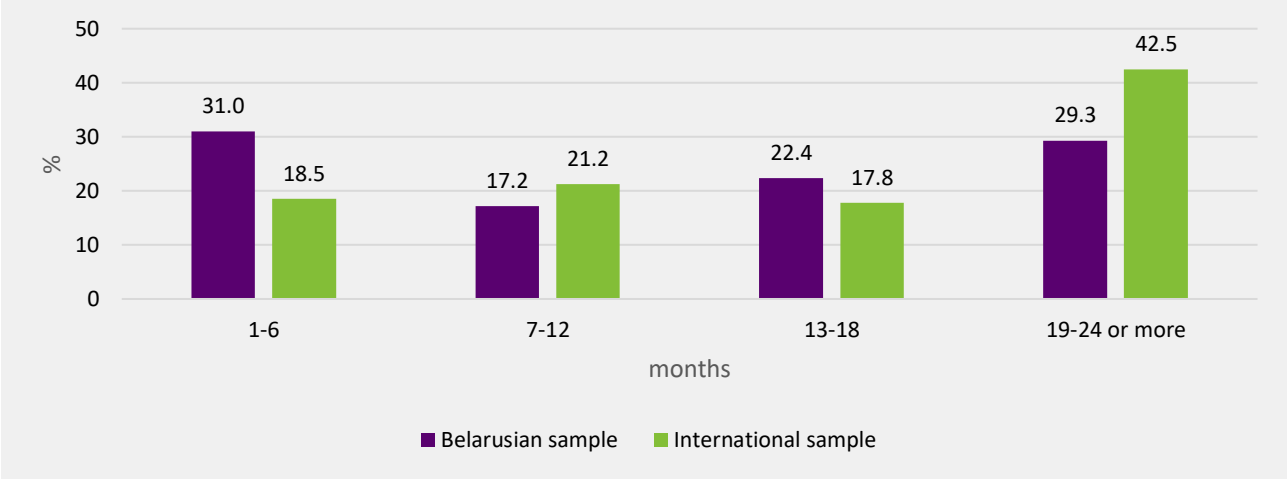


Figure 21. Time horizon of nascent entrepreneurs

Belarusian nascent entrepreneurs tend to found a business with co-founders (Figure 22). Only 31.7% of students plan to start alone and 30% plan to start with one co-founder. The results correspond to the international sample: 31.5% of the nascent entrepreneurs plan to create their business on their own and 26.1% with one co-founder.

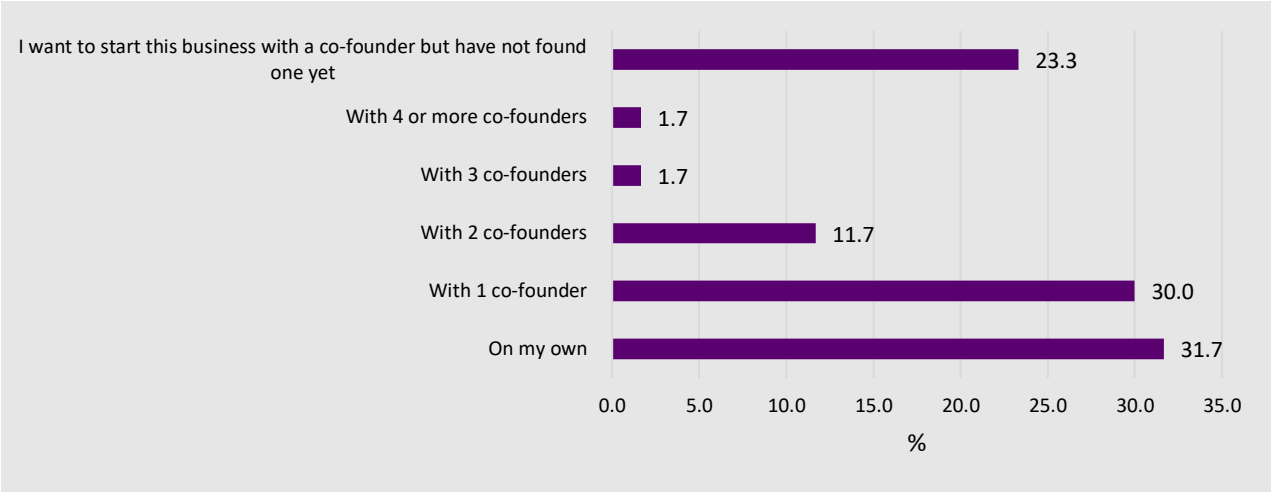


Figure 22. Expected number of co-founders

More than half (56.7%) of the nascent entrepreneurs indicated that they planed that this business would become their main occupation after graduation. 10.0% said that this was not planned; 33.3% had not decided upon this.

The most prevalent specific way to found a team is an intentional search. In most cases, the founding teams seem to be formed in other ways. A similar situation is observed for the international sample (Figure 23). University activities such as courses and projects do not substantially contribute to the emerge of entrepreneurial teams – only 3.9% of teams originated from the university. In the global sample, this percentage appeared 2.7 times higher – 10.6%.

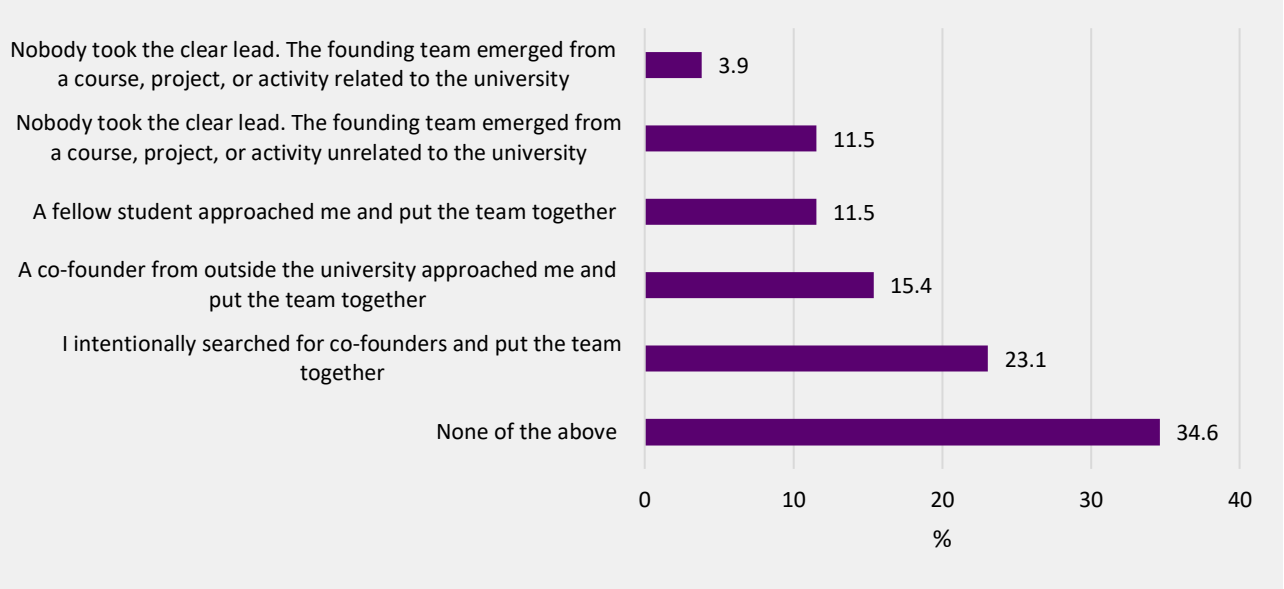


Figure 23. Formation of entrepreneurial teams

5.4 Active entrepreneurs

The businesses that students run are very young – more than one-fourth were created in 2018. 50% of Belarusian students said that this had happened in 2017. Consequently, the businesses were very small: 12.5% of the firms had no employees; around 56% had 1 or 2 employees. Surprisingly, 27.8% of all active entrepreneurs indicated that this business would not be their main occupation after completion of studies; put differently, the created firms might be continued on a part-time basis or might even be abandoned. Still, 33.3% of the entrepreneurs had not finally decided on this issue, and 38.9% planed that the business would actually be their main occupation.

44.4% of the businesses had been created without co-founders, and 44.5% of all firms have one or two co-founders. This further illustrates the relevance of co-founders in student entrepreneurship (Figure 24).

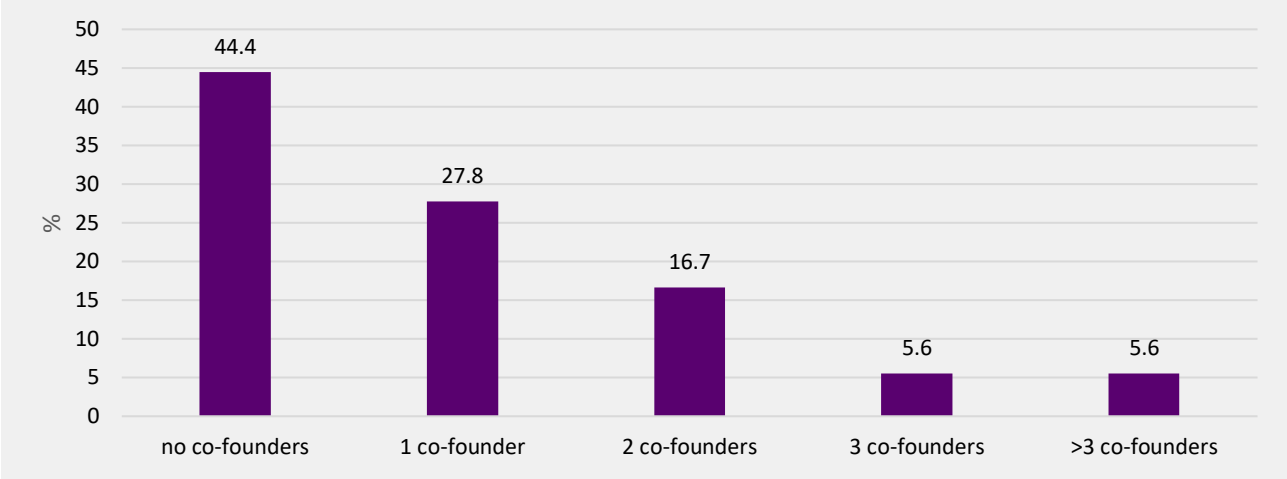


Figure 24. Number of co-founders of active entrepreneurs

Active entrepreneurs were asked to assess satisfaction with the performance of their businesses: they rated their business' performance as compared to competitors in several dimensions (i.e., sales growth, market share growth, profit growth, job creation, and innovativeness) on the scale from 1 (much worse) to 7 (much better). The average is 4.4, which is above the neutral point of the scale and therefore it is quite good news. 28.8% of the active entrepreneurs rated the performance as higher than 5 (Figure 25).

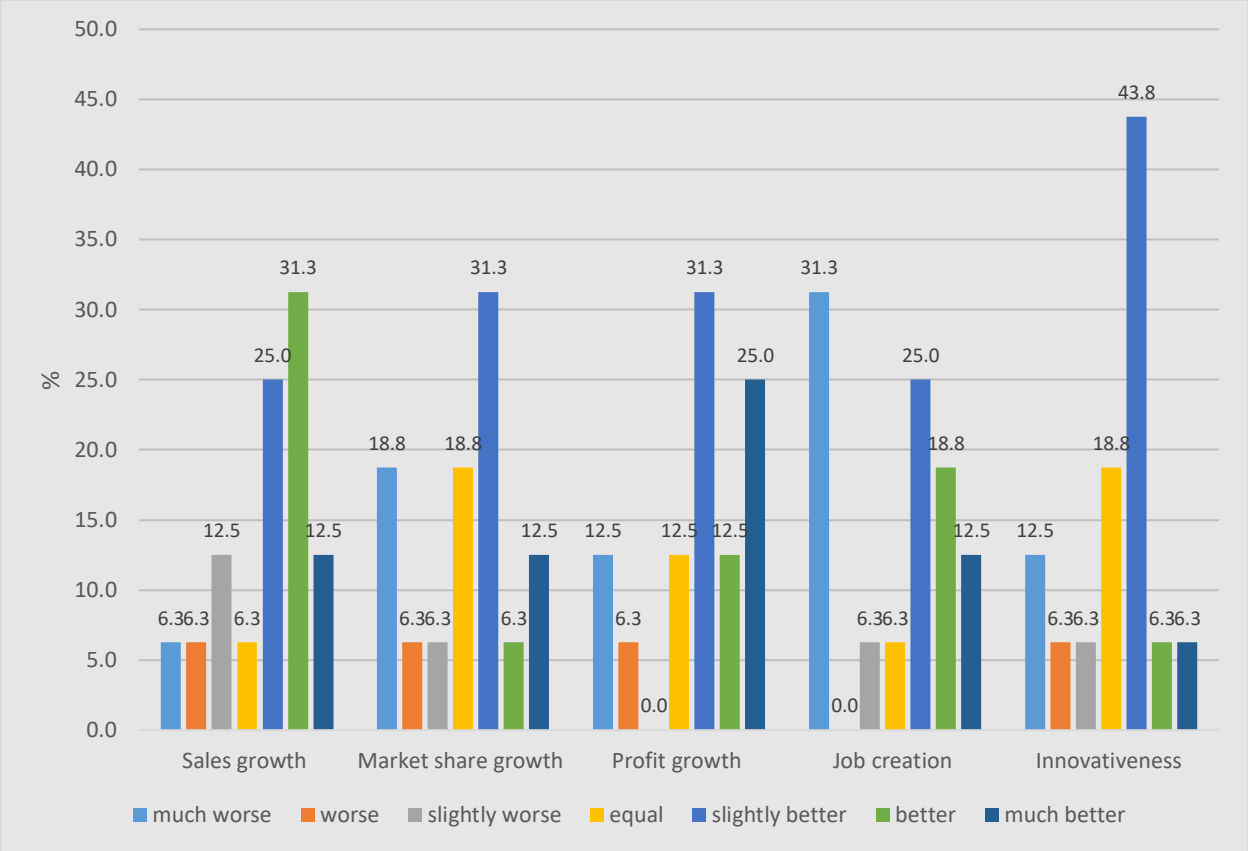


Figure 25. Performance of students' businesses

6. BENCHMARKING AND IMPLICATIONS

Table 7 summarizes the key GUESSS indicators obtained from the Belarusian survey in the 2016 and the 2018.

Table 7. 2016 vs. 2018 Belarusian GUESSS indicators

Indicators	2016	2018	Diff.
Career choice intention (right after graduation, %)			
employee in private firms	73.4%	68.4%	-5.0
employee in non-profit organizations	1.8%	2.6%	0.8
employee in public service	0.8%	5.4%	4.6
employee in academia	2.6%	2.6%	0
founder entrepreneur	7.9%	7.3%	-0.6
successor in family firms	3.0%	3.0%	0
successor in non-family firms	2.0%	1.5%	-0.5
do not know	8.5%	9.3%	0.8
Drivers of entrepreneurial intentions			
Attitudes towards entrepreneurship(average)	5.2	4.6	-0.6
Subjective norms (average)	5.8	5.7	-0.1
Perceived behavioral control (average)	4.6	4.4	-0.2
Entrepreneurial parents	22.2%	25.6%	3.4
University entrepreneurial environment (average)	4.3	4.1	-0.2
University entrepreneurial education outcomes (average)	4.4	4.0	-0.4
Exposure to entrepreneurship education (%)			
At least one course as elective	10.2%	16.6%	6.4
At least one course as compulsory	30.2%	26.7%	-3.5
Specific program on entrepreneurship	4.1%	4.3%	0.2
None	53.9%	47.2%	-6.7
Entrepreneurial activity			
Nascent entrepreneurs	22.9%	22.2%	-0.7
Active entrepreneurs	6.1%	4.3%	-1.8
Nascent entrepreneurs / Active entrepreneurs	3.8	5.2	1.4

At least, four interesting patterns identified in this analysis deserve special attention and should be benchmarked with countries of references: Russia and Poland – two neighboring countries with different institutional contexts.

1. Regarding the career choice intention, the students' intention to become an entrepreneur after graduation has slightly decreased (-0.6 percentage point) as well as being employee in a private company (-5.0 percentage points) in comparison to the previous survey. However, their interest in being an employee in public service has notably increased (4.6 percentage points). The direct share of intentional founders among Belarusian graduate students – 7.3% (7.8% in 2016) is still below than that in Russia – 9.0% (10.6% in 2016) and higher than in Poland – 5.4% (6.2% in 2016). However, in the 5 years career choice intentions, the difference between Belarus and Russia is less: 47.2% (56.9% in 2016) – in Belarus, 50.4% (51.6 in 2016) – in Russia, while Poland lags behind with 36.4% (40.7% in 2016). Notably, surveys in these three countries have demonstrated the decreasing interest in founding a business. In this regard, the fist implication for university managers is related development of initiatives to provide more socioeconomic information about the labor market conditions and options before graduation. In particular, universities which are interested in promoting entrepreneurship as a career choice for graduate students should raise public awareness and understanding among students, parents and potential applicants about their mission to promote entrepreneurial intention and possible outcomes of choosing the entrepreneurial career. Simultaneously, Belarusian universities should develop the entrepreneurial environment (rather than single initiatives) as an important part of the strategy to reinforce the diffusion of information about different support programs (e.g. entrepreneurship courses, mentorship programs, start-up competitions, infrastructure), as well as honoring successful graduate entrepreneurs as role models for current students.

2. Although the students' perception about the university entrepreneurship-related has slightly decreased, the Belarusian students showed more interest in participating in elective entrepreneurship courses (increment of 6.4 percentage points). Simultaneously, the percentage of students that have not attended to entrepreneurship courses has notably decreased (-6.7 percentage points). This is an outcome of the state policy targeted at the expansion of entrepreneurship-related education. At the same time, much attention should be paid to the methodology and content of formal entrepreneurship courses. Activity-based learning aimed at developing critical thinking, readiness to assume responsibility, networking capabilities should be considered as the only way to promote entrepreneurial self-efficacy. Ideally, the Ministry of Education should consider a possibility to implement entrepreneurship-oriented educational trajectories that enable emerging of founding teams of students and faculty from different departments or working together on real-life projects. With respect to the indicators of the entrepreneurial activity, we observe a marginal decrement in nascent entrepreneurs (-0.7 percentage point) as well as a in active entrepreneurs (-2.2 percentage points). The benchmarking with Russian students evidences a remarkable distance from Belarusian students in terms of nascent entrepreneurship (30.1% in Russia vs. 22.2% in Belarus) and active entrepreneurship (6.9% vs. 4.3%). Interestingly, in terms of nascent and active entrepreneurs, Polish students also outperform their Belarusian peers with 24.4% of nascent entrepreneurs and 7.8% of active entrepreneurs. However, it may be explained by the age of Polish students that are on average almost two years older than Belarusians in the sample.

3. Another noteworthy change is observed in the nascent/active entrepreneur ration that has increased from 3.8 to 5.2. This tendency demonstrates that students face external and internal challenges and barriers to transform their entrepreneurial

intentions into entrepreneurial actions. In this regard, universities may be a relevant platform to reinforce competences and capabilities for evaluating and exploiting of business opportunities or to provide mentoring to those graduate students who are interested in creating own businesses. It implies also adapting the current university infrastructure and curricula to the needs of potential entrepreneurs. In general, we recommend concentrating efforts on promotion of the entrepreneurial environment and education in regional universities that would be in line with the regional development agenda that is a pressing issue in the state policy. This would not require additional resources to be invested in research infrastructure since students' entrepreneurial activities in Belarus are not related to research results and high-tech industries. Similarly to the less developed countries (Figure 26), less developed Belarusian regions that seem to be permanently disadvantaged and regional universities are supposed to demonstrate a higher level of students' entrepreneurial intentions and activities. Moreover, in universities that do not participate in the Experimental project the perceived level of the entrepreneurial environment and education appeared even higher than in those that had been selected for the project based on their achievements.

Acknowledging mostly the necessity-driven nature of students' entrepreneurship in less developed countries and regions, we argue that, in the periphery, established and new universities in Belarus could contribute to human capital development by attracting and retaining talents as well as become hubs for future entrepreneurial and innovation ecosystems (Benneworth & Charles, 2005).

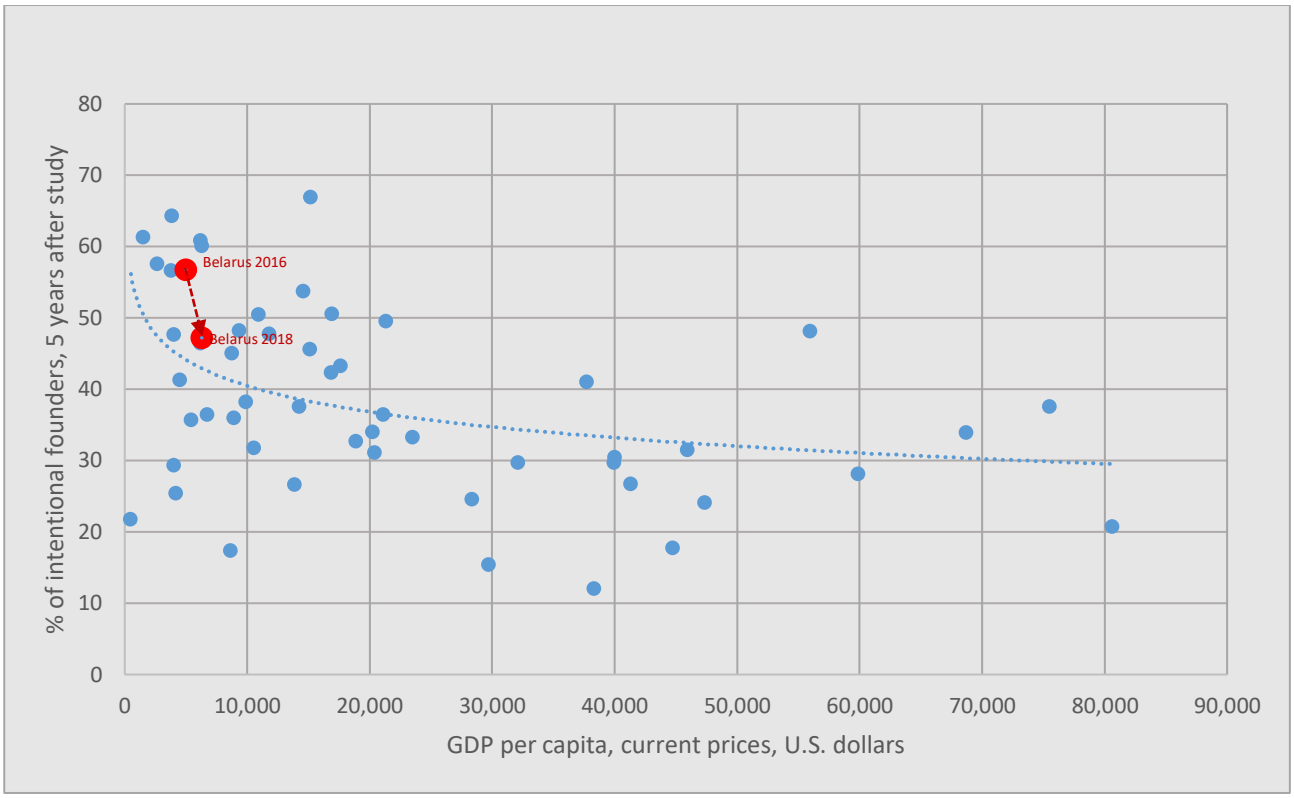


Figure 26. Relationship between GDP per capita[7] and percentage of intentional founders

Similarly to the negative relationship between GDP per capita and students' entrepreneurial intentions (correlation coefficient = -0.434, significant at 0.01 level) (Figure 26), we found even stronger negative relationship between the quality of the higher education system[8] and percentage of nascent entrepreneurs among students (correlation coefficient = -0.582, significant at 0.01 level) (Figure 27). This implies that students from less advanced universities and education systems may either devote more time to working on entrepreneurial opportunities at the expense of learning, or may not consider tertiary education as a social elevator any more. At the same time, high-quality universities are capable to promote and support high-

[7] Data on GDP per capita, current prices, U.S. dollars were retrieved from the World Bank data base.

[8] U21 Ranking of National Higher Education Systems was used to proxy the quality of the higher education system https://universitas21.com/rankings

impact and technology-based students' entrepreneurial activities (Roberts & Eesley, 2009; Eesley & Miller, 2012).

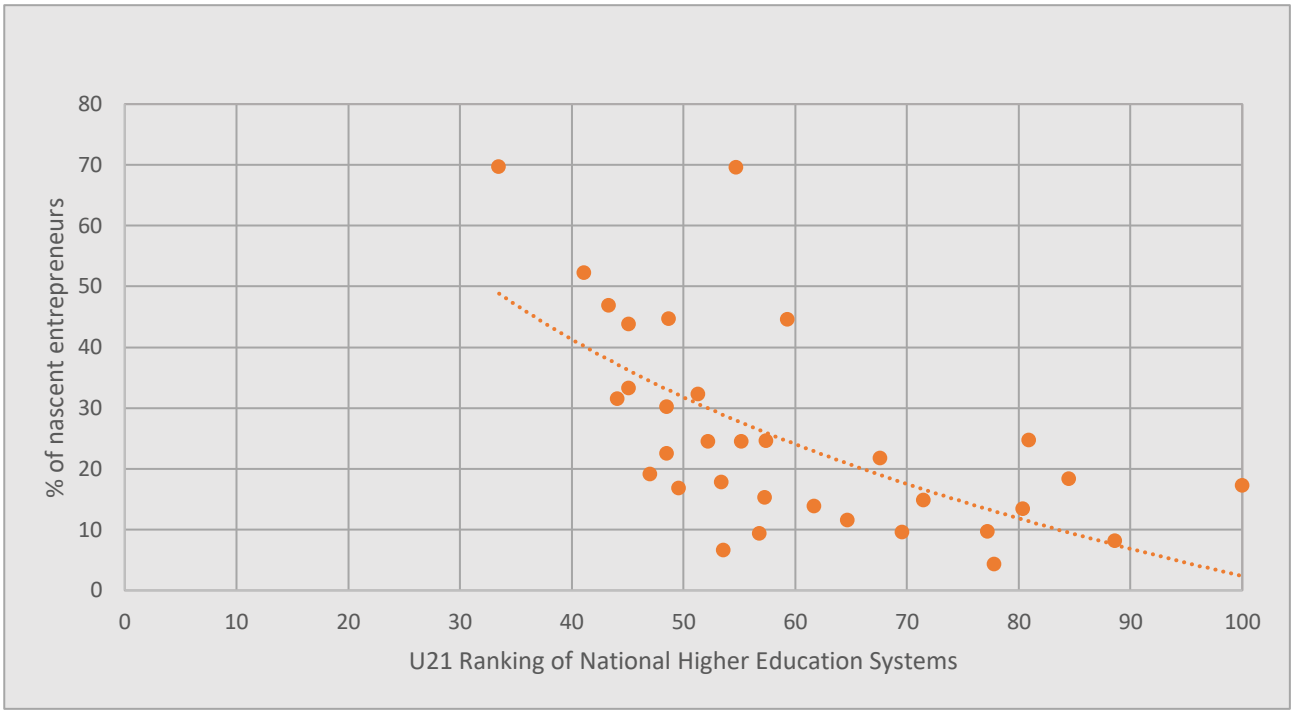


Figure 27. Relationship between the quality of higher education systems and percentage of nascent entrepreneurs

The most relevant recommendation for policy makers is the legitimization of the role of university in fostering entrepreneurship in their community. It implies the recognition of the university role not only in the human capital and knowledge generation but also in promoting students' entrepreneurial behavior. The entrepreneurial experience could help the youth as both employees and entrepreneurs by developing their soft skills for being leaders in the rapidly changing innovation-driven economy. At the same time, universities should concentrate efforts on supporting technology-based entrepreneurship that would contribute to human capital formation and research activities, rather than assess the total number of student entrepreneurs.

To conclude, the country should build entrepreneurial capacity and develop entrepreneurial values to increase the amount of economic activity and generate value added and employment. Since Belarus has the lowest score among Eastern Partnership countries in terms of enterprise skills and entrepreneurial learning (OECD, 2015), the role of universities is even more determinative. Importantly, the contribution of universities in these terms needs to be evaluated and benchmarked to develop effective and efficient policy measures. In this regard, the GUESSS project is one of the relevant and complex tools.

List of references

Achrol, R. S., & Stern, L. W. (1988). Environmental determinants of decision-making uncertainty in marketing channels. *Journal of Marketing Research*, 25(1), 36-50.

Ajzen, I., 1991. The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), pp.179-211.

Ajzen, I., 2002. Residual effects of past on later behavior: Habituation and reasoned action perspectives. *Personality and Social Psychology Review*, 6(2), pp.107-122.

Belstat, 2019, Education in the Republic of Belarus (Academic year 2018/2019). Statistical book. National Statistical Committee.

Benneworth, P., & Charles, D. (2005). University spin-off policies and economic development in less successful regions: learning from two decades of policy practice. *European Planning Studies*, 13(4), 537-557

Eesley, C.E. & Miller, W.F., 2012. Stanford University's economic impact via innovation and entrepreneurship. *Stanford News.*

Gibson, C. B., & Birkinshaw, J. (2004). The antecedents, consequences, and mediating role of organizational ambidexterity. *Academy of Management Journal*, 47(2), 209-226.

Hofstede, G., Neuijen, B., Ohayv, D. D., & Sanders, G. (1990). Measuring organizational cultures: A qualitative and quantitative study across twenty cases. Administrative science quarterly, 286-316.

Iakovleva, T., Kolvereid, L. & Stephan, U., 2011. Entrepreneurial intentions in developing and developed countries. *Education+ Training*, 53(5), pp.353-370.

Krueger Jr., N.F., Reilly, M.D. & Carsud, A.L., 2000. Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15(5), pp.411-432.

Levenson, H. (1973). Multidimensional locus of control in psychiatric patients. *Journal of Consulting and Clinical Psychology*, 41(3), 397-404.

Liñán, F. & Chen, Y.-W., 2009. Development and Cross-Cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship Theory and Practice*, 33(3), pp.593-617.

Liñán, F., Urbano, D. & Guerrero, M., 2011. Regional variations in entrepreneurial cognitions: Start-up intentions of university students in Spain. *Entrepreneurship and Regional Development, 23(3-4),* 23(3-4), pp.187-215.

Marozau R., 2019. Modernization and development of Belarusian higher education institutions based on the entrepreneurial university framework BEROC Policy Paper Series, PP no.63. Access mode: http://eng.beroc.by/webroot/delivery/files/Paper_Marozau_New.pdf Access date: 19.08.2019.

Marozau R., Guerrero M., Urbano D. & Ibañez A. Evolving Entrepreneurial Activities at Post-Soviet Universities. In Joe Maxwell eds. *Higher Education Institutions: Perspectives, Opportunities and Challenges*. Nova Science Publishers, New York. pp.201-246

Marozau R. & Apanasovich V., 2015. Entrepreneurial university as a center for capacity building in the knowledge economy. In A. Markov eds. *Innovation Management: Theory and Practice.* Minsk: Kolorgrad (In Russian).

McGee, J.E., Peterson, M., Mueller, S.L. & Sequeira, J.M., 2009. Entrepreneurial self-efficacy: Refining the measure. *Entrepreneurship: Theory and Practice*, 33(4), pp.965-988.

OECD, 2015. SME Policy Index: Eastern Partner Countries 2016: Assessing the Implementation of the Small Business Act for Europe in SME Policy Index. OECD Publishing: Paris, Access mode: https://doi.org/10.1787/9789264246249-en, Access date: 26.10.2018.

Roberts, E.B. & Eesley, C., 2009. *Entrepreneurial Impact: The Role of MIT*. Kansas City: Kauffman.

Simón-Moya, V., Revuelto-Taboada, L., & Guerrero, R. F. (2014). Institutional and economic drivers of entrepreneurship: An international perspective. *Journal of Business Research*, 67(5), 715-721.

Tkachev, A. & Kolvereid, L., 1999. Self-employment intentions among Russian students. *Entrepreneurship & Regional Development*, 11(3), pp.269-280.

Acknowledgment

GUESSS 2018 was generously supported by Ernst & Young (EY) as the international project partner.

The Authors gratefully acknowledge active participation of the Association of Business Education (Belarus) and personally its Chairman Prof. Vladimir Apanasovich in conducting the survey.

About the authors

Radzivon Marozau obtained his PhD at the Deusto Business School, University of Deusto (Spain). He is the Research Fellow at the Belarusian Economic Research and Outreach Center (BEROC). Areas of research interest include private sector development, entrepreneurial university, academic entrepreneurship, and entrepreneurship education. Dr. Radzivon Marozau is an author of several papers published in prestigious journals such as the Research Policy and the Journal of the Knowledge Economy. He is a country coordinator of Global University Entrepreneurial Spirit Students' Survey (GUESSS) and a member of the Belarusian team of the Global Entrepreneurship Monitor (GEM).

Maribel Guerrero is professor of entrepreneurship at the School of Business and Economics, Universidad del Desarrollo (Chile) and at the Newcastle Business School (Northumbria University, UK). She actively participates in international research projects (e.g., the Global Entrepreneurship Monitor, the Panel Studies of Entrepreneurial Dynamics, the HEInnovate initiative, the Spanish Observatory of University Entrepreneurship). She has been guest editor of several special issues published in recognized journals about entrepreneurial universities, technology entrepreneurship, corporate entrepreneurship, and among others. Her research interests are related to entrepreneurial activities inside public (entrepreneurial universities) and private organizations (corporate entrepreneurship), their socio-economic impacts, as well as the configuration of entrepreneurship/innovation ecosystems. For further details, visit.

Yuliya Yafimenka graduated from the Belarusian State Economic University with a degree in Economics (B.A.) in 2019. In 2018, she graduated from the Eighth BEROC Student School in Economics. Her research interests are welfare, well-being and poverty; econometric modeling. Her recent presentation was about Maternal and Infant Health in Belarus at Kyiv School of Economics.