



Graduate  
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# Global University Entrepreneurial Spirit Students' Survey

National report  
Russia 2013/2014

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## INTRODUCTION

Entrepreneurship is one of the sources of economic growth, competitiveness, jobs creation and public goals achievement (Linan et al., 2005). Entrepreneurial activity acts as a driver of economic, social and technological development of the country and plays a special role in ensuring stability and development of innovation. With huge potential, entrepreneurship may become the strategic resource that is able to solve the key problems of the economy, to ensure effective interaction between all market participants and lead to positive dynamics of growth.

Entrepreneurship has captured the attention of both scholars and policy makers during the last decades. The main reason of this concern is growing need for entrepreneurs who accelerate economic development through generating new ideas and converting them into profitable ventures. Entrepreneurial activities are not only the incubators of technological innovations: they provide employment opportunity and increase competitiveness also. Since the encouragement of entrepreneurship is essential to stimulate growth in “a growth-conscious world”, “... we can try to learn how one can stimulate the volume and intensity of entrepreneurial activity...” (Baumol, 1968, p. 71). In such a learning process, both policy makers and scholars should concentrate on the question of why some people choose an entrepreneurial career and others do not.

Long-term supply of well-educated and well-qualified entrepreneurs is essential to a strong modern economy (Scott et al, 1988).

The idea of becoming an entrepreneur is increasingly attractive to students as it is considered as a valuable way of participating in the labor market without losing one's independence (Martinez, Mora, & Vila, 2007). Further, the desirability of self-employment is also related to the rising unemployment rate (Reynolds, Miller and Makai, 1995; Reynolds, Storey & Westhead, 1994) and public policies (e.g. providing good infrastructure for new ventures, tax benefits, and incubation programs) on encouraging entrepreneurship and innovation industries (Lee et al., 2006). Besides, increasing disappointment

with traditional occupations in large companies (Kolvareid, 1996) is another reason for the entrepreneurial phenomenon (Jackson & Vitberg, 1987). The work values related to self-employment (independence, challenge and self-realization) have become increasingly desirable (Luthje & Franke, 2003).

Therefore, in order to encourage entrepreneurship, it is essential to know and to understand why students opt for entrepreneurial career in a given unique context. Many researchers tried to understand the roots of entrepreneurial intentions among potential entrepreneurs (students), meanwhile, practitioners, academics and policy makers, using given recommendations, are eager to promote entrepreneurial mindset within society.

In order to answer these questions and to get an idea about the main sources of entrepreneurial intentions of students the project Global University Entrepreneurial Spirit Students' Survey was organized. The focus of the research is not only the new venture process by students, but also broader entrepreneurial context and other career intentions of the students. For example, the project examines the intentions of students to succeed in family business or choose the career of a hired manager within an existing company.

The main purpose of this report — to present the results of the Russian part of the project and to compare the data with the international sample, which includes more than 100,000 respondents from 34 countries.

We are convinced that GUESSS project, in general, and this national report, in particular, will help to develop a more accurate picture of the career plans of Russian students to identify factors of entrepreneurial intentions and will be useful both to researchers in the field of entrepreneurship, and representatives of universities and governmental bodies in decision-making in the field of education and modernization of university infrastructure that is able to maintain and develop the entrepreneurial potential of Russian students.

# 1. RESEARCH FRAMEWORK

## 1.1. Main Goals of the Study

International research project The Global University Entrepreneurial Spirit Students' Survey (GUESSS) has been held every two years since 2003. It was originally called the study ISCE — International Survey on Collegiate Entrepreneurship, but it was renamed in 2008. Six international panel studies have been held in 2003, 2004, 2006, 2008, 2011 and 2013/2014. Russia participated in this study for the first time in 2011, when 2882 students from 23 Russian universities took part in the survey.

In 2013/2014 GUESSS Russian team took part in this project for the second time. Data collection was carried out from October 2013 till February 2014, 32 Russian universities took part in the study. From 26,400 students to whom an invitation to participate in the study was sent, 4,578 people answered the questionnaire, accounting for 17.34% of the respondents. Besides, Russia ranked 10th out of 34 countries in the number of students responses (Table 1).

*Table 1*  
Countries Participating in GUESSS 2013/2014

No.	Country	Number of answers	No.	Country	Number of answers
1	Australia	495	18	Malaysia	2 452
2	Austria	4 220	19	Mexico	637
3	England	654	20	Nigeria	7
4	Argentina	190	21	The Netherlands	9 907
5	Belgium	402	22	Poland	11 860
6	Brazil	12 561	23	Portugal	213
7	Hungary	8 844	24	Russia	4 578
8	Germany	10 570	25	Romania	277
9	Greece	435	26	Singapore	6 471
10	Denmark	1 027	27	Slovenia	903
11	Israel	1 086	28	USA	245
12	Spain	10 545	29	Finland	704
13	Italy	7 765	30	France	332
14	Canada	509	31	Switzerland	7 419
15	Columbia	801	32	Stotland	280
16	Liechtenstein	203	33	Estonia	1 391
17	Luxembourg	153	34	Japan	890

The main objectives of the international research project GUESSS are as follows:

- systematic and long-term study of entrepreneurial intentions and entrepreneurial activity of students in different countries;
- identification of the main assumptions and conditions for the creation of new businesses and entrepreneurial career choice;
- study of the role of university infrastructure in shaping entrepreneurial spirit of students.

Thus, the project is of interest to different stakeholders: for countries, as it allows them to understand the conditions for entrepreneurship development and learn about the attitude towards entrepreneurship among students; for universi-

## 1.2. Theoretical Model of Research

Theoretical basis of the research as part of GUESSS project is the Theory of Planned Behavior (TPB) (Ajzen, 2002; Fishbein, Ajzen, 1975), according to which any behavior reflects the influence of three groups of factors related to this behavior, subjective norms and perceived behavioral control. The theory of planned behavior includes some key concepts of social and behavioral sciences and defines these concepts so as to provide an opportunity to predict and understand particular behavior in particular context. Theoretical concept of GUESSS 2013/2014 has been slightly extended, because it is assumed that the formation of entrepreneurial intentions of students, in addition to these three groups of factors, is affected by others: personal reasons, university environment, family and socio-cultural context (Sieger, Fueglistaller, Zellweger, 2014). Fig.1 presents an updated diagram.

GUESSS project focuses on three dimensions related to students and entrepreneurship: 1) individual level (student); 2) university level; 3 ) the

ties, because it allows them to assess whether their training programs and the environment of the university itself contribute to the formation of entrepreneurial intentions; for the state and society, because it attracts their attention to the issue of entrepreneurship and the creation of new businesses, identifying the need for action; for students, as it forces them to think, what career they seek, and to outline their strategic plan for the long term.

GUESSS — one of the most ambitious projects on entrepreneurship, which aims to involve all countries in the world which would allow it to play a crucial role in the research and practice of entrepreneurship.

family and socio-cultural context of the development of entrepreneurship in general. Thus, there are three main objectives:

1) analysis of *individual characteristics of students* and their impact on entrepreneurial intentions of students. Age, gender and education can influence the development of entrepreneurial intentions and desire to create their own business. Characteristics of companies set by students are analyzed which could be the basis for the development of new research models in the study of entrepreneurship.

2) study of the *universities* in terms of the infrastructure that supports the development of entrepreneurial attitudes among students: the presence of courses in entrepreneurship, general business climate in the university.

3) study of the role of *family and socio-cultural context* in the formation of entrepreneurial intentions. It explores the relationship between the desire to choose the career of an entrepreneur and attitude within fami-

lies and communities to such a perspective. In addition, attention is paid towards risk when choosing a career.

In addition to these tasks, the project also helps to study the overall entrepreneurial spirit of students in

the country, to determine the conditions contributing to the development of students as entrepreneurs, and a number of recommendations for infrastructure development of entrepreneurship education.

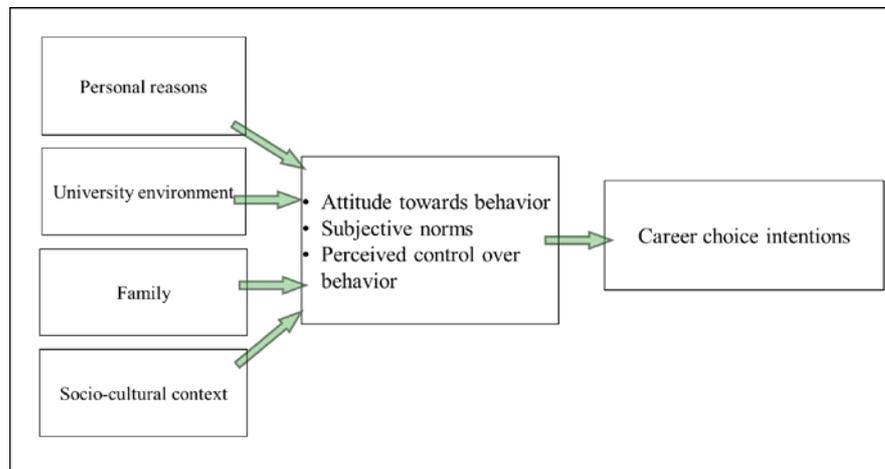


Fig. 1. Theoretical Model of GUESSS Project 2013/2014

### 1.3. Project Coordination

At the international level, GUESSS project is coordinated by Swiss Research Institute of Small Business and Entrepreneurship at the University of St. Gallen (KMU-HSG). Project coordinators are responsible for the search of national representatives in the participating countries, as well as for writing of the international report on the results of the study, which

provides comparative analysis of the data received from all countries.

Coordination and management of the project include three levels: *the first level* — head of international project team and key team; *the second level* — the national representative of the country (team); *the third level* — partner universities. The organizational structure of the project is presented in Fig. 2 .

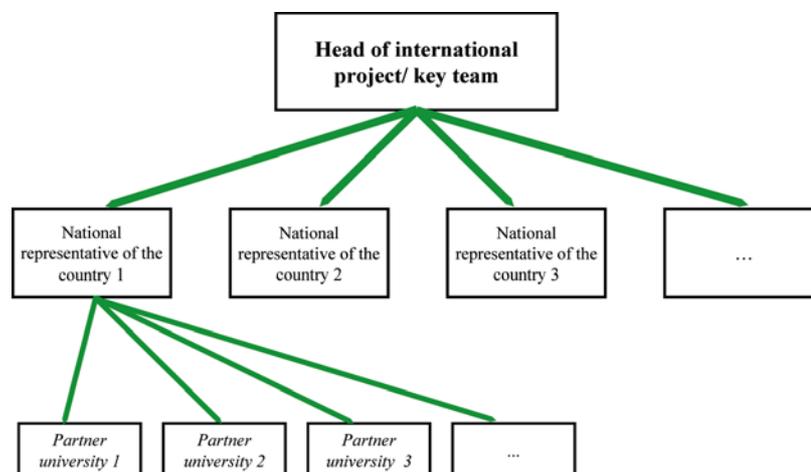


Fig. 2. Organizational Structure of GUESSS Project 2013/2014

National representatives are searching for and involving higher education institutions of the country to participate in the project, communicate with the university, send information on the interim results of the study, and are also responsible for the creation of the national report on entrepreneurial intentions of students. Data is collected online via “Information Factory” company (<http://www.information-factory.com/>).

It is worth mentioning that partner universities receive a number of advantages while taking part in this project:

- universities can get database with the responses of partner-university students for further analysis;

- data analysis allows representatives of universities to get in-depth understanding of entrepreneurial attitudes, intentions, actions and desires of its students, as well as their vision of the role of the university in this context; moreover, they have an opportunity to evaluate the effectiveness and quality of university programs in the context of entrepreneurship;

- universities in general may increase the awareness of students in the field of entrepreneurship;

- free access to national and international reports .

Since data on GUESSS project have been collected since 2003, and since 2004 – every two years, we already have a panel data set that allows to track the dynamics on individual factors over the time. International report contains comparative data on entrepreneurial intentions and students activity from different countries. National reports provide an opportunity to see and analyze the national context, as well as individual students characteristics from the country. Furthermore, the analysis of the national context allows to better understand what factors lead to the development, and what — fetter the formation of students’ entrepreneurial spirit. We can understand and draw conclusions about what should be done to improve entrepreneurial climate in the country with the help of periodic data collection, their analysis and temporary comparisons.

## **2. NATIONAL CONTEXT OF THE RESEARCH: ENTREPRENEURSHIP IN RUSSIA**

Present stage of development of the Russian economy can be characterized as the stage of transition from efficiency-oriented economy to an innovation-oriented economy (Global Competitiveness Report, 2013). The favorable factors of development of competitiveness include the following: a large number of specialists with higher education, investments in infrastructure and a large domestic market. Among the main problem areas low level of development of public institutions and financial markets are emphasized, insufficiently high level of compete-

tion that is among other things connected with the ineffectiveness of the antitrust policy, as well as low pace of introduction of advanced technologies (Global Competitiveness Report, 2013). Studying the conditions for the development of entrepreneurship in Russia, we cannot forget that there are significant differences between regions: an obstacle to the development of entrepreneurial activity in one region may be perceived completely differently in another region (Diversifying Russia, 2012).

According to the Global Entrepreneurship Monitor 2013, the number of early-stage entrepreneurs in Russia increased by 25% and amounted to 5.75% of the adult working population. It should be noted that the level of entrepreneurial activity in Russia appeared lower than in the other BRICS countries. In addition, there is high proportion of necessity-driven entrepreneurs in Russia: about 40% of the respondents started their business because they could not find alternative sources of income.

Conditions within the country can be one of the causes of low entrepreneurial activity among the population. According to the report “Doing Business 2014”, Russia ranks 92 on the ease of doing business, rising for 19 positions compared to 2013. The greatest difficulties in the process of establishing business and its operation are associated with obtaining a permit to construction, implementation of international operations and property investor rights protection. The last factor is crucial for young entrepreneurial firms, as it is directly related to their ability to raise capital required for growth of the innovation, diversification of activities and the development of competitive advantages.

Development of innovative firms — a direction that is a national priority, but has not yet received proper development in Russia. The report of the World Economic Forum's “Global Competitiveness 2013” states that Russia is 78th in terms of innovation. Investment in infrastructure for innovation, cooperation of universities and enterprises in research and development, legal protection of high-tech products, the willingness of firms to bear the costs of research — all these areas require further active development.

Of course, it should be noted that there are positive trends in the development of Russian entrepreneurship. It is stated in the study of The EY G20 Entrepreneurship Barometer 2013 that Russian entre-

preneurs positively assess the pace and direction of development of the business environment in the country. In Russia, business incubators, industrial theme parks, business community, and mentoring programs are developing, as well as other forms of business support, which is certainly beneficial to business development. According to 70% of the respondents who participated in this study, the main catalyst for the development of entrepreneurship in Russia is the large and actively growing consumer market. The main obstacle for the development of entrepreneurship 59% of respondents consider low level of development of the access to finance. The presence of this problem is also confirmed by Global Competitiveness Report, 2013, where it is noted that Russia ranks 121 in terms of the level of development of financial markets.

The first among the main areas to improve conditions for entrepreneurship development is further “de-bureaucratization” and facilitation of interaction with regulating bodies. Moreover, 79% of respondents consider it necessary to develop and implement special training programs in entrepreneurship. In Global Entrepreneurship Report 2013 of Amway they also assessed respondents' attitudes to education in Russia in the field of entrepreneurship. As a result, it was found that 23% of respondents believe that education in entrepreneurship and business skills training are the most important factors of entrepreneurship development in Russia.

Entrepreneurship education in the Russian context is usually built on seminars, roundtables, discussion clubs and training courses. At the moment in many Russian universities courses on entrepreneurship are developed and implemented as well as educational programs related to entrepreneurship. However, in Russian education system this direction has not yet been properly developed.

## 3. RESEARCH METHODOLOGY AND SAMPLE

### 3.1. Data Collection

As it has already been mentioned data collection for the project Global University Entrepreneurial Spirit Students' Survey (GUESSS) in the 2013/2014 took place in 34 countries from October 2013 till February 2014. For this purpose online questionnaire has been developed, and each of the participating countries had the right to translate it into their language. In Russia, the participants profile was available in Russian. It took 10–15 minutes to complete the survey.

Graduate School of Management St. Petersburg State University is the national partner of the project. The research team of Graduate School of Management SPbSU was responsible for finding

and attracting Russian universities, translation and dissemination of the links to online questionnaire among national participants. Data was collected in Russia from the beginning of October till the end of December 2013.

Official contacts of Graduate School of Management SPbSU and the Center for Entrepreneurship of GSOM SPbSU as well as researchers personal contacts were used for data collection. The Russian Association for Entrepreneurship Education (RAEE) assisted greatly in this process. Every two weeks subtotals of data collection were sent to the representatives of universities with wishes to intensify efforts to attract students.

### 3.2. Universities — Project Participants in Russia

The sample included students from 32 universities of Russia. Initially questionnaires were sent to 35 universities, but there was no reply from three universities. From 26,400 students to whom an invitation to participate in the study was sent,

4,578 people answered the questionnaire, equaling to 17.34% of the respondents. The total sample study for all countries was 109,026 people. The distribution of respondents by Russian institutions of higher education is given in Table 2.

### 3.3. Sample Profile

The overwhelming majority of respondents in Russia were undergraduate students (89.47% answered the questions), 19.7% of respondents were enrolled in graduate (master) programs, 1.09% were graduate students, and 0.81% were

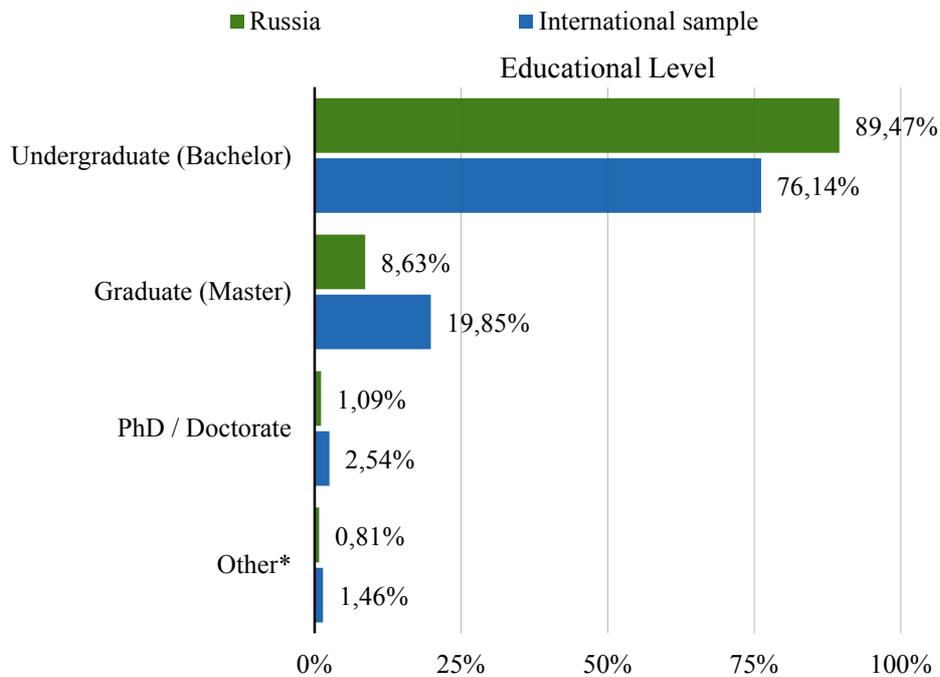
students from the other programs. In the international sample the number of students enrolled in master programs is slightly higher, and the number of undergraduate students is slightly lower, which is clearly shown in Fig. 3.

Table 2

## Distribution of Respondents by Universities

No.	List of Partner Universities	City	Amount of Students to whom the link was sent	Amount of Students who answered the questionnaire	% of the total sample of respondents in Russia
1	St. Petersburg State University	St. Petersburg	5000	400	8.74
2	National Research University "Higher School of Economics", St. Petersburg Branch	St. Petersburg	100	366	7.99
3	Kazan National Research Technological University	Kazan	300	313	6.84
4	Moscow University of Industry and Finance "Synergy"	Moscow	300	291	6.36
5	Stavropol State Agrarian University	Stavropol	300	256	5.59
6	The North Caucasus Federal University	Stavropol	200	249	5.44
7	Ammosova North-Eastern Federal University	Yakutsk	300	222	4.85
8	National Research University "Higher School of Economics", Nizhny Novgorod Branch	Nizhny Novgorod	1000	211	4.61
9	Far Eastern Federal University	Vladivostok	500	186	4.06
10	Perm National Research Polytechnic University	Perm	500	182	3.98
11	St. Petersburg State Polytechnical University	St. Petersburg	200	166	3.63
12	Tupolev Kazan State Technical University	Kazan	250	156	3.41
13	Irkutsk State Technical University	Irkutsk	300	142	3.1
14	Pyatigorsk State Linguistic University	Pyatigorsk	1000	130	2.84
15	Bryansk State Technical University	Bryansk	500	123	2.69
16	Volga State University of Technology	Ioshkar-Ola	500	101	2.21
17	Tomsk National Research Polytechnic University	Tomsk	10000	97	2.12
18	Herzrn Russian State Pedagogical University	St.Petersburg	1000	94	2.05
19	Other universities (+14)*		4150	893	19.49
	<b>Total</b>		26400	4578	100

\*Note: amount for 14 universities who received less than 2% of the total number of respondents, and questionnaires, where the university was not specified (126 replies)

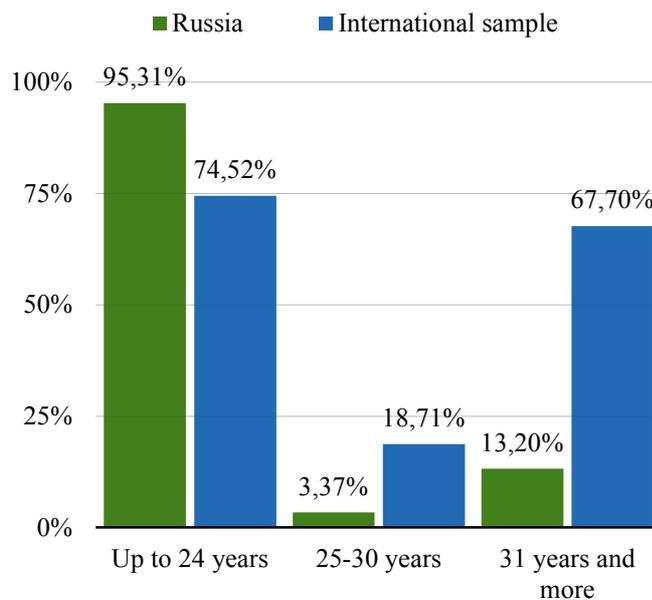


**Fig. 3. Students Level of Studies**

\* "Other" category includes students of MBA, EMBA, Postdoc, etc. programs

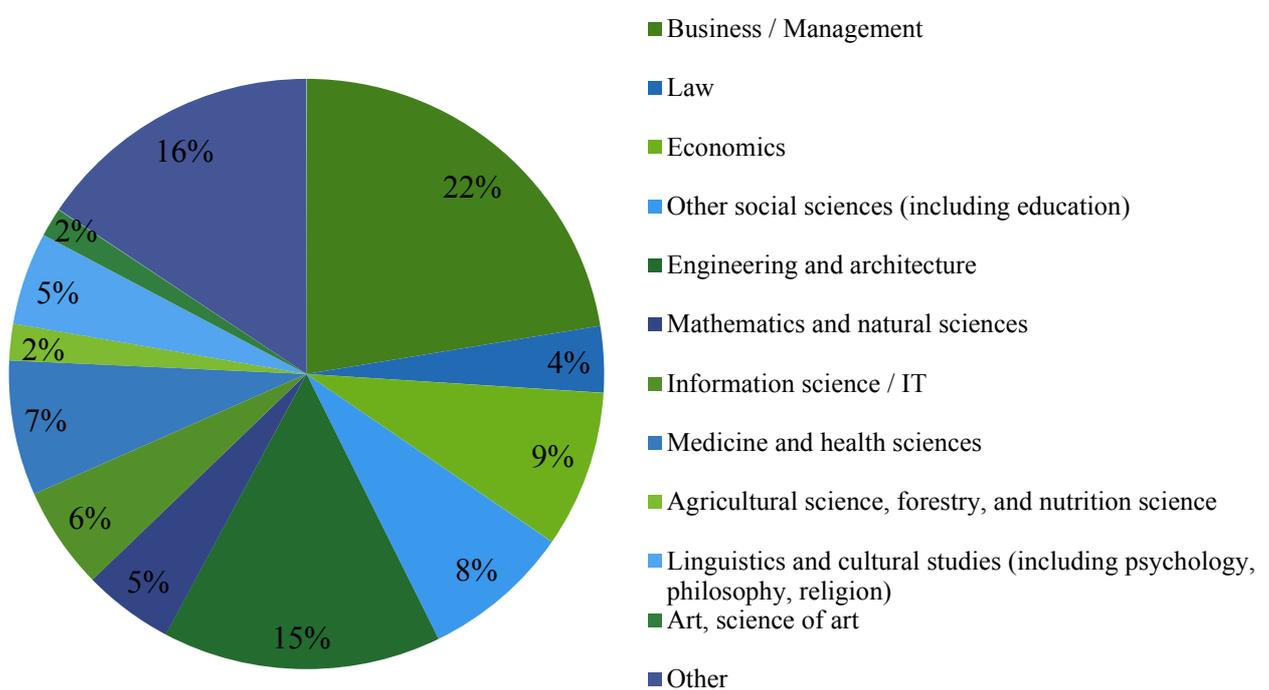
In Russian sample 60 people (1.35%) are exchange students, of whom: 76.67% — undergraduate students, 16.67% — master students, 1.6% — graduate students and 5% — students from other programs. The average age of respondents in Russia

is 20 years, which is three years younger than the average age of all international participants (Fig. 4). It is worth noting that in international sample the share of students under 24 years is nearly 75%, and in Russia — more than 95%, that constitutes the majority.



**Fig. 4. Students Age in International and Russian Sample**

Gender composition of Russian students is presented in the following ratio: 69.5% of women and 30.5% of men. In the international sample the share of women also dominates, reaching to 58.39%.



**Fig. 5.** Distribution of Russian Students by Field of Studies

All fields of studies were roughly divided into 4 groups: business and economics, social sciences, natural sciences, and other areas (Table 3). Among survey respondents in Russia most (62%) of students study economics and business, 14% — natural sciences, 6% — social sciences, and 16% indicated the “other”. To compare, on a global scale 34.5% of students study business and management, natural sciences — 35.1%, social sciences — 13.1%, and 17.2% indicated the “other”. It should be mentioned that in 2011, and in 2013/2014 the number of students studying business and management in Russian sample is twice than for all the other countries. This is pri-

While answering to one of the questions the students were asked to indicate an area of knowledge (specialization), in which they are educated. Fig. 5 is a detailed breakdown of students among all fields of studies.

marily due to the fact that professors of business and management expressed their interest in the project in Russian universities.

Fig. 6 shows the ratio between men and women for each field of studies. As it might be expected, most of the male students are trained in natural sciences, while the majority of women are opting for business and management or social sciences. The issue of student performance is relevant in any educational institution, since it acts as one of the criteria for assessing the quality of education. Performance reflects the level and scope of knowledge, expressed in quantitative terms (e.g. in points).

Distribution of Respondents by Field of Studies: 2011 and 2013

Field of Studies	Disciplines included	2013		2011	
		Russia, %	International sample, %	Russia, %	International sample, %
<b>Business and Management</b>	Business/management, law, economics	61,5	34,6	62,5	29,3
<b>Natural sciences</b>	Engineering and architecture, mathematics and science, computer science / information technology, agriculture / forestry / dietetics, medicine and health	14,2	35,1	18	32,9
<b>Social sciences</b>	Linguistics and cultural studies (including psychology, philosophy, religion). Other social sciences (eg., sociology, education)	6,5	13,1	7,5	21,5
<b>Other sciences</b>	Art, art history and other fields	17,8	17,2	12	16,3

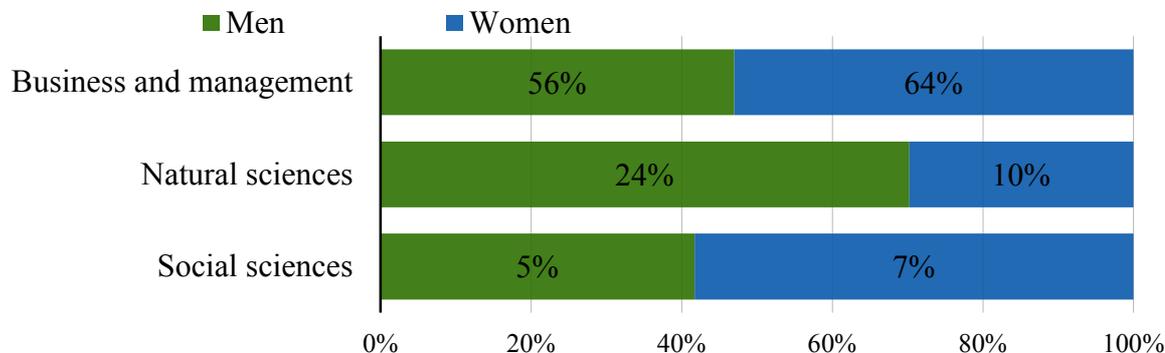


Fig. 6. Gender Composition and Field of Studies in Russian Sample

The questionnaire asked students to evaluate their performance on a scale of 1 (far below average) to 7 (far above average). The distribution of responses is presented in Figure 7. The average value of grading of Russian students is higher than among all respondents (5.1 vs. 4.78). Less than 2% of respondents believe that their performance is “far below average” or “slightly below average”, the majority of students (28.91% in

the Russian sample and 35.68% — in international) rated their level of achievement as “above average”. But in Russia, the share of students with an estimate of its performance level “far above average” was about 12%, compared with 4.15% for all countries. In addition it should be noted that more than 25% of students in Russia and 36% in the total sample have a permanent job at the time of their studies at the university.

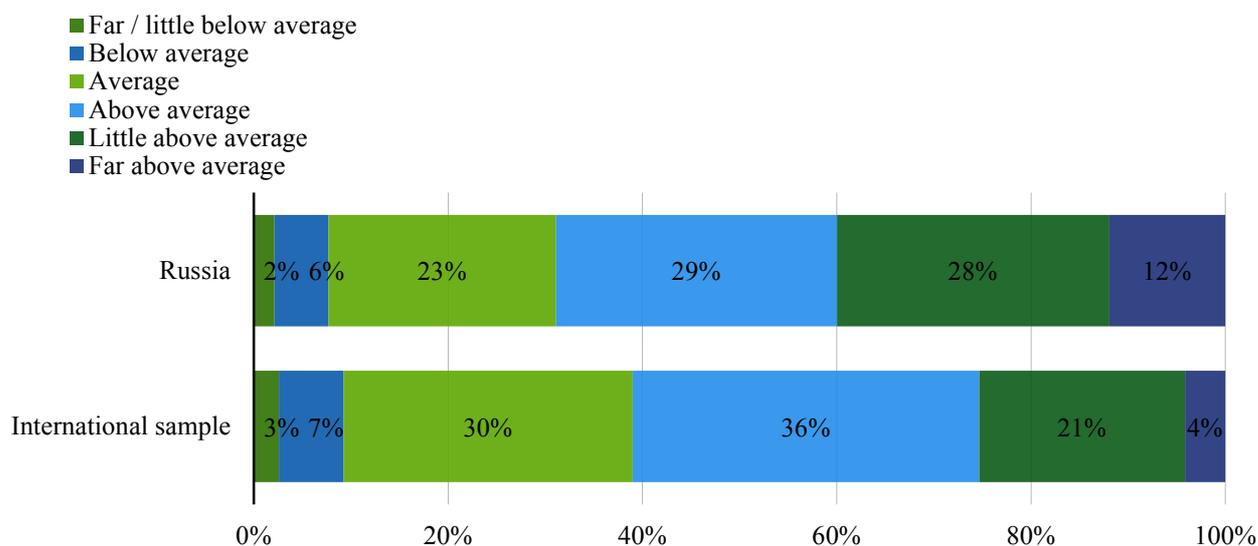


Fig. 7. Students Performance

## 4. MAIN RESULTS OF THE STUDY

### 4.1. Career Expectations

Choosing a career — one of the most important steps in any person's life, which is especially important for students who are just beginning their professional development. Everyone has his own plans. Some want to get into a huge international company immediately after graduation to gain experience and establish him/herself as a good specialist. But many students may have different ideas about career development in 5 years. That is why the study participants were asked to answer two questions: which career path do they intend to pursue right after graduation, and which career path 5 years after graduation. Answers to questions were provisionally classified into four groups depending on the chosen career path: *employee* (employed or engaged in an existing company), *company founder/entrepreneur* (an entrepreneur who creates new business), *successor* (inherits and takes over management of the family business) and *other* (those who are still undecided, or who have other career preferences).

The detailed description set forth below in Table 4 shows that the majority of students in Russia expect to get paid employment immediately after graduation (75.32%), which practically coincides with the answers from the international sample (79.6%).

Many students would prefer to work in large companies or medium-sized firms. Only about 12% of Russian respondents are ready to go to work in small firms with up to 50 employees. 9.46 % of students want to create their own business from scratch after their graduation, which is slightly higher than in the world (6.5%). Career of successor to the existing family business is set for a little less than 4 % of respondents in Russia and in the international sample percentage is even less — 1.76 %. 11.25% in Russia have not yet decided the career plans, which is comparable with the international index.

It can be noted that the distribution of the career aspirations of students immediately after graduation is very insignificantly different in Russian sample. However, the situation is different if to analyze career preferences 5 years after graduation. More than half of Russian stu-

dents want to found their own company, i.e. become entrepreneurs, and in the international sample the figure is just over 30%. The number of students willing to work for wages in Russia reduces almost three times — up to 28.26 %, while worldwide the figure drops only to 50.57 %.

Table 4

Career Expectations: Russian and International Sample Comparison

Which career path do you intend to pursue right after completion of your studies, and which career path 5 years after completion of studies?		Russia		International sample	
		<i>Right after completion of studies, %</i>	<i>Five years after completion of studies, %</i>	<i>Right after completion of studies, %</i>	<i>Five years after completion of studies, %</i>
<b>An employee...</b>		<b>75.32</b>	<b>28.26</b>	<b>79.6</b>	<b>50.57</b>
1	...in a small firm (1-49 employees)	11.8	1.49	17.01	3.93
2	...in a medium-sized firm (50-249 employees)	25.54	3.43	20.72	7.85
3	...in a large firm (250 or more employees)	28.33	17.93	22.	18.98
4	...in a non-profit organization	2.16	1.33	3.24	2.86
5	...in Academia (academic career path)	5.11	2.53	6.39	6.77
6	...in public service	2.38	1.55	10.24	10.18
<b>A founder (entrepreneur)...</b>		<b>9.46</b>	<b>52.64</b>	<b>6.57</b>	<b>30.67</b>
7	...working in my own firm	9.46	52.64	6.57	30.67
<b>A successor...</b>		<b>3.98</b>	<b>4.91</b>	<b>1.76</b>	<b>4.3</b>
8	...in my parents'/family's firm	2.91	2.64	1.33	1.96
9	...in a firm currently not controlled by my family	1.07	2.27	.43	2.34
<b>Other / Don't know yet</b>		<b>11.25</b>	<b>14.18</b>	<b>12.07</b>	<b>14.46</b>

Percentage of students wishing to become successors is almost the same and is just over 4%. The level and the number of undecided voters is approximately the same: a little over 14% (see Fig. 8).

Fig. 9 shows visual comparison of the four career groups. Percent of those willing to work as

an employee in 5 years in small and medium-sized businesses reduces by almost 10 times, and the share of potential entrepreneurs increases from 9.46% to 52.64%, which may indicate of positive attitude of the Russian students towards entrepreneurial career.

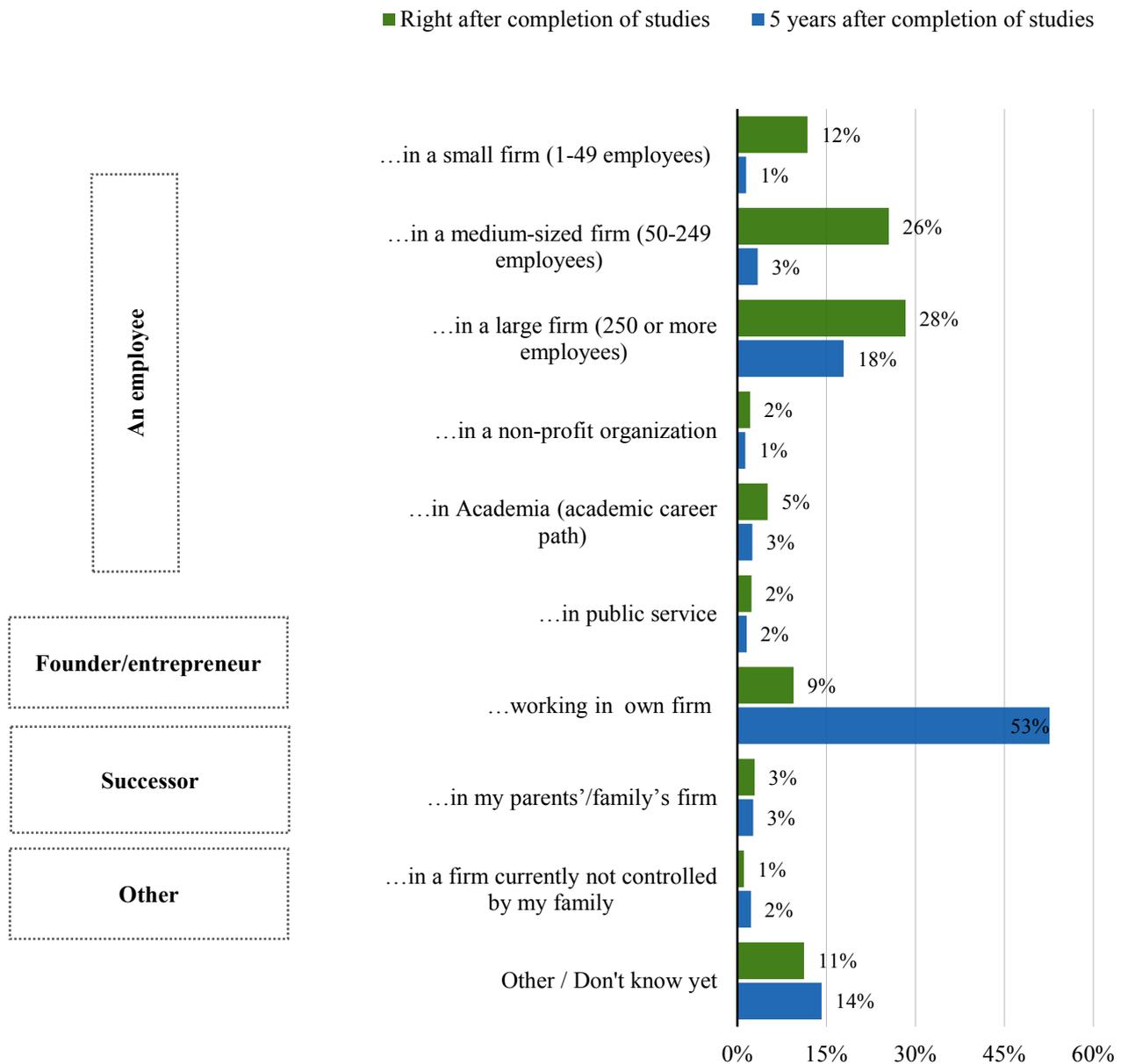
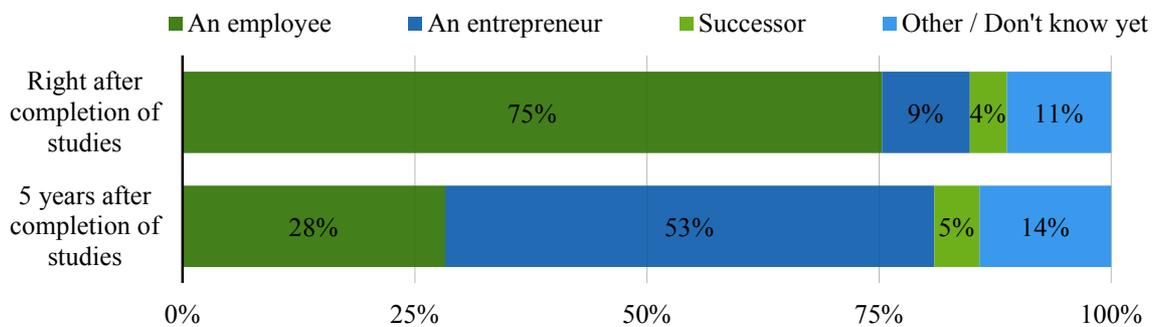


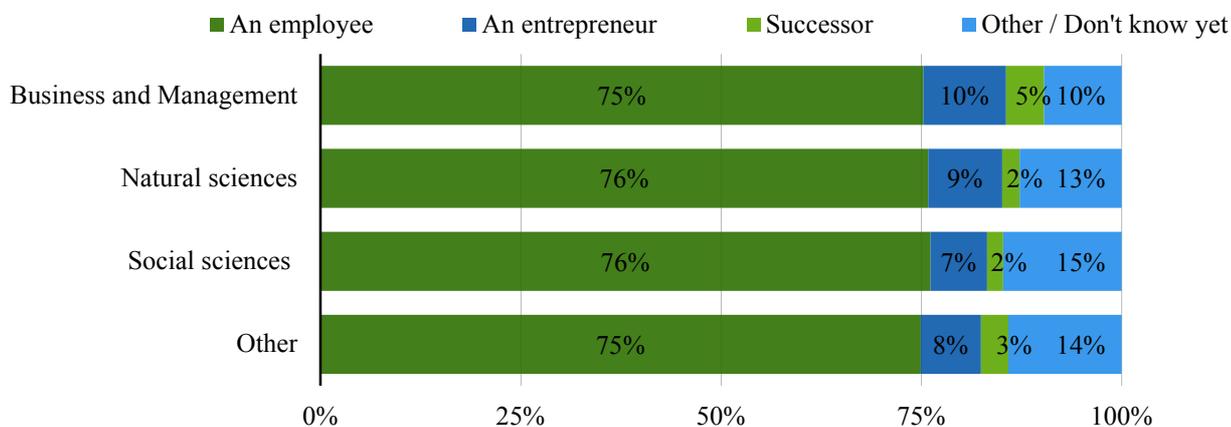
Fig. 8. Changes in Career Expectations among Russian Students



**Fig. 9.** Career Expectations in Groups of Russian Students

GUESSS data allow to give more detailed description of the differences between the students opting for a particular career after graduation. Immediately after graduation, which is pre-

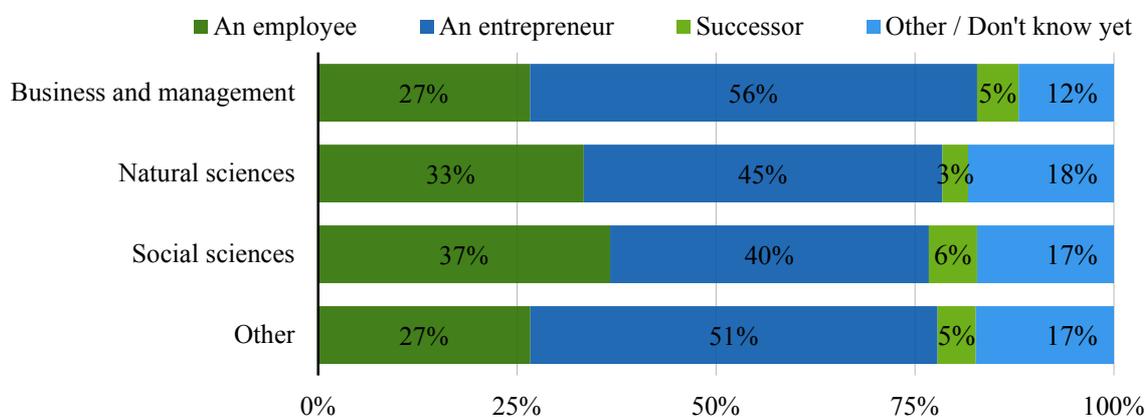
sented in Fig. 10, the ratio of career preferences of students in groups of social, natural and economic sciences is quite the same: the majority (over 75%) see themselves as employees.



**Fig. 10.** Career Choice Intentions of Russian Students Right after Graduation and their Field of Studies

5 years after completion of studies, the largest share of those willing to be employed is accounted for students who studied social studies

(37%), and the lowest — business and management (27%), as in this case 56% see themselves as entrepreneurs (Fig. 11).



**Fig. 11.** Career Choice Intentions of Russian Students 5 Years after Graduation and their Field of Studies

In recent years there has been a growing interest among researchers to gender entrepreneurship. Fig. 12 shows that at equal ratio of those willing to become successors and undecided with their choice immediately after graduation, the percentage of those willing to become entrepreneurs is higher among men (15% vs. 7%), while among women the

percent of those who intend for a career of an employee is higher (78% vs. 69%). 5 years after completion of their studies career choice intentions of students change (Fig. 13). Regardless of gender, only about 28% of respondents see themselves as employees, and the percentage of potential entrepreneurs among men and women becomes equal.

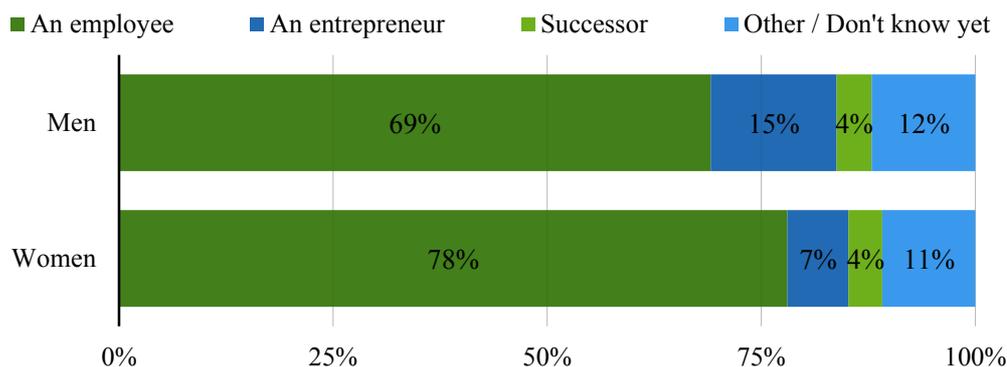


Fig. 12. Career Choice Intentions of Russian Students Right after Graduation and Gender Composition

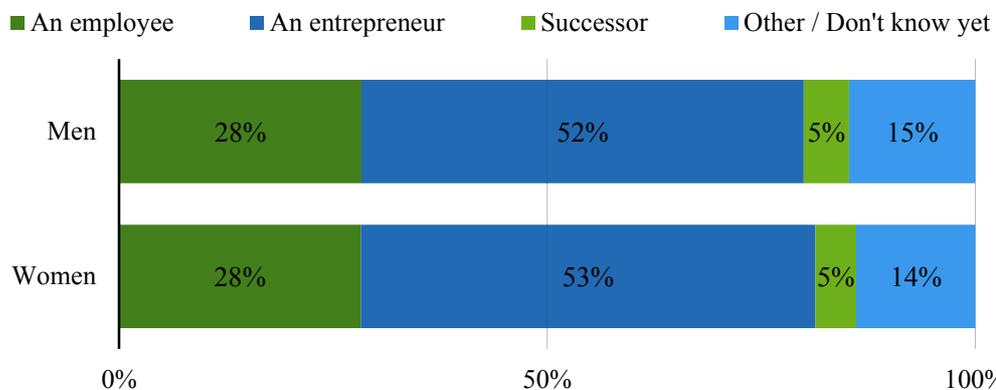


Fig. 13. Career Choice Intentions of Russian Students 5 Years after Completion of their Studies and Gender Composition

Since Russia was involved in GUESSS project twice, it is important to understand how the intentions of students changed in two years. Table 5 shows comparative figures for 2011 and 2013, which allows to track the dynamics of career preferences among students.

Note that the percentage of students who are considering a career of entrepreneurs for themselves 5 years after completion of their studies, in Russia increased by 5.4%, while in the international sample it was reduced to 3.7%.

Table 5

Career Choice Intentions of Russian Students: Comparison of Russian and International Sample for 2011 and 2013

Career intentions	Russia				International sample			
	2013	2013	2011	2011	2013	2013	2011	2011
	<i>Right after completion of studies, %</i>	<i>Five years after completion of studies, %</i>	<i>Right after completion of studies, %</i>	<i>Five years after completion of studies, %</i>	<i>Right after completion of studies, %</i>	<i>Five years after completion of studies, %</i>	<i>Right after completion of studies, %</i>	<i>Five years after completion of studies, %</i>
Employee	75,3	28,3	66,6	28,6	79,6	50,6	67,8	38,2
Founder (entrepreneur)	9,4	52,6	11,7	47,2	6,6	30,7	11	34,4
Successor	4	4,9	5,9	7,2	1,8	4,3	3,9	8,9
Other / don't know yet	11,3	14,2	15,8	17	12	14,4	17,3	18,6

## 4.2. Main Factors of Career Choice Intentions Development

### 4.2.1. Entrepreneurial Intentions

Since the focus of GUESSS study is the entrepreneurial component, before moving on to consider as a whole the main factors of career choice intentions development among students, it is necessary to draw attention to “entrepreneurial intentions” themselves. Personal characteristics, person’s willingness to take action play a crucial role in the development of entrepreneurial intentions. Rating entrepreneurial intentions allows to evaluate “the entrepreneurial spirit” of students, avoiding their differentiation from the responses “yes” or “no” to the question whether students are going to become entrepreneurs or not. Such an approach is justified (Zellweger et al., 2011), since otherwise it is difficult to identify those who are already serious about the entrepreneurial career, but consider it as “plan B”.

Entrepreneurial intentions were measured using

six statements: “I am ready to do anything to become an entrepreneur”, “My professional goal is to become an entrepreneur”, “I will make every effort to start and run my own firm”, “I am determined to create my firm in the future”, “I have very seriously thought of starting a firm”, “I have the strong intention to start a firm someday”, “I have a serious intention to start a business one day” (Linan, Chen, 2009). Students were asked to assess the degree of agreement with these statements on a 7–point scale: 1 — strongly disagree, to 7 — completely agree. Based on the responses, indices of entrepreneurial intentions were calculated as the arithmetic average of all responses. As Fig. 14 shows, the highest index is typical for emerging economies (Mexico, Colombia, Argentina, Malaysia and Russia), and the lowest — for developed economies (Switzerland, Germany, Japan, Denmark).

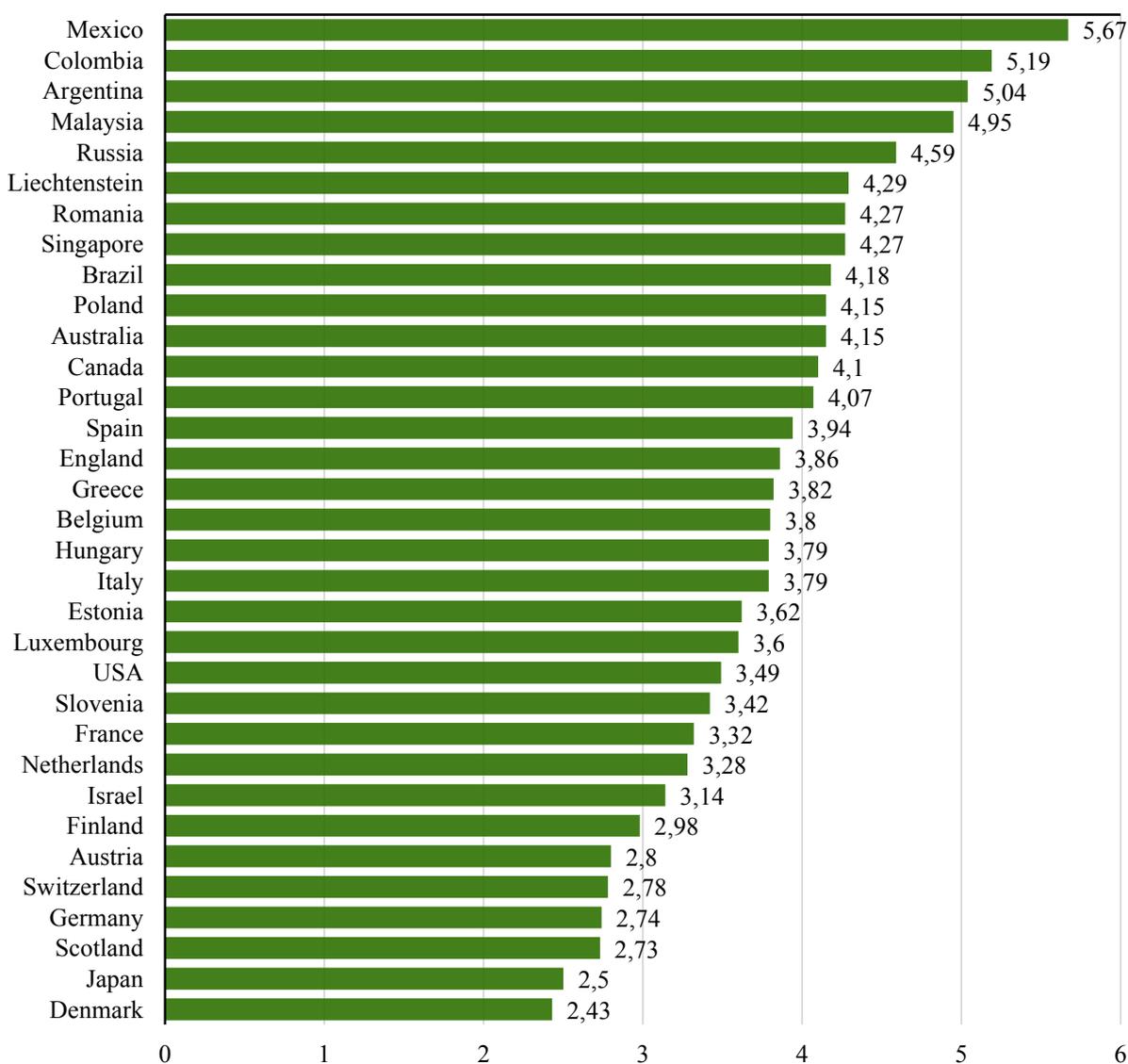
In Russia, the index is 5.59, and the average for the entire sample — 3.8. The largest index of entrepreneurial intentions is typical for students studying business and management — it is 4.79, and the lowest

(3.74) — for social sciences (Fig. 15). Considering gender differences the general trend may be noted: on average the index of entrepreneurial intentions is lower among female students (Fig. 16).

#### 4.2.2. Personal Motives

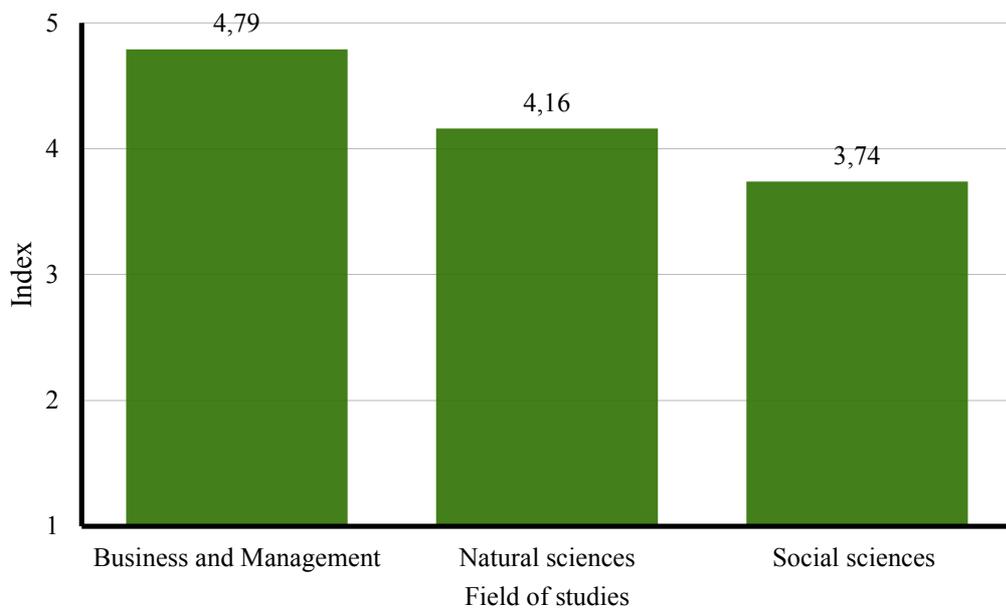
Career plans of students are largely driven by those motives that guided them while choosing a career (Fig. 17). According to information received,

the main motivation is the desire to realize their dreams. Then comes the desire to have an exciting, rewarding and promising job.

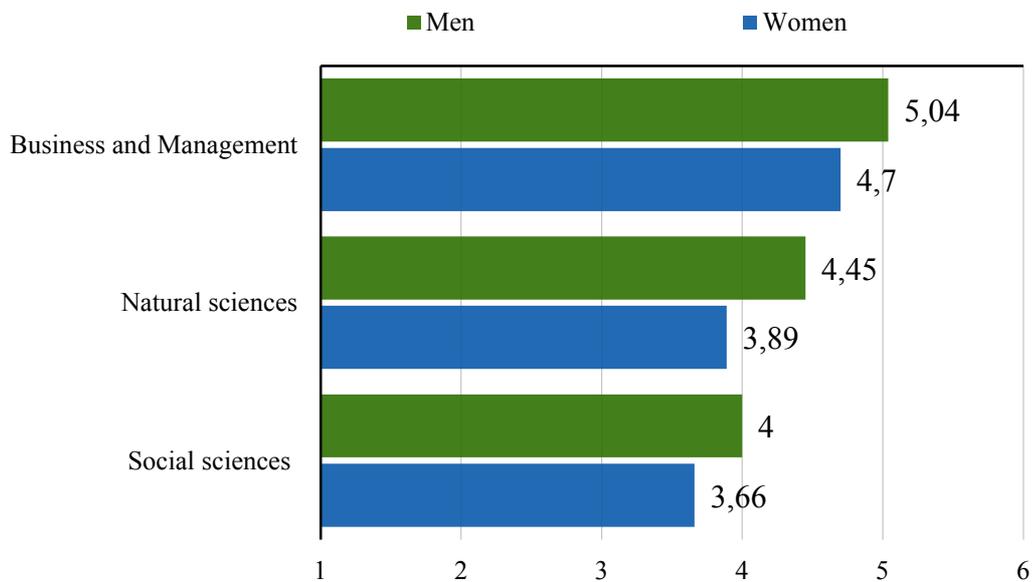


**Fig. 14.** Entrepreneurial Intentions Index by Country

*Note: Index for Nigeria was not calculated, as only 7 questionnaires were obtained from this country.*



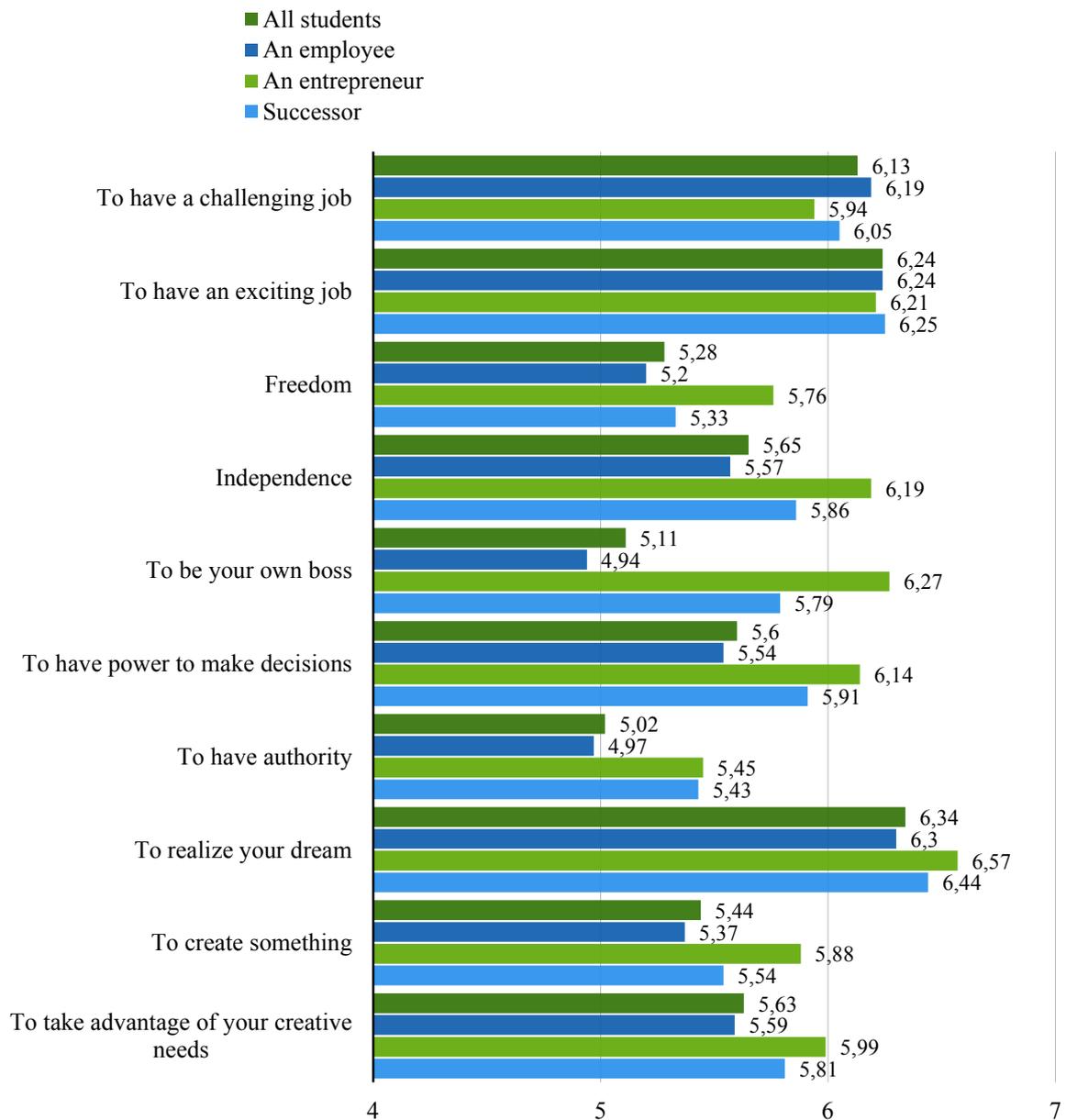
**Fig. 15.** Entrepreneurial Intentions of Russian Students and their Specialization



**Fig. 16.** Entrepreneurial Intentions of Russian Students and Gender Composition

It should be also noted that in Russia for those students who plan to become entrepreneurs after graduation, the main driving motives are striving to realize their dreams, desire to work for themselves, have a exciting job, be independent and

make their own decisions. In the international sample the priorities are slightly different: the desire to realize their dreams, to be independent and to create something new, to be free, the desire to use their own creative ideas and make independent decisions.



**Fig. 17.** Career Motives among Russian Students

*Note: Scale from 1 to 7: 1 — not important at all, 7 — very important.*

### 4.2.3. The University Environment

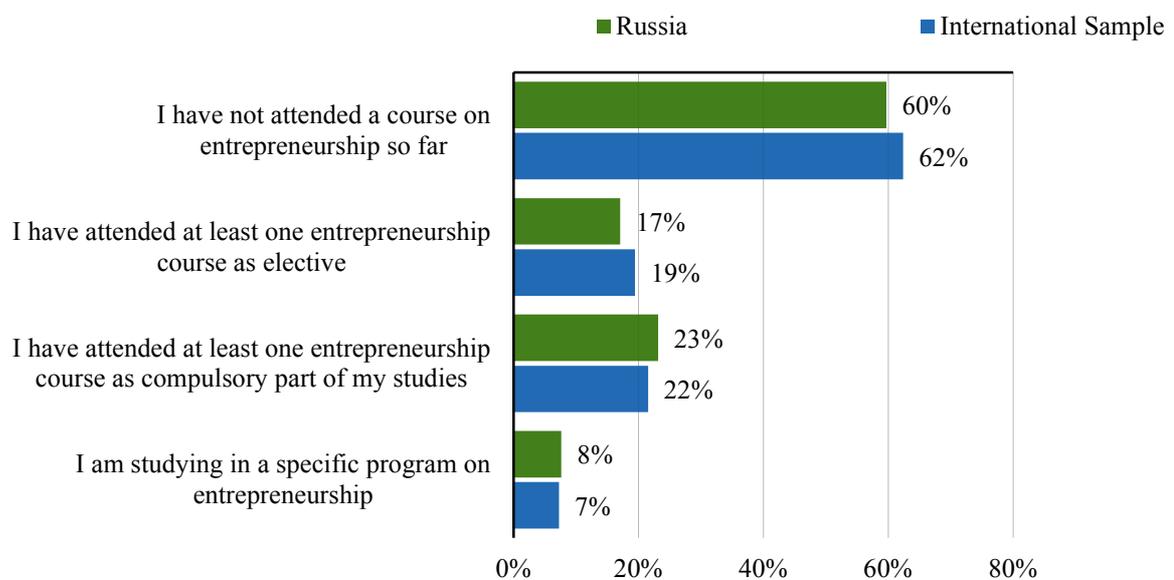
Students are traditionally the most dynamic part of society that has a high entrepreneurial potential. In Russia, every second student, who participated in GUESSS study, is going to become an entrepreneur in 5 years after completion of their studies, but only 9.46% are ready to start their own

business right after graduation, which may indicate a positive assessment of their own abilities to become an entrepreneur only after a certain experience as a hired employee. Thus, the entrepreneurial potential of students is “deferred” for some time. This solution can be caused by two reasons. First,

young people have not got enough skills and knowledge on how to organize their business and they are not willing to take a risk associated with entrepreneurial activity. Second, the schools in which students are taught, do not always take into account the need to develop entrepreneurial skills. In this regard, GUESSS project focused on the role of the university as a learning environment can partly cause entrepreneurial intentions and foster entrepreneurial skills development.

Entrepreneurship education is one of the most important elements in building entrepreneurial ecosystem, but in existing educational programs this is often not covered. As Fig. 18 shows, 60% of students did not have courses in entrepreneurship at all, alt-

hough the rest had at least one optional course. Furthermore, according to our data, in Russia students are willing to devote more than 30% of their training to courses on entrepreneurship, and the average index in the international sample is just over 25%. The survey results indicate a fairly low intensity of studying subjects related to entrepreneurship. It is important to note that among the students in “Business and Management” the structure of the responses is slightly different from the structure on the total sample: 50% of respondents spend less than 28% of their study time on courses in entrepreneurship. It turns out that even in the specialized areas further development of the entrepreneurial component within the educational programs is required.



**Fig. 18.** Courses in Entrepreneurship at the University

University environment can promote the development of entrepreneurial potential of students, but it is typical only for few universities that take into account this trend in the organization of the educational process. Students were asked to evaluate on a 7-point scale (1 — strongly disagree, 7 — strongly agree) how much they agree or disagree with the following statements: “the atmosphere at my university inspires me to develop ideas for new businesses”, “there is a

favorable climate for becoming an entrepreneur at my university”, “at my university, students are encouraged to engage in entrepreneurial activities”. Based on these three indicators the average value characterizing the business environment of the university was calculated. The lowest rate was among the students studying the social sciences, and the greatest — business and management (Fig. 19). The overall rate among all the respondents was 4.02, which is slightly below the

index estimating the university environment in Russia, which was 4.27. Fig. 20 shows the comparison of performance between Russian students in four groups of career intentions. The index of business environment of the university is lower among the potential entrepreneurs who are going to start their own busi-

ness right after the completion of their studies than among those who plan to work as employees. However, among students who want to become entrepreneurs in 5 years, the average index was higher which reveals quite contradictory trends.

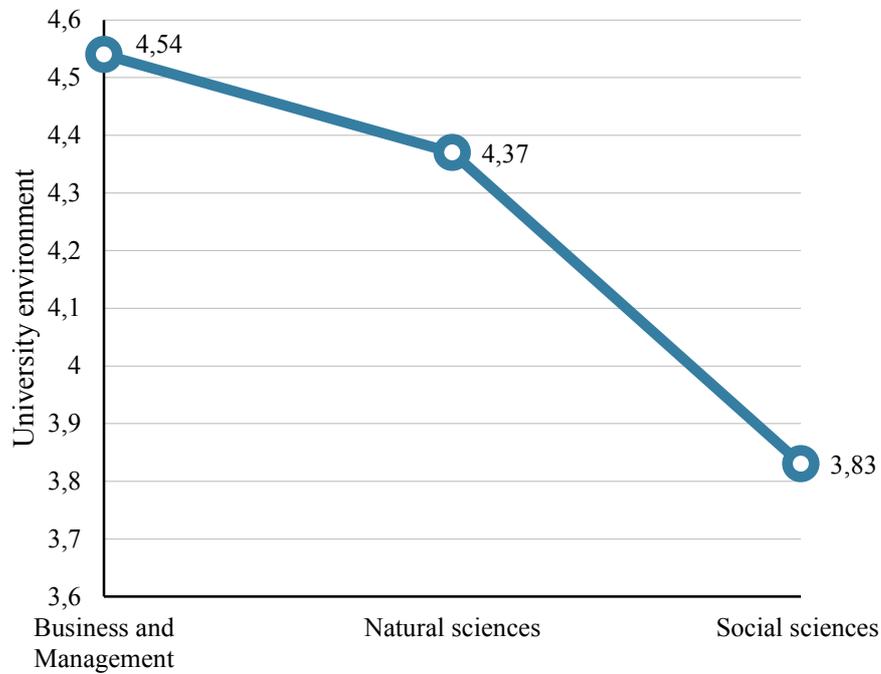


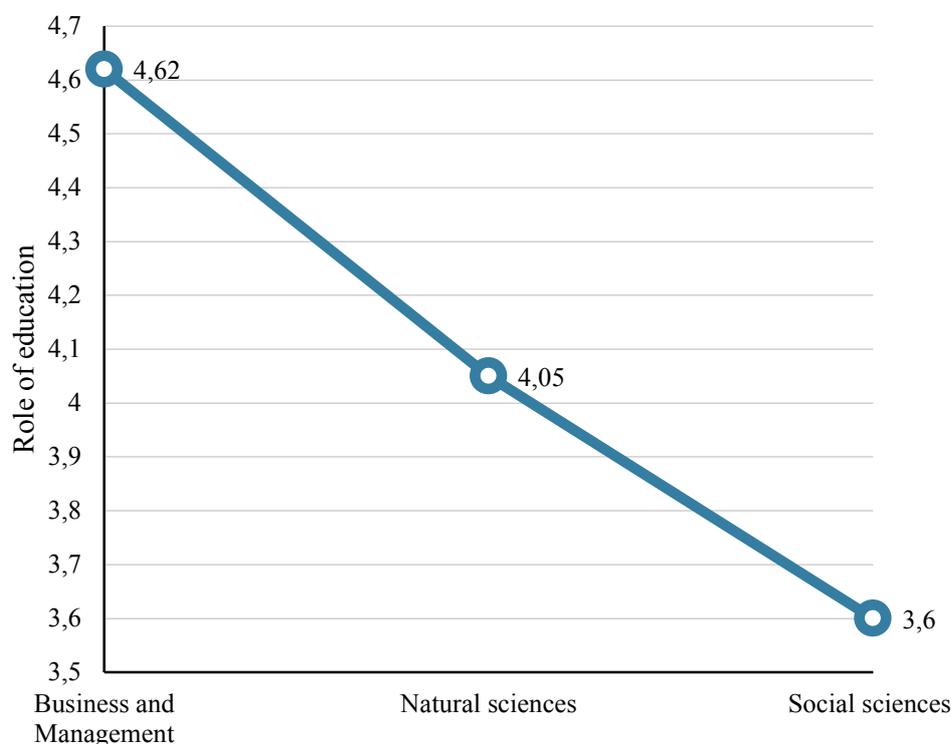
Fig. 19. University Environment and Specialization of Russian Students



Fig. 20. University Environment and Career Intentions of Russian Students

In GUESSS project we are interested not only in the availability of courses in entrepreneurship and business climate assessment at the university, but also how the courses and classes taken contribute to the development of entrepreneurial component. Similarly to the university environment assessment, an aggregating indicator was established to assess the role of education on the basis of the degree of students agreement with statements: “The courses and offerings I attended...” (a) 1) “increased my understanding of the attitudes, values

and motivations of entrepreneurs”, 2) “increased my understanding of the actions someone has to take to start a business”, 3) “enhanced my practical management skills in order to start a business”, 4) “enhanced my ability to develop networks”, 5) “enhanced my ability to identify an opportunity”. Indexes could be from 1 to 7. On average it was 4.01 in international sample, while in Russia — 4.43. Actually the index is by one higher among students who are trained in “Business and Management” than among those studying social sciences (Fig. 21).



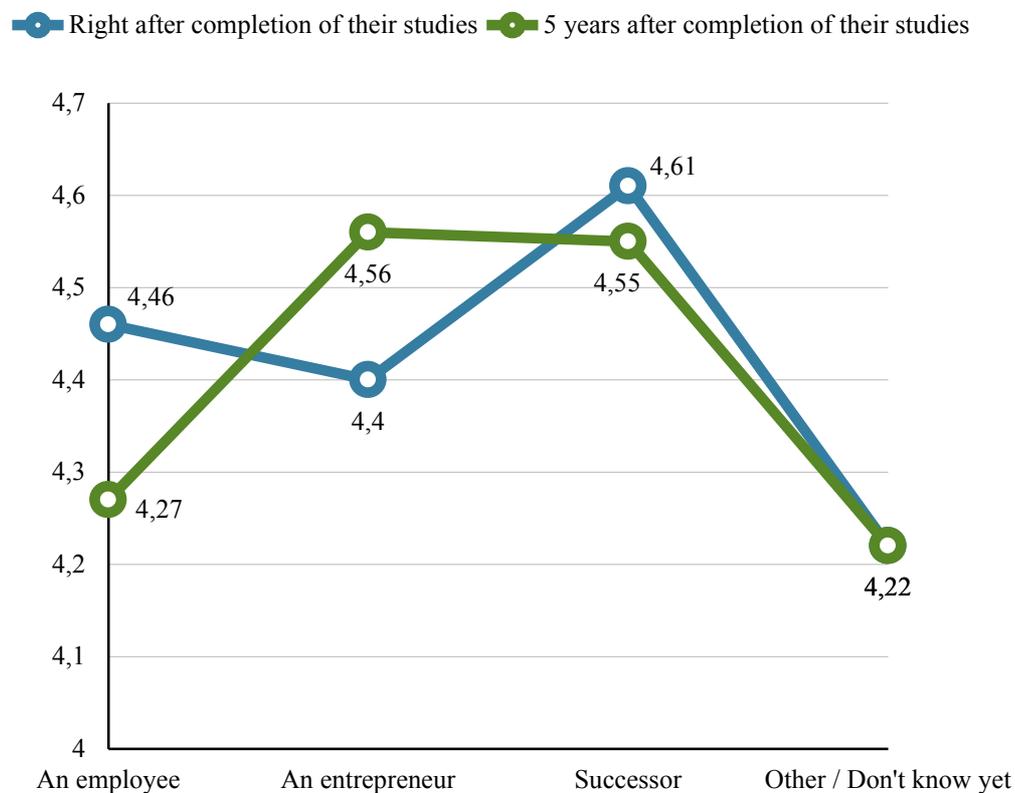
**Fig. 21.** Learning at the University and Russian Students Field of Studies

When comparing indexes and career plans it could be noted that the evaluation of the role of education is higher for those students who plan to become successors immediately after completion of their studies, which may be due to the established notion of the future career and understanding of what knowledge they need to get this at the univer-

sity (Fig. 22). However, on the whole, this figure for all categories in the range from 4.22 till 4.61, indicating a fairly reserved evaluation of the training component in the development of important entrepreneurial skills. It is also interesting to note that among those Russian students who see themselves as employees right after the completion of

their studies, many agree that the training helped them to improve the ability to develop personal contacts. Those students who see themselves as entrepreneurs believe that classes have deepened their

understanding regarding the actions to be taken to set their own business, and in the international sample students say that training helped them understand how to identify business opportunities.



**Fig. 22.** Studying at the University and Career Intentions of Russian Students

Prominent role in the formation of entrepreneurial intentions of students can play the institutional environment of the university as a place for studying, shared norms and values may indirectly affect the perception of various career prospects by students. If earlier university was considered to be more a research and training institute, now more attention is paid to its role in knowledge commercialization (Zaharia, Gilber, 2005). Broader view of the institution will contribute to this when setting up your own business is considered as part of the training. In addition, opening of the firm is organically combined with the overall mission of any ed-

ucational institution, which is to promote the economic development of the country.

As part of this project Russian research team added three sets of questions for the survey of Russian students in order to better understand the specifics of the Russian institutional environment at the university. Institutional environment of the university was studied in three basic dimensions: regulatory, normative and cognitive (Iakovleva, Oftedal, Foss, 2014). Regulatory measurement includes rules, formal procedures, policies of the university in the field of entrepreneurial aspects of students activities.

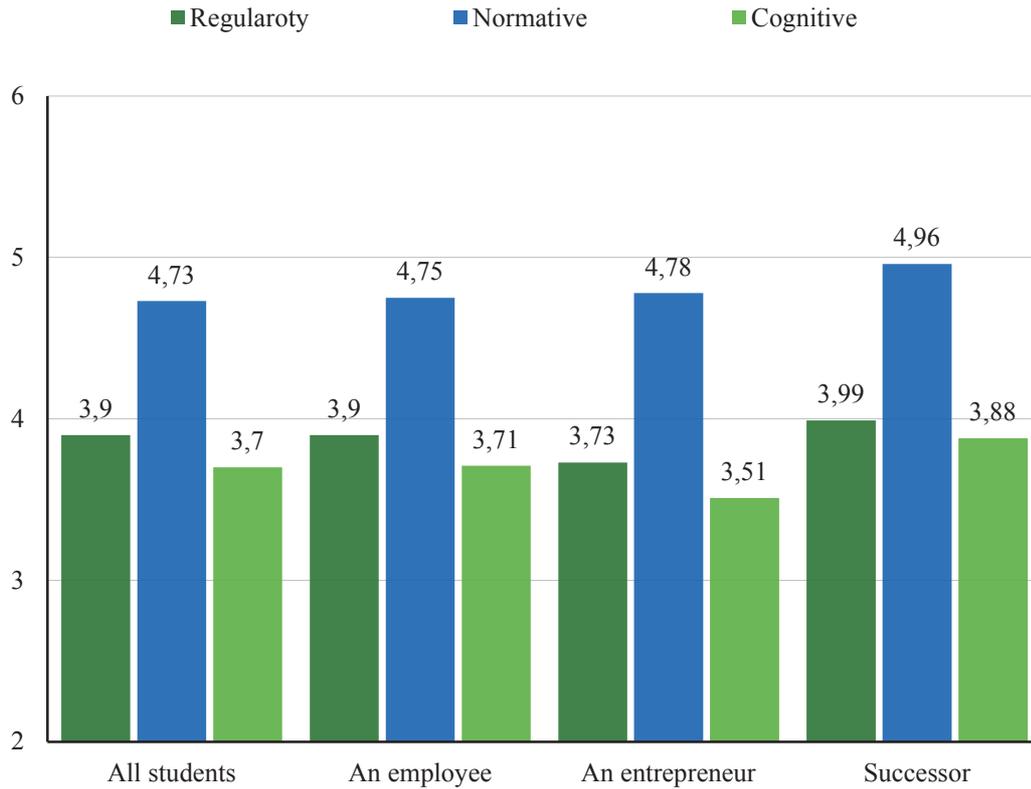
Normative dimension refers to shared values and attitudes towards entrepreneurship at the university. Cognitive aspect reveals the presence of skills and knowledge in relation to starting your own business. To measure the regulatory aspects the students were asked to assess their degree of agreement on a 7–point scale with statements about the university environment: “Sponsorship for students entrepreneurial activities”, “Sponsorship for business plan/pitch competitions”, “Sponsorship for startups (faculty and student startups)”, “Policies rewards students who engage in entrepreneurial activities”. To measure the normative dimension a number of statements that characterize the attitude towards entrepreneurship has been proposed: “Those that start their own businesses are respected”, “Fellow students look up to those who develop their own ideas”, “Entrepreneurial initiatives are seen as the “road to success”, “Starting your own business is a respected career path”, “Fellow students look up to those who have many ideas”. Cognitive aspect was analyzed on the basis of agreement with a number of statements about the knowledge of fellow students: “My fellow students know how to handle the risks associated with a startup”, “My fellow students know the procedures to start up their own businesses”, “My fellow students have the skills to start up their own businesses”, “My fellow students know how to develop their own ideas”, “My fellow students know who may be helpful in launching a start-up”. As a result, based on the arithmetic average of the responses institutional indicators characterizing the environment of the university were calculated for each dimension. Fig. 23 shows the performance of all students and career groups.

Regulatory aspect was from 3.73 to 3.99. It reflects the existence of procedures supporting entrepreneurship at the university, including such

as support of various entrepreneurial activities and organization of business plan competitions. Students were quite reserved while assessing this component. However, having examined more detailed data on the distribution of responses, we should note that more attention at the universities is paid to the organization of business plan competitions and business projects, while average estimations are quite at the same level, regardless students' career plans after completion of their studies.

Normative aspect of the institutional environment received the highest rate of all three — from 4.73 for the entire sample till 4.96 for the future successors. Attention was paid to the image of an entrepreneur formed by fellow students. Many of the respondents believe that start their business is considered as a good career in the environment of their fellow students, and people who start business deserve respect. Pretty high rates in this part indicate the formation of positive attitudes towards entrepreneurs in the eyes of many students, particularly evident among potential entrepreneurs and existing business successors.

Cognitive aspect, the main task of which is to understand the knowledge and experience of fellow students in the field of entrepreneurship and to evaluate the degree of entrepreneurial component in the environment of the university. This figure took the lowest values for these groups of from 3.51 to 3.88. In general, respondents gave fairly neutral responses, however, evaluation of knowledge of potential successors of the fellow students was slightly higher than the estimates, which gave the students who were planning to become employees or entrepreneurs, and the lowest estimates of knowledge of fellow students in starting their own businesses gave would-be entrepreneurs.



**Fig. 23.** Institutional Environment at the University and Career Intentions of Russian Students

Based on these results, logical question is, how important for students when choosing a university is its entrepreneurial reputation. Everyone is familiar with vivid examples of Stanford University, Harvard University and Massachusetts Institute of Technology, which were able to establish entrepreneurial university ecosystem. According to the survey, more than 50% of Russian students when choosing a university were guided by “strong reputation of the University in general”, the same motive is dominant in the international sample, but the percentage is lower — less than 35 %, and strong entrepreneurial reputation of the university turned im-

portant to less than 5 % (Fig. 24). For each fourth student in the international sample an important criterion was geographical proximity to hometown (in Russia this motive is characteristic of more than 11% of respondents). This trend is understandable: many students from different cities of Russia tend to go to major universities, most of which are located in Moscow, St. Petersburg and other major cities, so the distance factor often is not the key one. In addition, when choosing university attractiveness of the city and the costs associated with training are not considered by students, which is clearly demonstrated in Fig. 24.

#### 4.2.4. Family

In the academic world the debate on the influence of professional orientation of parents on the formation of career intentions of their children does not stop. In general, the studies usually prove the

fact that, if the parents are entrepreneurs, it is likely that their children will follow their example (Laspi- ta et al., 2012).

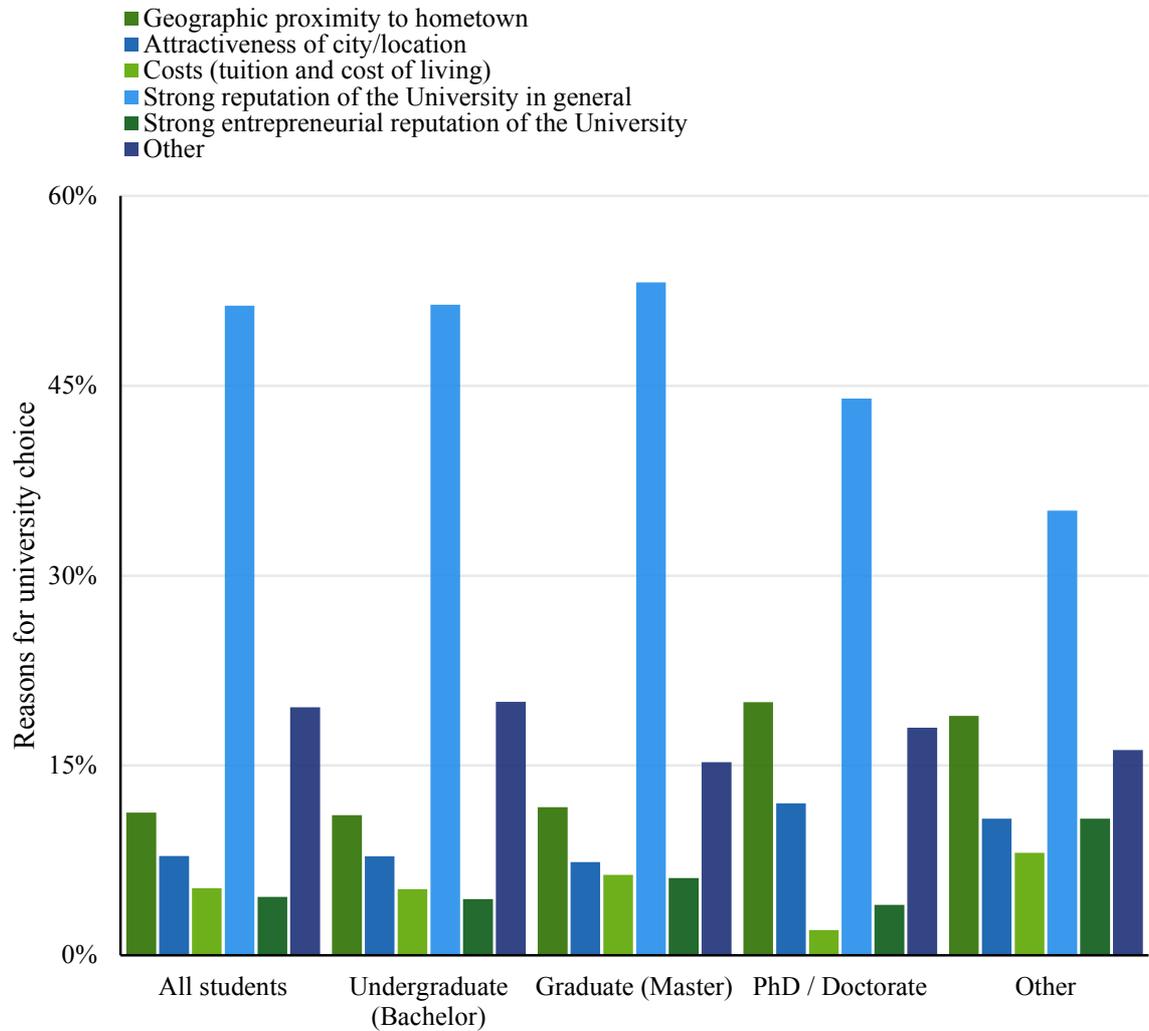


Fig. 24. Main Reasons of University Choice among Russian Students at Different Educational Stages

GUESSS questionnaire included questions whether students' parents, or at least one of them, are currently entrepreneurs (Fig. 25). For most of them (71%) the activity of parents is not related to entre-

preneurship, that repeats the trends of the international sample (68.7%). In Russia, for 5% of students both parents are entrepreneurs, which is also close to the overall index for all participants, which was 8.8%.

Fig. 26 shows comparison of career intentions of students immediately after graduation in two parts of the sample — those whose parents are entrepreneurs, and those whose parents are not entrepreneurs. However, contrary to expectations, the percentage of students who intend to become en-

trepreneurs in five years, is just over 50% in both groups. In the international sample the picture is slightly different: among entrepreneurial families 35% of the students see themselves as founders of their own businesses, and in non-business families the percentage of those who wish drops to 28%.

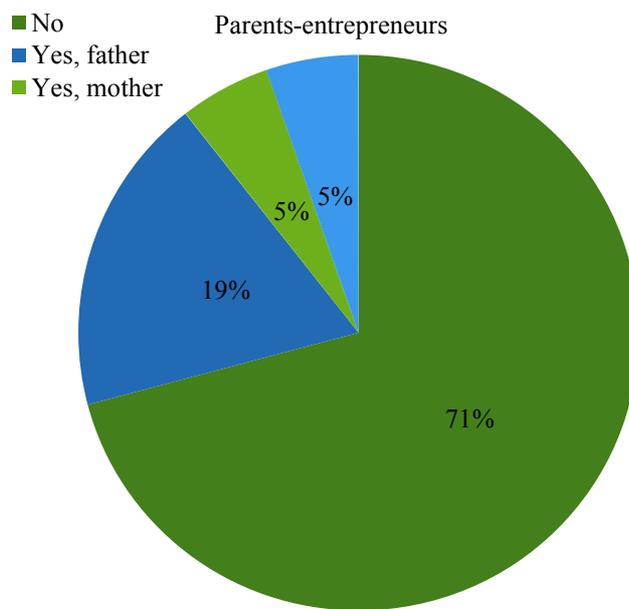


Fig. 25. Parents-entrepreneurs in Families of Russian Students

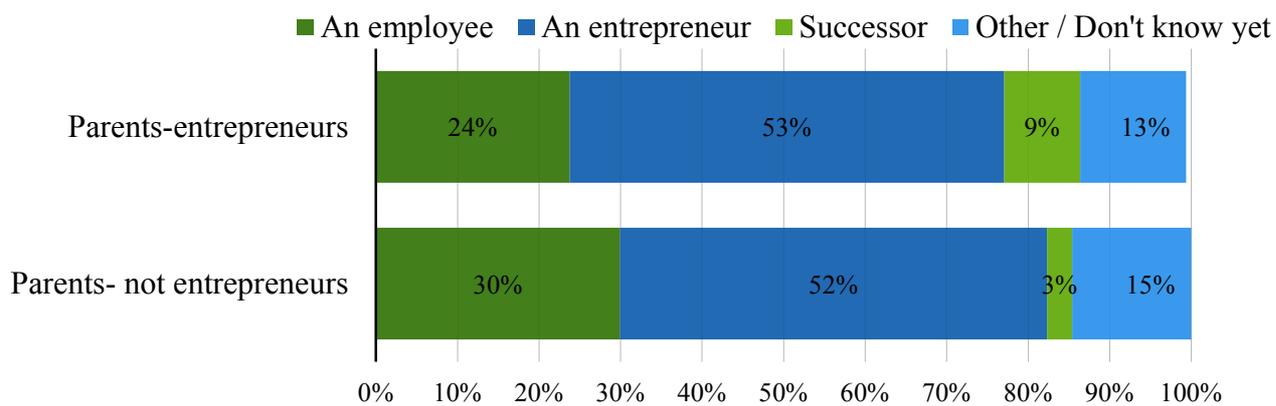


Fig. 26. Parents-entrepreneurs and Career Intentions of Russian Students 5 years after Graduation

#### 4.2.5. Social and Cultural Context

Most scholars agree that the process of decision-making is closely linked with the social and cultural context of the individual. In other words, social and cultural factors may have some influence on the formation of entrepreneurial activity. GUESSS project focuses on two aspects: the role of the immediate social environment and attitudes towards risk. Using the estimate of “subjective norms” in the theory of planned behavior (Ajzen, 1991), we can estimate the expected response of our relatives to the selected career path. In theory, it is believed that the higher is positive assessment of the reaction of the environment on certain actions, which is expected by an in-

dividual, the more likely planned activities will be implemented.

In the questionnaire, students were asked how people would react to their environment (family, friends and fellow students), if they have chosen career of an entrepreneur. They were asked to evaluate the reaction on a scale from 1 (very negative) to 7 (very positive) (Linan, Chen, 2009). Comparative results presented in Table 6 shows that students expect a positive reaction of their environment when selecting entrepreneurial career, and the average index for all three questions is slightly higher among Russian students equaling to 5.88 (compared to 5.53 in the international sample).

Table 6

Choosing a Career of an Entrepreneur and Reaction of the Environment

Attitude of the environment to entrepreneurial activities	Russia	International sample
Family	6	5,56
Friends	6,03	5,66
Fellow students	5,61	5,37
Index*	5,88	5,53

Note: Table presents average values; scale from 1 to 7: 1 – very negative, 7 – very positive; \* - Index is calculated as the arithmetic average based on the evaluation of the reaction represented by three categories: family, friends and fellow students

The second point in studying the social and cultural aspects — attitude to risk. Risk — an integral part of entrepreneurial activity. To assess risk perception, students were asked how much they agree or disagree with the following statements: “I consider starting up my own business to be very risky”, “I think it is dangerous to manage your own business”, “I believe that business ownership has high risk”. Assessment should have been given on a

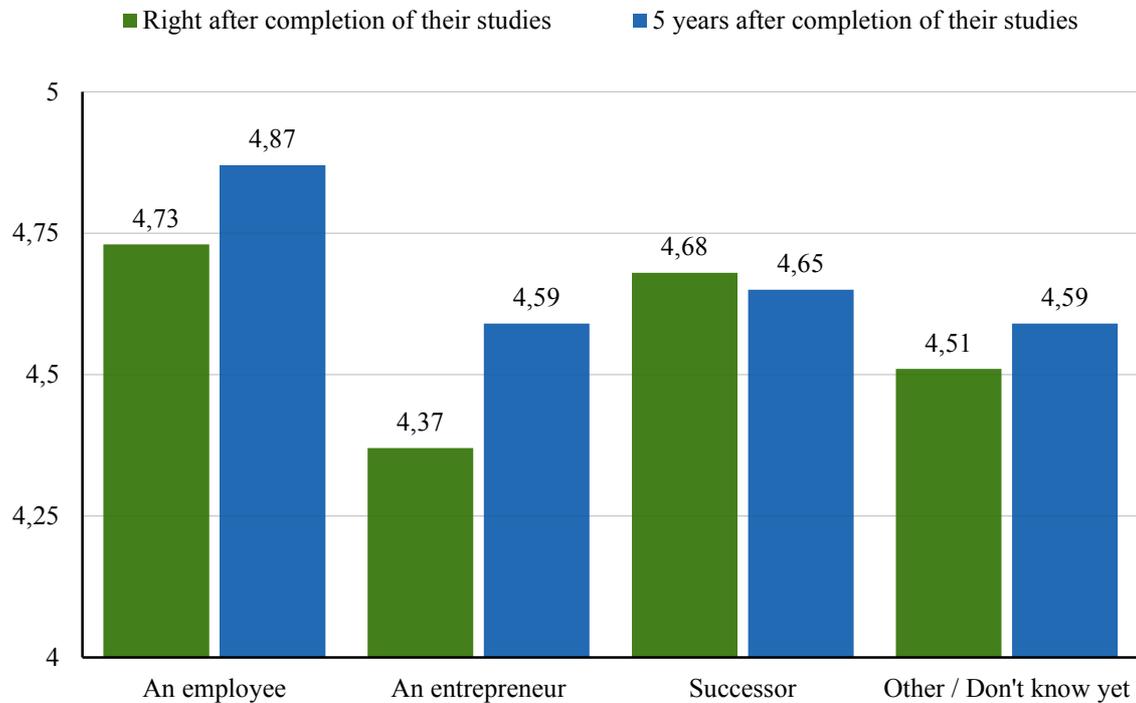
scale from 1 (strongly disagree) to 7 (strongly agree). On the basis of the responses, aggregated index was calculated as an average answer to these three questions. As a result, an index of attitude to risk among Russian students equaled to 4.67, and in the world — 4.85.

Fig. 27 shows the risk indexes specific to each career choice immediately after completion of studies, and 5 years after completion of studies. It

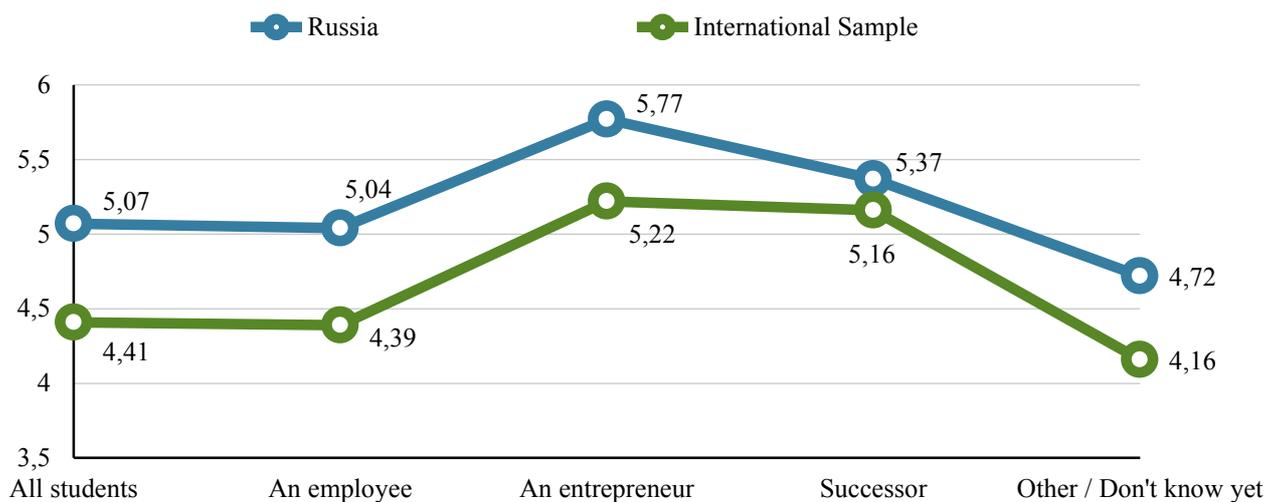
should be noted that, according to expectations, among entrepreneurs, this index is the lowest, and among employees — the highest.

Additionally, students were also asked whether they agree with this statement: “I am generally a person who is fully prepared to take risks”.

On average, the degree of readiness among Russian students was higher and amounted to 5.07, and on the international sample — 4.41. Dynamics of the indexes for career preferences is the same, however, the indexes themselves in the Russian sample are higher in all categories, which is shown in Fig. 28.



**Fig. 27.** Attitude to Risk and Career Intentions of Russian Students



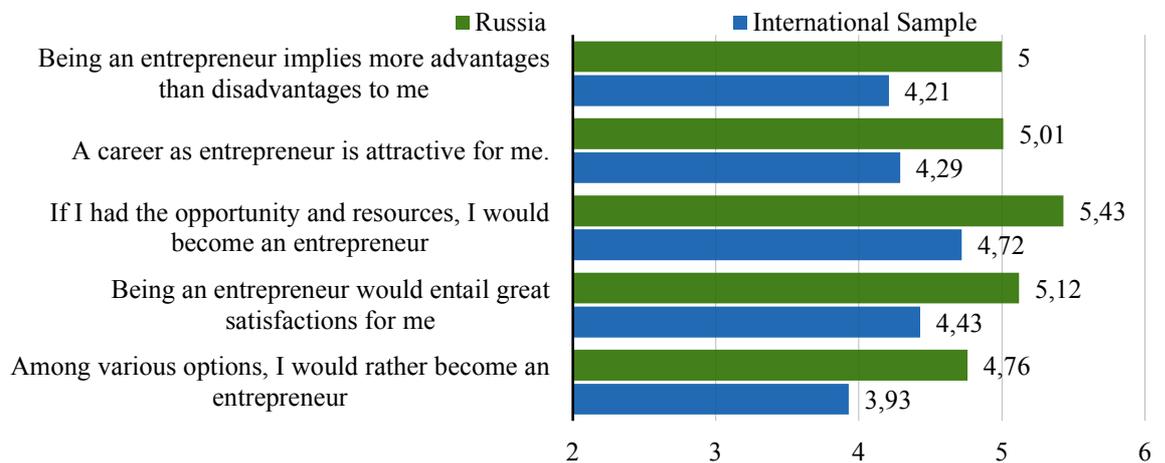
**Fig. 28.** Readiness to Take Risk and Career Intentions of Students after Completion of their Studies

#### 4.2.6. Attitude to Entrepreneurship

According to the theoretical model of the research (Fig.1), among major factors that can influence the formation of entrepreneurial intentions of students and strengthen their “entrepreneurial spirit” is the attitude to behavior (Linan, Chen, 2009) and perceived control over the behavior (Souitaris et al., 2007).

Work of an entrepreneur involves constant motion forward, improvement, development, ability to plan, set ambitious targets, organize work and to

find necessary resources and achieve new goals. Not everyone is ready for responsibility and independent decision-making, some people feel more comfortable as employees, which is confirmed by the study. Fig. 29 shows that among Russian students positive attitude towards entrepreneurship is strongly expressed in general. Note that many of the respondents in Russia largely agree that they do not have enough resources in order to realize their entrepreneurial potential.



**Fig. 29.** Attitude to Entrepreneurship

*Note: Figure shows average indexes; scale from 1 to 7: 1 — strongly disagree, 7 — strongly agree*

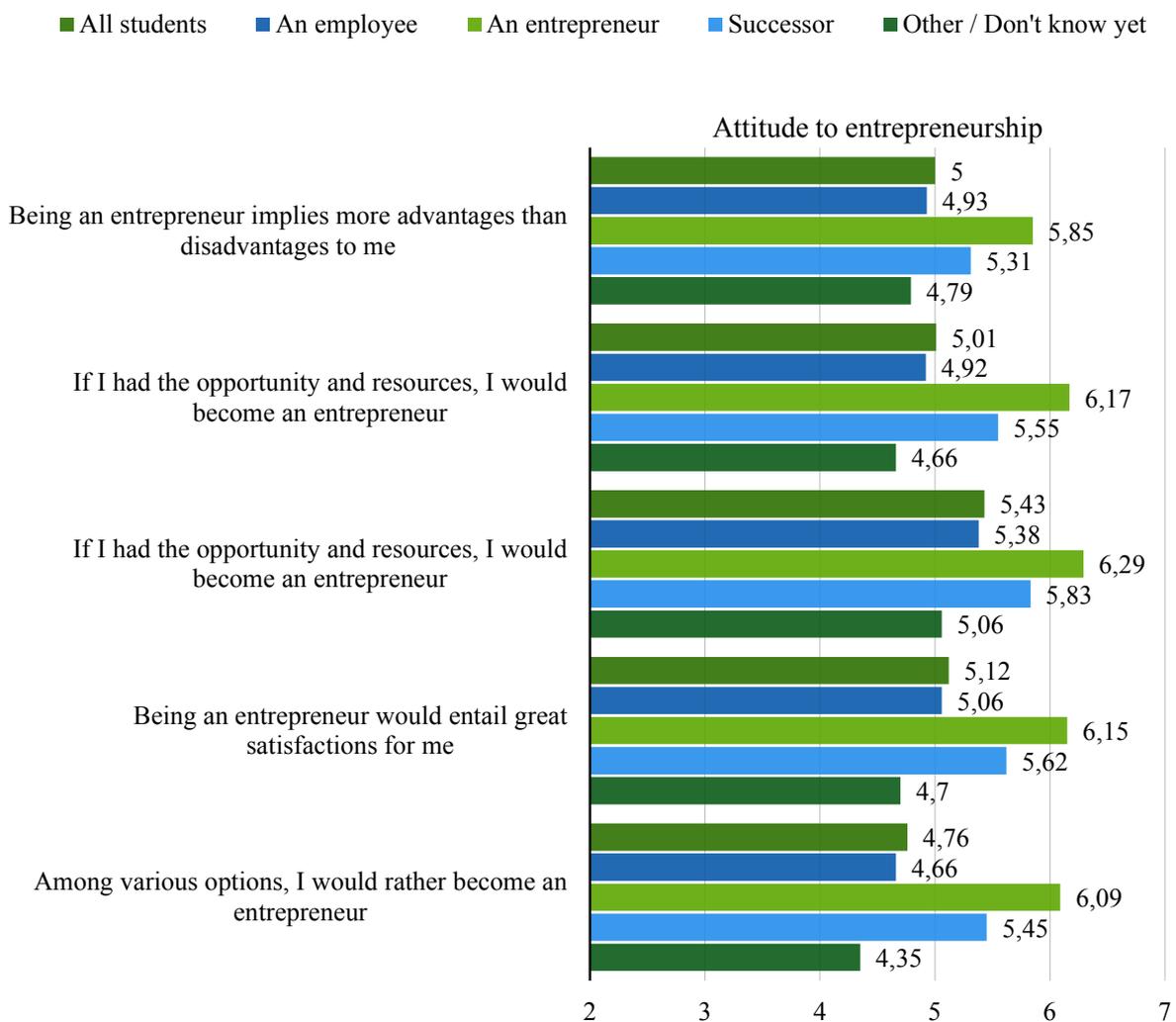
Future entrepreneurs and successors largely agree that the work of an entrepreneur carries more advantages than disadvantages, and consider a career of an entrepreneur attractive for themselves (Fig. 30). In the Russian sample of students who intend to become employees, there is a positive attitude towards the career of an entrepreneur compared with the international sample, but they believe they do not have sufficient resources to start a business. This factor can be considered as

one of the obstacles for building career of an entrepreneur that is recognized both by future entrepreneurs and successors, however, this does not stop them in the realization of the planned career plans. It should be added that Russian students agree that the work itself would bring them a greater sense of satisfaction, which indicates not only the positive attitude towards entrepreneurship, but also on the availability of the latent entrepreneurial potential among students.

#### 4.2.7. Perceived Control over Behavior

Not only the attitude towards entrepreneurship affects career preferences, but also the perception of how people assess their ability to start their own business at any time. To find the answer to this question the questionnaire asked students whether they agree with the statement (on a scale from 1 — strongly disagree to 7 — strongly agree): “For me, being self-employed would be

very easy”, “If I wanted to, I could easily pursue a career as self-employed”, “As self-employed, I would have complete control over the situation”, “If I become self-employed, the chances of success would be very high”. Based on the responses the index was also calculated as arithmetic for all four statements. Changes in indices for career groups are shown in Fig.31.



**Fig. 30.** Attitude to Entrepreneurship and Career Intentions of Russian Students after Completion of their Studies  
*Note: Figure shows average indexes; scale from 1 to 7: 1 — strongly disagree, 7 — strongly agree*

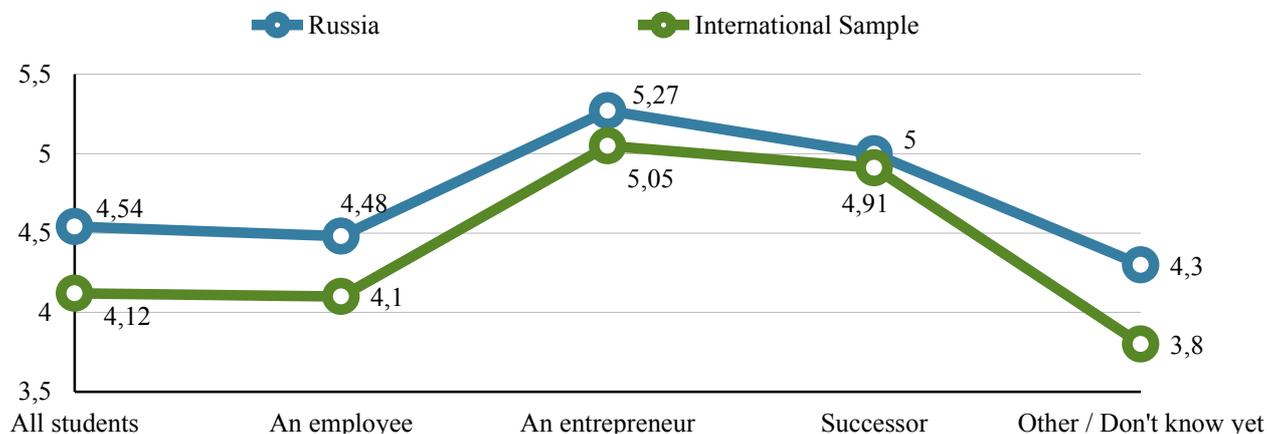


Fig. 31. Perceived Control over Behavior

The obtained results show, the index of perceived control is higher among entrepreneurs and lower among employees. Confidence in their ability to control the situation was higher among Russian students than the average for the international sample. Fig. 32 shows the distribution of the average

values of the responses according to the career groups of Russian students.

According to the results, perceived control over behavior is least characteristic for those who have not made their choice yet, and most — for future entrepreneurs.

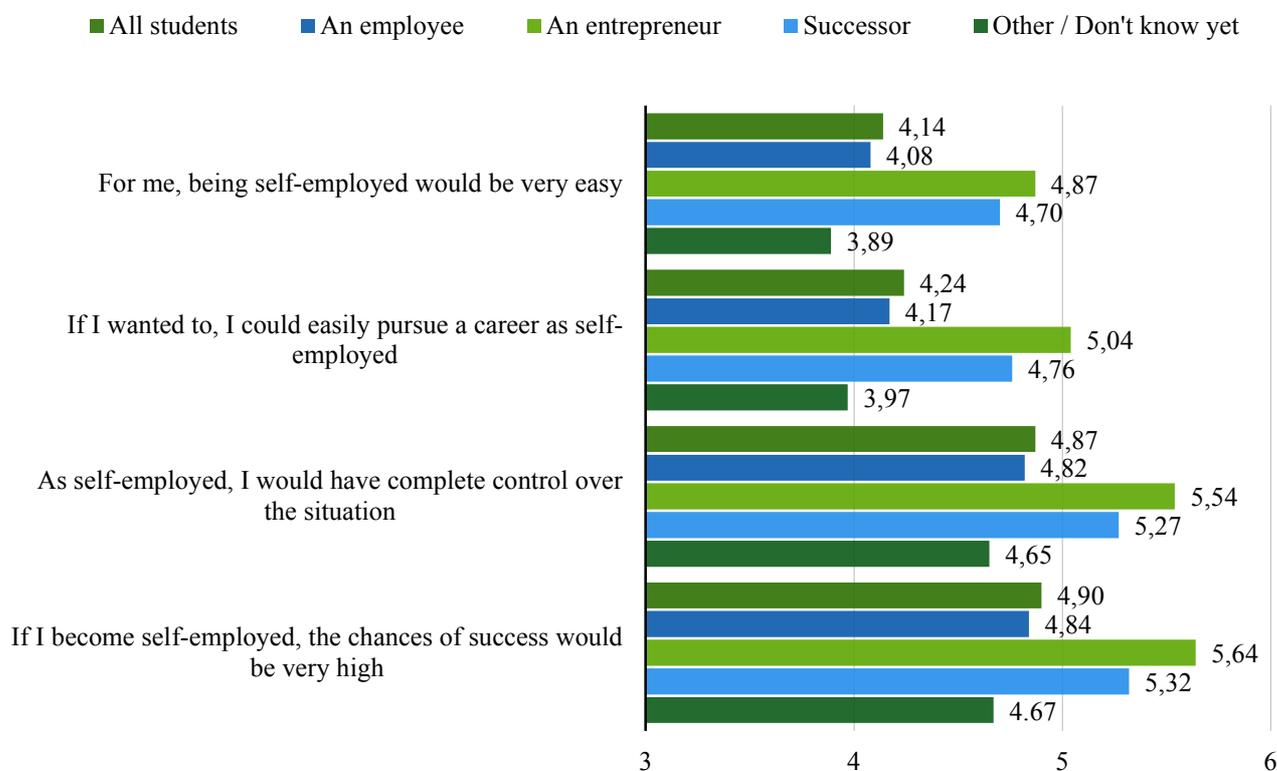


Fig. 32. Perceived Control over Behavior and Career Intentions of Russian Students after Completion of their Studies

### 4.3. Entrepreneurship among Students

A number of additional questions in the study allows to study career plans of the students, based not only on the four groups presented in Table 5, but also on other typology. Based on the questions of the questionnaire we can distinguish active and potential entrepreneurs among all respondents. Active entrepreneurs are students who have started their own business; potential entrepreneurs — those who tried to start their own business during the pe-

riod of studies. It should be noted that the percentage of potential entrepreneurs among students in Russia is higher than in the international sample (Fig. 33) and equals to 22%. However, the percentage of active entrepreneurs is quite low, both in Russia and in the international sample: only 6% of students in Russia founded their business during their studies at the university (5.5% — in the international sample).

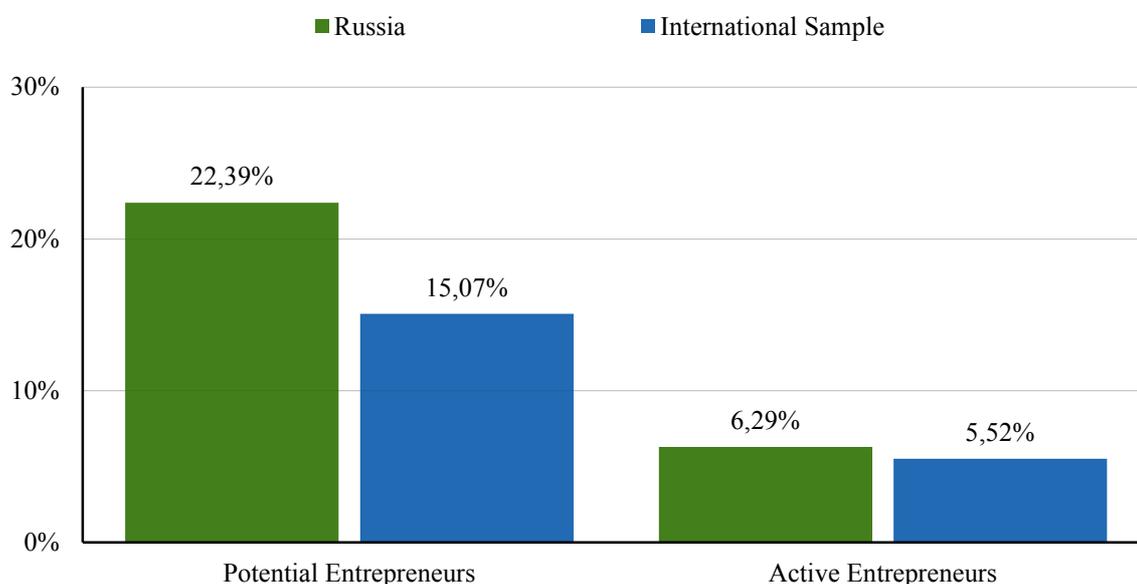


Fig. 33. Start of Own Business during Studies at the University

For a more in-depth study of entrepreneurial intentions of students in GUESSS study special attention is paid not only to potential and active entrepreneurs, but also to those who have a family busi-

ness — this category includes students whose parents (or one of them) are entrepreneurs and / or the principal owners of the business. A more detailed description of these three categories is presented below.

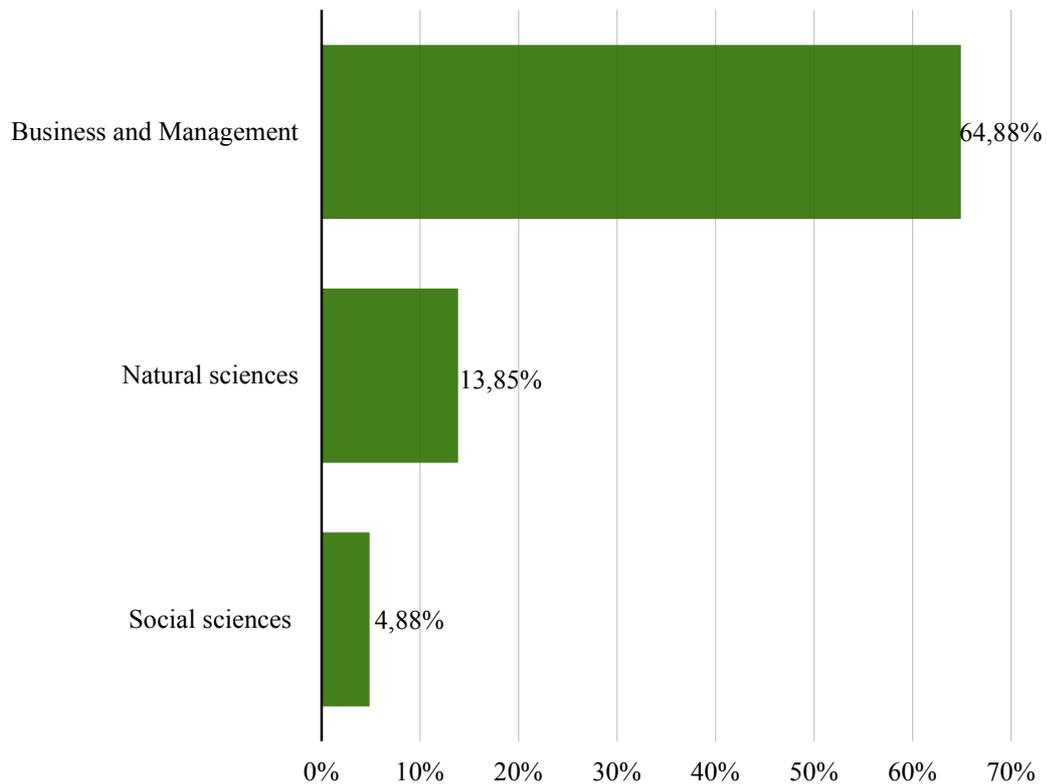
#### 4.3.1. Potential Entrepreneurs

This part of the report includes the analysis of the students who are already going to start their own business. In the total sample their number reaches 16,429 people, equivalent to 15.07% of the total sample, and in Russian — 1025, or 22.39%.

The average age of potential entrepreneurs in all countries is 23 years, while in Russia — 20 years. The most significant difference is seen in the percentage of students under the age of 24 years: if in Russia this category consists of more than 93%

of the respondents, in the international sample this figure almost reaches 70%. At the same time the majority of students (about 65%) have parents who are not entrepreneurs, so the presence or absence of entrepreneurs in the family is not the deciding factor in choosing a career. Most of the potential entrepreneurs study business and man-

agement (Fig. 34). To examine this category of students in more detail let's turn to gender differences (Fig. 35). Among the students studying business and economics and social sciences, most are women (53%), and in the natural sciences greater interest in entrepreneurship is shown by men (74%).

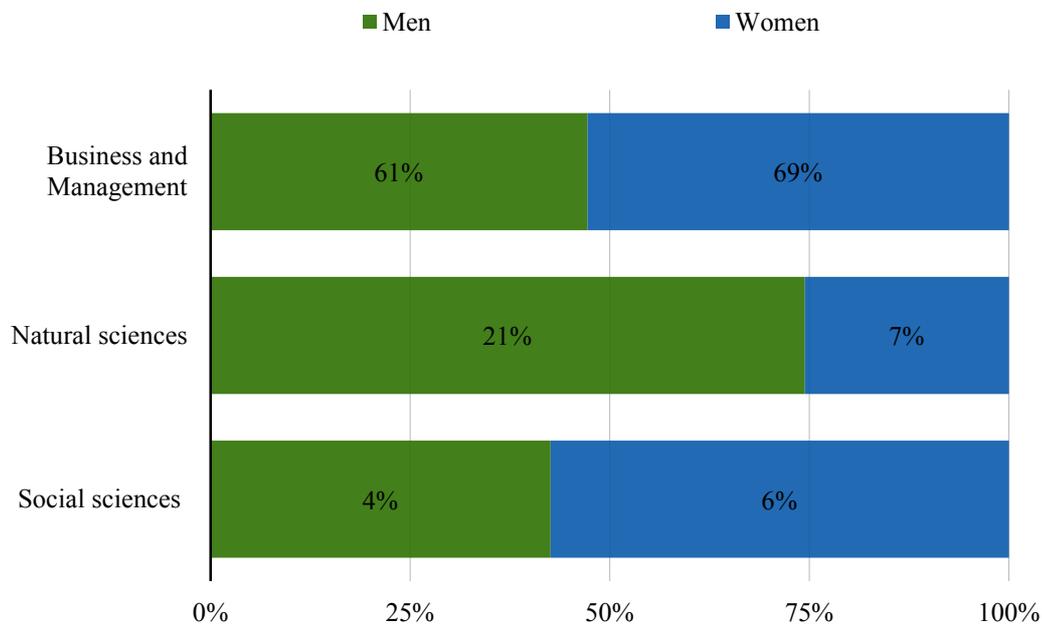


**Fig. 34.** Potential Entrepreneurs among Russian Students and their Field of Studies

In Russia, more than 50% of students believe that they can open their own company in a year, and about 30% — in the next six months, but on average for the entire sample opening of their own business is planned not earlier than in 1 year.

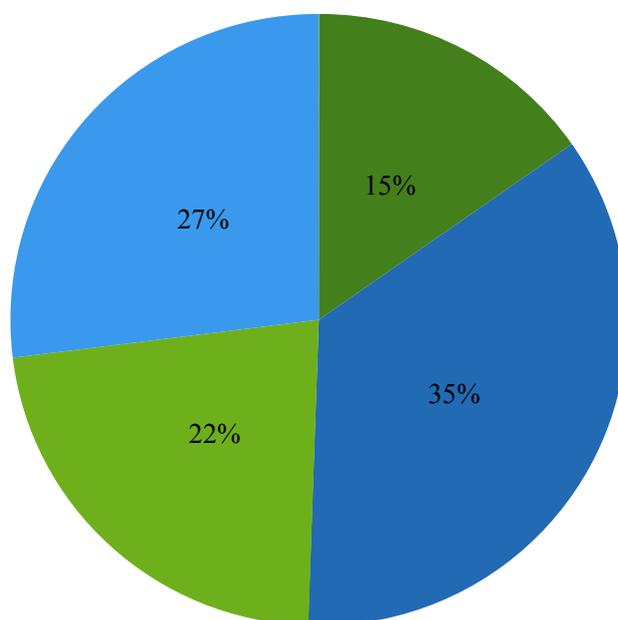
Since innovation is an integral characteristics of entrepreneurship, the students were asked to assess whether their idea is new in the market.

Over 35% of Russian respondents believe that their product (service) will be new to majority of customers (Fig. 36). A little over 15% of students agree with the fact that it will be new to all customers. The remaining participants (22% and 27%) believe that the new product will be new only to minority of customers or will not be something new at all. Very similar trends are also typical for the international sample.



**Fig. 35.** Potential Entrepreneurs among Russian Students, their Gender Composition and Field of Studies

- New to all customers
- New to majority of customers
- New to minority of customers
- Not new at all

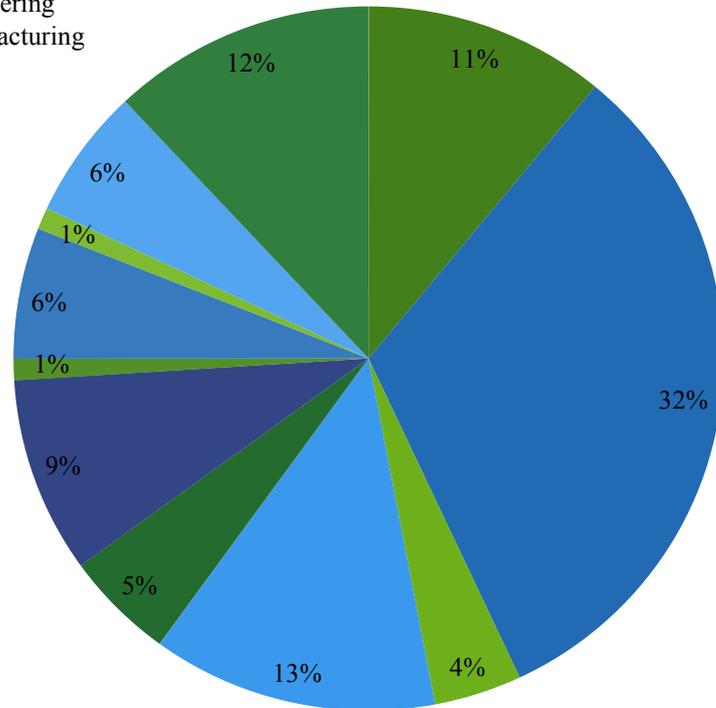


**Fig. 36.** Novelty of Product / Service of the Future Company among Russian Students — Potential Entrepreneurs

Fig. 37 presents the classification of future firms in Russia by sector. About 32% of potential entrepreneurs are aimed at opening a business in wholesale or retail trade (which is almost twice

the index in the international sample). The second in popularity is advertising/marketing/design, the third - information and communication technologies.

- Information technology and communication
- Trade (wholesale/retail)
- Consulting (law, tax, management, HR)
- Advertising / Marketing / Design
- Education and training
- Tourism and gastronomy
- Health Services
- Other services (including finance, insurance, etc.)
- Architecture and Engineering
- Construction and manufacturing
- Others



**Fig. 37.** Sector of Activities of the Future Company among Russian Students — Potential Entrepreneurs

Among those who are studying business, in addition to trade, many are focused on the activities in the field of advertising/marketing/design and tourism/cooking. Students, intending to start a business in the field of information technology and communications, are trained, in most cases the field of “natural science”. The field of education/training, and advertising/marketing/design is interesting for those who specialize in “social sciences”.

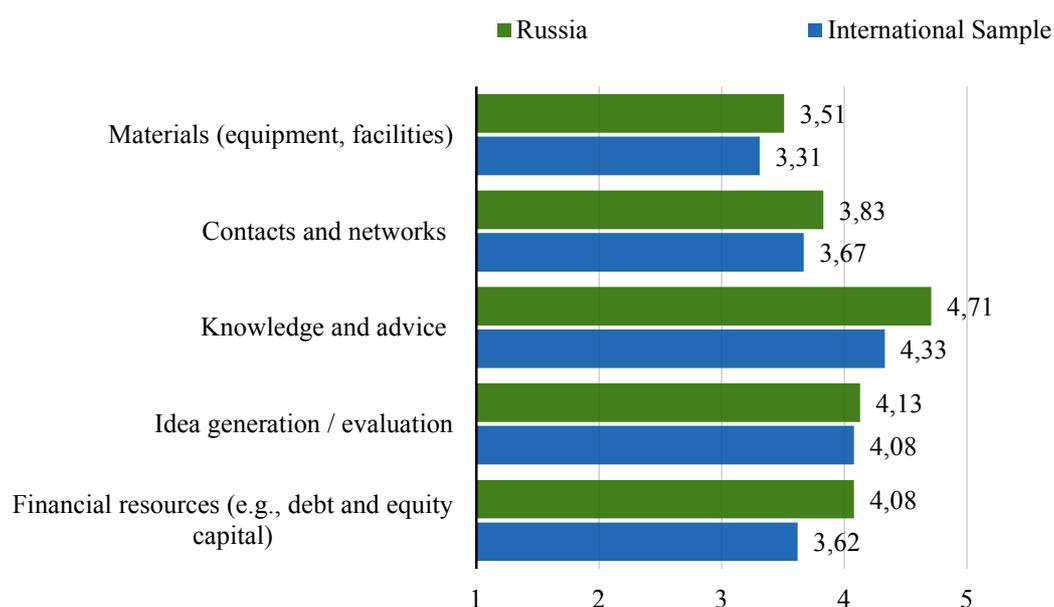
Since opening of a company is associated with a high rate of risk, and many would like to re-

duce it, one of the outputs — share risks with a partner (or partners). In Russia 39% of potential entrepreneurs believe to open their own company with one partner, 19% of respondents are ready to a fully independent activity, while in the international sample the figure is 27% (Table 7).

Besides, several Russian students mostly expect the support of the parents as well, not only their knowledge and advice, but also their help in the development of the idea and provision of financial resources (Fig. 38).

## Partners for Future Business

Amount of partners	Russia, %	International sample, %
<i>No</i>	19	27
<i>One partner</i>	39	36
<i>Two partners</i>	28	24
<i>Three partners</i>	10	8
<i>Four and more partners</i>	4	5



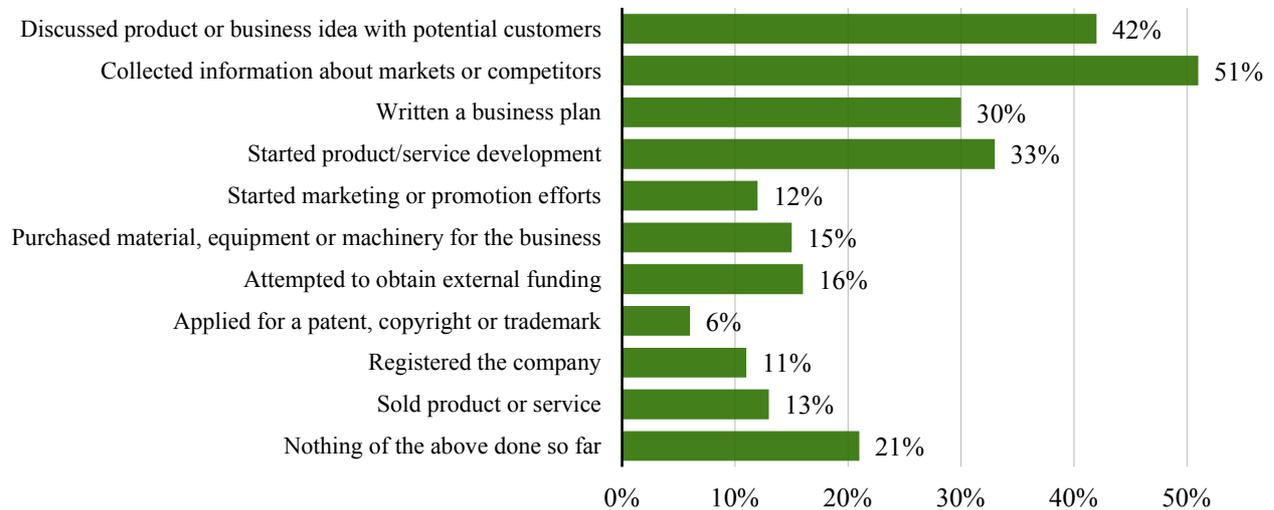
**Fig. 38.** Family Support Expected by Potential Entrepreneurs

Note: Figure shows average indexes; scale from 1 to 7: 1 — not at all, 7 — very much.

Thinking about the organization of their own business, students around the world rely on the fact that they can thus earn money and become rich, and the second motive is the strive for career development in business world through the creation of their company. It turned out that students are least interested in solving existing social problems by creating their own business.

Since students from the category of potential entrepreneurs noted the fact that they are al-

ready trying to start a business, the question arises: what stage they are in, what steps have already been taken? Approximately one-fifth of potential entrepreneurs among Russian students have not started to do anything (Fig. 39). 42% of students discussed their business idea with potential customers. Half of them have collected information about the market and competitors, and about a third — have written a business plan and started product /service development.



**Fig. 39.** Steps Taken to Start their Business among Russian Students

Number of steps taken to start a business allows you to create another index, which reflects the degree of entrepreneurial activity among those students who are focused on the opening of their company. The index is calculated as the sum of the steps taken from 0 (“Nothing of the above done so far”) to 10, 10 —the maximum possible number of

the actions presented in Fig. 39. As a result, on the basis of calculations made, the following results were obtained: the highest index of entrepreneurial activity is typical for Argentina, Slovenia, Malaysia and Luxembourg, and the lowest — in Romania, Hungary, Poland and Japan. For Russia, the index is 2.3 (see Table 8).

*Table 8*

#### Entrepreneurial Activity Index

No.	Country	Index	No.	Country	Index
1	Argentina	4,28	18	Germany	2,86
2	Slovenia	3,94	19	USA	2,85
3	Malaysia	3,82	20	England	2,79
4	Luxembourg	3,62	21	Canada	2,77
5	Liechtenstein	3,61	22	Scotland	2,74
6	Australia	3,46	23	Italy	2,72
7	Mexico	3,44	24	France	2,71
8	Finland	3,3	25	Greece	2,56
9	Portugal	3,23	26	Israel	2,5
10	Brazil	3,12	27	Belgium	2,47
11	Colombia	3,05	28	Russia	2,3
12	Estonia	3,04	29	Singapore	2,24
13	Netherlands	3	30	Nigeria *	2,2
14	Denmark	2,96	31	Romania	2,19
15	Switzerland	2,91	32	Hungary	2,14
16	Austria	2,9	33	Poland	1,88
17	Spain	2,9	34	Japan	1,3

*Note: For Nigeria the index is calculated on the basis of 7 questionnaires, which could not be considered as a reliable sample.*

### 4.3.2. Active Entrepreneurs

Only 6.29% of students in the Russian sample and 5.52% in the international one already run their own business (in absolute indicators — 288 and 6016 respectively). In Russia, the share of active entrepreneurs under the age of 24 years is over 86%, while in the whole sample it is significantly lower — 52.5%, in other words, in most of the countries older students become entrepreneurs. Most Russian students — entrepreneurs are enrolled in “Business and Management” (about 70%), while in the international sample two areas dominate: about 40% are studying business and economics as well, and a little more than 30% — natural sciences. Approximately 35–40% of the students’ parents are entrepreneurs, for 20% of whom the father is an entrepreneur. The industry distribution of business for active and potential entrepreneurs is quite the same and most of them belong to the field of trade.

Most of the students in Russian sample have founded their company recently: 58% in 2013 and 28% — in 2011–2012. Only 8% of respondents started their business earlier (Table 9). In the international sample 34% of the students organized a company in 2013, 30% — in 2011–2012, the remaining 36% — in 2010 or even earlier.

In Russia, the company is operated by an average of five people, and the average for the entire international sample — 3 persons. In addition, the plans of Russian students in 5 years are quite ambitious: if the average for the respondents plan to have 56 employees in the company, active entrepreneurs in Russia believe that the number of their employees in the near future will exceed 200 people. Despite the differences in expansion plans, active entrepreneurs in both

groups are making quite the same effort: a little over 33 hours per week Russian students — entrepreneurs are working, and 30.5 hours — active entrepreneurs in the entire sample. A large proportion of the property is in the hands of entrepreneurs. Many active entrepreneurs do business with partners. Interestingly, the assessment of family support among active entrepreneurs is virtually identical to the trend of expectations among potential entrepreneurs, and knowledge and advice that can parents give are of great value.

Motives “to make money and become rich”, as well as “to advance my career in the business world” remain dominant for active entrepreneurs in Russia during the starting the business (the median is 5.47 of 7). Note that in the international sample in the first place is the desire to move up the career (4.89), and the second — the desire to make money (4.57), while in the Russian sample it is vice versa (the average score for the motive “to advance my career in the business world” is 5.3 in Russia). Among Russian students rather important is the desire to play a proactive role in changing how the world operates (the average score is 5.01, and for the entire sample — 4.24).

Since many active entrepreneurs are driven by the motive to earn money from the very beginning, it is a natural interest how to do it. All the respondents rated the success of their business as fairly mild, however, looking at the data presented in Fig. 40, attention should be paid to the fact that among Russian students the evaluation of the business success, including sales growth, increased market share, profits and jobs creation, is slightly higher than in the international sample.

## Existing Business Characteristics

	Russia	International sample
<b>When did you found your firm?</b>		
<i>2010 and earleir</i>	8%	36%
<i>2011-2012</i>	28%	30%
<i>2013</i>	58%	34%
<b>Number of employees</b>	5,82	3,37
<b>Planned number of employees in 5 years</b>	202,83	56,16
<b>How many hours per week do you work for it (average)?</b>	33,42	30,5
<b>Share of total equity of the firm (%)</b>	63,38	68,66
<b>Number of partners</b>		
<i>No</i>	34%	49%
<i>One partner</i>	31%	27%
<i>Two partners</i>	22%	14%
<i>Three partners</i>	11%	6%
<i>Four and more partners</i>	2%	4%

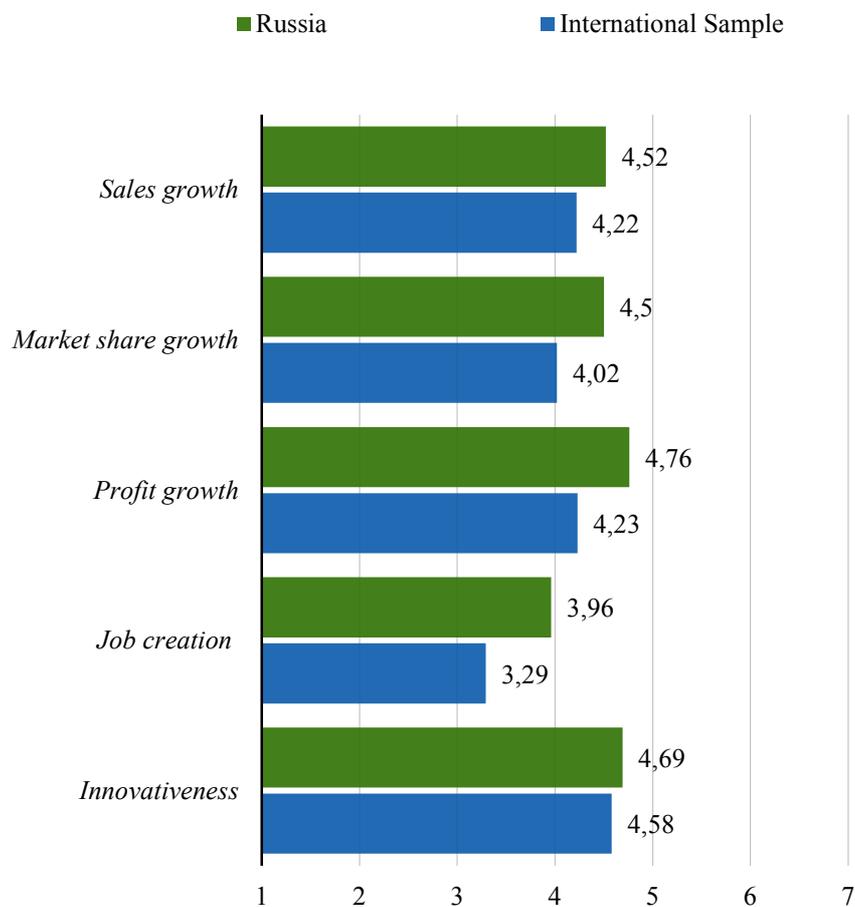


Fig. 40. Business Success among Active Entrepreneurs

### 4.3.1. Potential Successors

Career choice intentions of students may be a consequence of the entrepreneurial environment in their family where the parents have their own business and children develop an idea how to organize their business. Among study participants, about 30% of respondents indicated that at least one of their parents is an entrepreneur, and in most cases — the main business owner. Basic features of family business in Russian and in the international samples are similar: in more than 85% of cases the firm was founded by parents, in 90% of cases — they are working in it at the moment and in 80% cases — parents are CEOs. Approximately 40% of the students already have experience in family business. The main differences between the Russian and international samples is the tenure of the firm and the number of employees. In Russia, the average

parents do their business for just over 10 years, and the average indicator for the entire sample is 16 years. The average Russian firm employs more than 88 employees, and the number of employees in international on is twice lower — 38 people.

Distribution of family businesses by industry is presented in Fig. 41. Note that 48% of students in Russia and 24% in the international sample refer to a family business in the trade sector, followed by construction and manufacture (16 and 15%, respectively).

Assessments of the success of the family business were also slightly higher among Russian students (Fig. 42). The closest index between the two groups — innovation, which was estimated slightly above average in both groups.

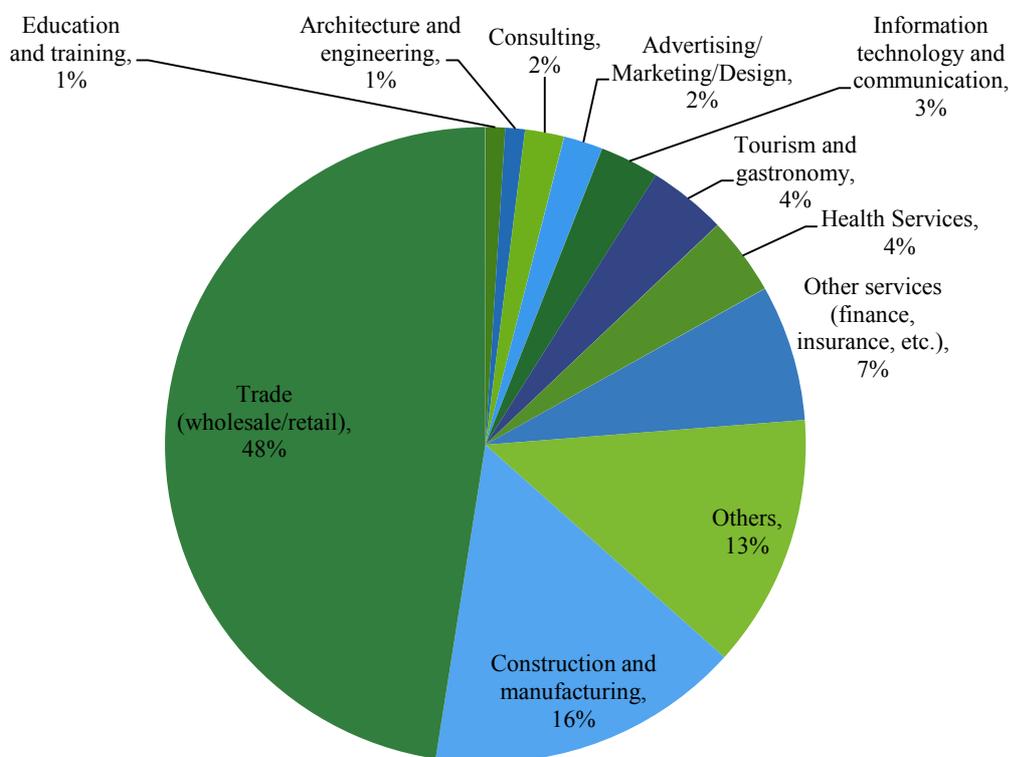
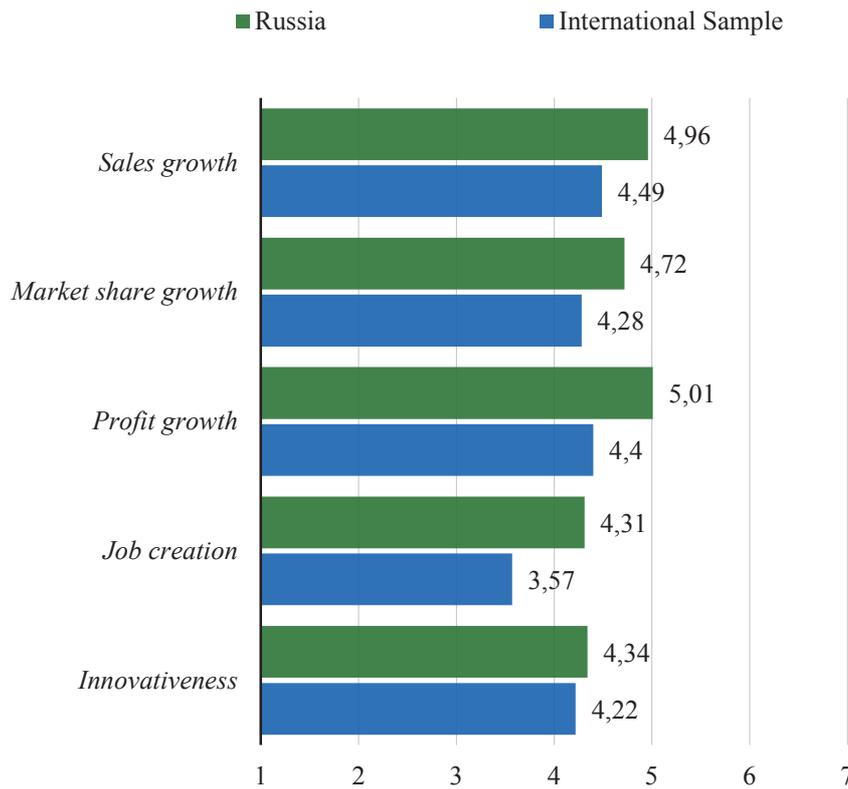


Fig. 41. Family Firm Business Sector



**Fig. 42.** Success of Family Business

Note: Table presents average values; scale from 1 to 7: 1 — worse, 7 — better.

But how far are the students ready to become the successors of the family business themselves? Despite the fact that, in general, many students associate positive feelings with parents firm, only 4% are willing to devote themselves to the development

of the family business (Table 10). Note also that in the inter-national sample students rate emotional attachment to the company of parents slightly higher, and in Russian sample the trend to hold firm in the hands of the family is more expressed.

Table 10

#### Attitude to the Career of Successor in Family Business

	Russia	International sample
Being a successor implies more advantages than disadvantages to me	4,19	3,43
A career as a successor is attractive for me	3,62	3,03
If I had the opportunity and resources, I would become a successor in my parents' firm	3,72	2,99
Being a successor would entail great satisfactions for me	3,61	3,06
Among various options, I would rather become a successor in my parents' firm	3,41	2,67

Note: Table shows average indexes; scale from 1 to 7: 1 — completely disagree, 7 — completely agree.

Despite the existence of a family business and understanding the peculiarities of entrepreneurship, not every student aspires to succeed in the company of parents, and the force of intentions in the international sample is even less than in Russia. Students in Russia are quite neutral in their willingness to invest efforts to become successors, although these figures in the international sample were even lower. On average, the index of “readiness” to become successors among students whose parents are entrepreneurs, is 2.5 in the entire sample, and in Russian — 3.2.

Nevertheless, the existence of the possibility to succeed gives students a greater sense of confidence. In Russia many of them agree that the prospect of becoming successor carries more advantages than disadvantages, but in the international sample assessment is absolutely neutral, and the lowest level of agreement emerged in relation to the statement: “Among various options, I would rather become a successor in my parents’ firm”. Russian average index is 3.41 out of 7, and in the world — 2.67. The overall average ratio to the perspective to become a successor is at the level of 3.03 for all students, and 3.7 among Russian students (see Table 10).

## FINDINGS

National report presented the main results of the GUESSS research in 2013/2014, and a comparison of Russia with international sample was done for a variety of characteristics. Many trends appeared to be similar, but a number of features that distinguish the Russian context can be identified. Here are the main findings and revealed differences.

- In the Russian sample, the vast majority of respondents — 90% — study at undergraduate programs and only slightly more than 8% — at master programs. The average age of students is 20 years, in the international sample it reaches 23, which may be associated with the peculiarities of the education system in Russia. Students enter the university at the age of 17–18 years, while in many countries, this threshold is 20–22 years. Most of the survey participants in Russia are trained in “Business and Management” (62%) and this figure is almost twice than in the international (34%). The reasons for this distribution may be related to the fact that the project coordinator for Russia is the Center for Entrepreneurship of Graduate School of Management SPbSU, so mostly the invitation to participate in the study was accepted by the universities and faculties in the field of business and economics, having contacts with the Centre. In addition, the invitation to take part in the project was more eagerly accepted by the representatives of economic and business departments at universities, because entrepreneurship is the topic of interest for this particular category of professors and scholars.
- Most of the students in Russia as well as in other countries are planning to be hired immediately after graduation (75%), and just over 9% of the students in Russia are ready to create their business from scratch, which is higher by almost 3% than the international index. However, 5 years after graduation the difference in the plans becomes more visible: the

number of those wishing to become entrepreneurs among Russian students increases from 9 to 53%, and in the international sample from 6 to 31%. This trend repeats the results of GUESSS 2011. One of the explanations — the desire of students to acquire the necessary experience in the existing company, before moving to the organization of their own business.

- But the career intentions of students say nothing about the readiness of students to entrepreneurship activities. In this regard, an index of entrepreneurial intentions for all countries that participated in the study was calculated. Russia ranks 5th in terms of the index of entrepreneurial intentions (4.59), after Mexico, Colombia, Argentina and Malaysia. At the end of the list there are countries such as Switzerland, Germany, Japan and Denmark. Such a pattern indicates the presence of certain differences in the development of entrepreneurial aspirations among students from developed and developing economies.
- The study is focused on the factors that can explain the formation of career intentions of students. One such factor is personal motivation. However, the difference in responses in Russian and international sample turned to be irrelevant: the majority of students when choosing a career are guided by the desire to fulfill their dreams and have an exciting, promising and challenging work.
- University environment is one of the key elements in forming entrepreneurial ecosystem. However, in Russia, as well as on average in the entire sample, the degree of implementation of the entrepreneurial component in the curriculum is very low: more than 60% of students did not have courses in entrepreneurship. Besides, the learning environment and courses contribute little to the development of entrepreneurship. It should be noted that, despite this, the institutional environment in the Russian university promotes

the development of a positive attitude towards entrepreneurship.

- Despite the fact that the presence of parents-entrepreneurs in the family business is often considered as a factor contributing to the development of their children as future entrepreneurs, this pattern was not identified in Russia: whether parents are entrepreneurs or not, more than 50% of respondents plan to start their business 5 years after completion of their studies. However, in the international sample the difference between these groups was found, and the percentage of those willing to become entrepreneurs in families where parents are engaged in business is slightly higher.
- As the theoretical model of GUESSS includes social and cultural aspect, it has also been analyzed in details. It turned out that Russian students are more confident in the positive reaction of the inner circle to their anticipated decision to become an entrepreneur. Moreover, in Russia greater tolerance for risk among students has been revealed as well as greater willingness to take risks than the international sample.
- In general, more positive attitude towards entrepreneurship among Russian students than in the entire sample could also be noted. Many people believe that the main barrier for their entrepreneurial activities is lack of resources, however, the career of an entrepreneur is attractive to students, and they note that such activities would bring them a greater sense of satisfaction. In addition, Russian students have higher degree of perceived control over their behavior, which is especially expressed in those who are going to become entrepreneurs right after completion of their studies.
- In addition to the opportunity of dividing students into 4 career groups there were also questions in the questionnaire to determine who of the students is currently an active or potential employer, and who has a family business. In Russia, the percentage of poten-

tial entrepreneurs is slightly higher than in the global sample, and 22% (for the whole sample — 15%). Most (about 65%) studied business and management and plan the actual opening of the company in about a year. Potential entrepreneurs among Russian students are aimed at opening business in the wholesale or retail level, which is almost twice the index from the international sample. It is interesting that many people in Russia are also counting on strong support from the family at the opening of business. Analyzing the actions taken to set a company, it was revealed that many have analyzed the market and tested the idea. Relying on an aggregate index of the steps taken, the index of entrepreneurial activity was compiled, and Russia was practically at the end of the list of countries with an index of 2.3. However, it should be noted that the average index is 2.6, and among all countries it does not exceed 4.28.

- The share of active student entrepreneurs in Russia amounted to 6.29%, slightly higher than in the international sample. The main motivation of the majority of students — the desire to make money and advance in their career in the business world. Based on these results we can say that Russian students estimate the success of their activities slightly higher than students in all countries in general.
- Analysis of family businesses showed that the proportion of students from families of entrepreneurs is about the same in Russian and international sample—about 30%. Despite this, only about 4% of Russian students think about the career of successor immediately after completion of their studies (in the international sample this figure is even lower and is about 2%). It is noteworthy that the attitude to the perspective of becoming successor is quite reserved among the students who have such an opportunity. In Russian sample the rating of such a perspective and willingness to do so is slightly higher, but it does not exceed 4 (maximum - 7).

## CONCLUSION

To conclude, it is important to note while characterizing entrepreneurial intentions among students that they are higher than average for the international sample. But along with this, there are certain weaknesses in Russia; it is primarily poor development of institutions and infrastructure to support entrepreneurship among students. This deficiency is often referred to in many studies, which also highlights the urgent need to create an enabling environment for business development because there is no history or culture of entrepreneurship in Russia in the sense that is given to it in the West (Michailova et al., 2013). It is difficult to overestimate the importance of Global University Entrepreneurial Spirit Students' Survey" (GUESSS) in development of entrepreneurship in the world, as well as in a separate country. Conditions may vary, but the results make it possible to assess the situation and to take measures to improve the situation with training and development of entrepreneurial intentions among students.

The results obtained for the Russian sample, allowed to identify the main trends in entrepreneurship among students and to identify deficiencies that may hinder the development and dissemination of entrepreneurial intentions in our country, which

are primarily associated with the university environment and the lack of institutional support of student entrepreneurship. But today's challenges and the need for strong economic diversification refresh the look at the role of the university in the process of creating entrepreneurial ecosystem. It is the institution that can become the center of creation and application of knowledge, focused on the socio-economic development of the region, and will contribute to students development not only as professionals in their fields, but also as entrepreneurs, creating innovation and new jobs. One priority should be the development of entrepreneurship education system, disclosing entrepreneurial intentions of students, providing them with educational services of high quality, as well as various institutional and resource support. This raises an issue about the need for modernization of existing training systems to meet modern trends, development of necessary infrastructure, where it will be possible not only to introduce the courses in entrepreneurship, but also to launch projects to support entrepreneurial intentions among students. In other words, today's challenge is the need to implement large-scale changes and develop a new educational path.

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