

# ENTREPRENEURIAL COMPETENCIES IN HIGHER EDUCATION

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## ABSTRACT

*Entrepreneurship education has a great success in education field. During the last decades, it became widely spread in the USA, Asian and European countries. As a result, the number of various pedagogic approaches and courses that are devoted to the field-specific themes within entrepreneurial activity, drastically increased. Nevertheless, the majority of the existing programs and techniques in different countries (including Russian Federation) have some deficiencies in their theoretical and practical parts that influence the students' attitude towards entrepreneurial activity. That is why, they need to be corrected. Guided by this purpose, the authors conducted a survey to identify the students' attitude towards entrepreneurial activity and the level of their readiness to participate in it. Besides, the purpose of the research was to reveal the deficiencies of educational programs that can result in the students' lack of readiness for entrepreneurial activity. The research is oriented towards the audience that is more universal in its composition. This will allow to reveal general problem that characterizes the domestic education. That is why, the research was conducted in different universities of four Russian cities. The survey was focused upon three aspects: the students' attitude towards entrepreneurship, the factors of their business-development and the students' evaluation of the practical and theoretical content of education programs in universities. 710 four-year students took part in the survey. The results of the research pointed to the students' general lack of readiness for entrepreneurial activity. Besides, the research allowed to identify a low effectiveness level of education programs as the reason of this situation. It is conditioned by a small number of field-specific disciplines, by the absence of the programs and probations, by the lack of techniques that develop entrepreneurial spirit. These results will allow the administration of higher education institutions to revise all the critical remarks that were formulated by the students, to introduce the lacking techniques, to correct the content of the education program in order to exclude the disciplines that do not directly relate to the students' specialization and to address the problem of the advanced training of the faculty staff in order to increase the quality of the education process.*

**Keywords:** Entrepreneurship Education, Higher Education Programs, Entrepreneurship Skills Acquisition, Digital Economy, Entrepreneurial Behavior, Entrepreneurial Characteristics.

## INTRODUCTION

It was only 30 years ago that the term “*entrepreneurship*” appeared. Nevertheless, it has already managed to significantly influence both the world countries' economy and higher education. Various seminars and conferences are annually held around the world. They emphasize the importance of entrepreneurship for the national economies, society and individual development (Chang & Rieple, 2013; Charney & Libecap, 2000; Kume et al., 2013). Whereas in

1970s the number of colleges and universities that offered entrepreneurship courses was insignificant, during the last decades there appeared more that 1600 of them (Kuratko, 2005).

An active development of entrepreneurial activity resulted in the need for teaching entrepreneurship in universities. Teachers and business-trainers destroyed the existing myth according to which entrepreneurs are rather born than made. They proved that entrepreneurship was also a discipline that could be taught (Cooney, 2012; Drucker, 2006; Entrepreneurship in American higher education, 2016).

Entrepreneurship education of the economic students is very important and relevant in the context of digital economy. The term “*digital economy*” can be regarded as an economic direction that is based on the digitization of information and information-communicative structures (Hamida et al., 2017). Digital economy significantly influences the poverty rate through decreasing information asymmetry for the poor and the rich and through increasing the effectiveness level of women and young workers labor. Young people who mastered the skills that are somehow associated with digital technologies successfully obtain the working places in highly technological sectors. That is why, successful entrepreneurship education can become the key factor of the development of qualified workers who will be able to position themselves as competitive workers in the international labor market (World Bank Group, 2016).

The development of the students’ entrepreneurial skills and competencies is important for the formation of a competent and competitive specialist in the labor market. Entrepreneurial behavior is the result of the development of two factors: achievement motivation and competencies that are needed for this achievement. Wise entrepreneurial behavior guarantees entrepreneurial success (Gibb et al., 2012; Gribben, 2006; Robles & Zárrega-Rodríguez, 2014). Competencies can be developed through pedagogic researches, through students’ education and through the creation of education programs. Thus, entrepreneur’s competencies are both necessary characteristics of a potential entrepreneur and a set of qualities that are associated with a successful development of entrepreneurial activity (Carter & Tamayo, 2017; Gürol & Atsan, 2006; Henry, 2007).

In order to research the skills that are formative of entrepreneurial behavior and necessary for successful entrepreneurship, the scholars developed character “*model*” that differed in various pedagogical schools. One of the researches emphasizes the following traits as the most important: concentration upon control, need for achievement and “*tolerance for uncertainty*” (Entrialgo et al., 2000). Whereas another research points to the importance of such skills as readiness for risk, motivation for actions and innovative potential (Henry et al., 2005; Ibrahim et al., 2015; Stewart et al., 1998).

This stimulated the emergence of a big amount of methods that were used within entrepreneurship education courses: case-studies, readings, business plans development, interviews with entrepreneurs, discussion seminars, invitation of speakers, business visits and trips; probations and work with entrepreneurs and the development of start-ups. The introduction of these methods leads to the increase in the use of computer technologies (Baptista, 2015; Ibrahim & Mas’ud, 2016; Küttima et al., 2013).

A common approach within entrepreneurship education is problem-based learning. Its success depends on the overall education environment. The Program of International Students’ Assessment (PISA) shows that teaching and learning methods that are used in some countries are more effective for the development of the problem-solving skills. Potentially, business-trainings, probations and work with entrepreneurs, business visits and trips can serve as a very favorable environment for problem-based learning and for the development of

However, despite of the ever-growing use of the modern courses and technologies, there are certain difficulties and deficiencies in entrepreneurship education. Pedagogical competencies and entrepreneurship education methods are still being developed (Baptista, 2015; Mahawar et al., 2017; Maresch et al., 2016).

The main deficiency of the modern entrepreneurship education is still the inability to teach the students all the skills that would ensure their successful future activity in entrepreneurial field. Despite of their willingness to become entrepreneurs, the students do not yet possess necessary skills of entrepreneurial activity and do not understand the specificity of business management. In 2007, the research revealed that only 20% of small business owners were strongly interested in becoming entrepreneurs when being under 20 ages (during their study in universities). Besides, 20% consisted of the persons who were aged between 20-24, 30% between 25-30 years old, whereas the remaining 30% stated about their interest only after they were 30 years old (Kourilsky et al., 2007; Matlay, 2008; Man et al., 2008).

The education experience in China can serve as a good example of the problems in entrepreneurship education. In comparison to the USA, the Chinese entrepreneurship education is still in its infancy stage (Henry, 2007). In the beginning of 2002, the Ministry of Education decided to initiate entrepreneurship education in 9 Chinese colleges and universities. But these education programs were mainly unsuccessful due to the absence the education discipline in this field and due to the insufficiently elaborated content and methods. The theory and practice of entrepreneurship education are still being researched: education programs are often reduced to exclusively theoretical knowledge without providing the students with sufficient practical opportunities and enough space for their development (Mitchelmore & Rowley, 2010; Oosterbeek et al., 2010; Xianming, 2013).

The methods that would ensure an effective and successful entrepreneurship education within economic faculties of the US universities as well as in the Asian and European countries are not sufficiently investigated and implemented. This problem relates to the domestic education as well, because the research results pointed to the range of deficiencies in the entrepreneurship education programs.

The purpose of the article is to characterize the current condition of the domestic entrepreneurship education in universities and to evaluate the students' readiness for entrepreneurial activity, the level of their satisfaction with education program in this field. Besides, the article describes the experience of other countries (such as Denmark and the USA) in entrepreneurship education and in the formation of the students' entrepreneurial skills.

## METHODOLOGY

### Research Sample

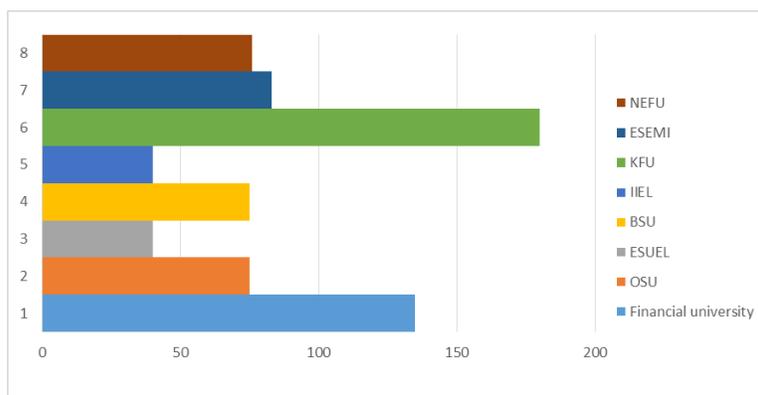
Basing on the above-mentioned purposes, the empirical research was organized and conducted. It consisted of the survey of four-year students of the Russian state universities. All the participants were full-time students of economic faculties. 710 students took part in the research: 52% male and 48% female students in the age between 20-22 years old. The probability of error is nearly 7%.

The first two universities that took part in the survey are located in Yakutsk: M.K. Ammosov North-Eastern Federal University (NEFU) and East-Siberian Economics and Management Institute (ESEMI). The students-participants of the survey study at the following faculties: NEFU faculty of economics (International Economics), ESEMI faculty economics. The total number of the students who took part in the survey was 155 (NEFU–85, ESEMI–90).

The next participant is Kazan Federal University (KFU). The students-participants study at the following faculties: economics (Enterprise and Organization Economics), management (*“Entrepreneurship”*). One more faculty is that of management (*“Economics and International Business”*) within which the education is carried out in Russian and English languages. 185 students of KFU took part in the survey. Besides, the students of International Institute of Economics and Law (branch of the Institute in Kazan city) took part in the survey. They study at the faculty of economics in the following specializations: *“World Economics”* and *“Enterprise Economics”*. 35 students of this Institute took part in the survey.

Besides, the students of two Irkutsk higher education institutions took part in the survey: Baikal State University (BSU) and East-Siberian University of Economics and Law (ESUEL). BSU students study at the faculty of economics (*“Enterprise Economics and Entrepreneurial Activity”*) and at the faculty of management (*“Small Business Management”*). 77 students of BSU took part in the survey. The students of ESUEL study at the following faculties: faculty of economics (*“Banking and Credit”*) and faculty of management (*“Organization Management”*). 33 students of ESUEL took part in the survey.

The final participants of the survey are the students of two Omsk universities. The first one is Omsk F.M. Dostoevsky State University. The respondents of the survey are the students of the faculty economics in *“Business Management”* specialization. 75 students of this university took part in the survey. The second university is the Financial University under the Government of the Russian Federation (branch in the city of Omsk). 130 respondents participated in the survey. They study at the faculties of international finances, international relations and management (Figure 1).



**FIGURE 1**  
**THE NUMBER OF THE STUDENTS-PARTICIPANTS OF THE SURVEY**

The survey was conducted among four-year students. The selection criterion is conditioned by the fact that senior students are more formed potential workers who are ready to enter the labor market. They have already learnt the main part of the curriculum and a lot of special courses in their specialty, they solved practical tasks during the semesters. Besides, some students are starting or have already started to work in their specialty. That is why, their relevant experience allows to conduct the survey in a more objective manner.

### Research Structure and Content

The survey was conducted as an anonymous questioning. The questionnaire consisted of 13 open and close-ended questions. The permit for questioning was obtained from the faculty deans and group curators. As far as the respondents were in different cities, the research was

conducted in a distant (remote) manner. With the permission of administration, the copies of questionnaires were sent to the universities of Yakutsk, Kazan, Irkutsk and Omsk. The survey was thoroughly controlled by the group curators.

The questioning procedure can be divided into two arbitrary blocks. The first block directly related to the students' personal qualities, their attitude towards entrepreneurship, their readiness level and direct involvement. The first question was associated with the students' evaluation of their readiness for entrepreneurship: would you like to take part in entrepreneurial activity on a certain stage of your career? The next question extends the previous one: name a reason of your readiness/lack of readiness for entrepreneurship? Here, the students were offered to directly ground their readiness level for entrepreneurial activity or to justify the lack of it.

The third question was addressed to the students who stated about their readiness to take part in entrepreneurship: are you ready to start your own business after graduating from university? The answer options included "yes", "*I feel that I'm quite competent in this field*", "*Not yet, because I feel that some necessary skills and knowledge are lacking*".

This question can be regarded both as close and open-ended, because the first option is followed by a proposition to ground possible answer: "*If you are not, please indicate the exact period when you are ready*".

The next question offered to name the main factor that can prevent students from starting their own business on this stage. The options that were offered included the main factors that can stand on the way of a young entrepreneur: Please name the factors that prevent you from starting your own business (please underline the relevant option): the lack of practical skills and knowledge; the absence of start-up budget; the absence of a business idea; unstable market conditions.

Then, the students were offered to name three skills that characterize a successful entrepreneur. After that, they needed to name their own three main skills that would help them to become successful entrepreneurs. The students' subjective evaluation will help to form the average characteristic of a successful entrepreneur.

The last questions of the first block related to the objective component of the readiness for entrepreneurship: is any of your parent or close relatives involved in entrepreneurial activity? If any of your relatives is entrepreneur, do you help them in this field? Do you plan to directly participate in your family business after graduating from university? The answer options included the following: "*I help and plan*", "*I don't help, but plan*", "*I don't help and don't plan*". The analysis of answers will allow to identify the connection between the readiness for entrepreneurial activity, because a student can already be involved into this field by virtue of his family business.

The second block of questions directly relates to the students' evaluation of the quality of entrepreneurship education in universities. What education forms did you encounter during studying in university: business trainings, case-studies, readings, development of business plans, interviews with entrepreneurs, discussion seminars, invitation of speakers, business visits and trips; probation and work with entrepreneurs, development of start-ups? The answers to this questions will allow to sum up the situation that related to introducing practical forms of learning that are necessary for entrepreneurship education.

The next questions directly related to the students' evaluation of the education quality: can you evaluate the teachers' competence in the field of entrepreneurship education? Do you consider the number of disciplines that are associated with entrepreneurship education to be sufficient within the curriculum of your faculty?

The last questions of this block related to the students' evaluation of the implementation of entrepreneurship education programs: are there the programs or probations in your university that favor the development of entrepreneurial activity? Would you directly participate in such programs, if there were any in your university? The results of data analysis are very important, because they can serve as a basis for identification of the correlation between the students' readiness for entrepreneurship and the quality of their education (Tables 1 and 2).

<b>Table 1 BLOCK OF QUESTIONS NO 1</b>	
<b>Question</b>	<b>Answer Options</b>
Would you like to be involved in entrepreneurial activity on a certain stage of your career?	Yes; No; Not sure.
What is the reason for the lack of your readiness for entrepreneurship?	Please provide your own answer.
Are you ready to start your own business right after graduating from university? If you are not, please, indicate the exact period when you are ready.	Yes, I feel myself rather competent in this field; Not yet, because I feel the lack of necessary skills and knowledge. +Your own answer.
Name the main factor that prevents you from starting your own business.	The lack of practical skills and knowledge; the absence of start-up budget; the absence of business idea; unstable market conditions.
Name three main skills of a successful entrepreneur.	Your own answer.
Name your three main skills that will help you to become a successful entrepreneur.	Your own answer.
Is anybody of your parents or close relatives involved in entrepreneurship?	Yes; No.
If any of your parents or close relatives is entrepreneurs, do you help them in this field? Do you plan to directly participate in your family business after graduating from university?	I help and plan; I help, but do not plan; I do not help, but plan; I do not help and do not plan.

<b>Table 2 BLOCK OF QUESTIONS NO 2</b>	
<b>Question</b>	<b>Answer Options</b>
What education forms did you encounter during studying in university? Please, underlie as necessary.	Business trainings, case-studies, development of business plans; interviews with entrepreneurs; discussion seminars, invitation of speakers, business visits and trips, probation and work with entrepreneurs, development of start-ups.
Can you evaluate the competence level of the teaching staff in the field of entrepreneurship education?	Competent; partially competent; incompetent.
Do you regard the number of disciplines that relate to entrepreneurship education as sufficient in your faculty programs?	Yes; No; Not sure.
Are there the programs or probation in your university that promote entrepreneurial activity?	Yes; No.
Would you directly participate in the programs or probations that favor entrepreneurial activity, if there were any in you university?	Yes; No; Not sure.

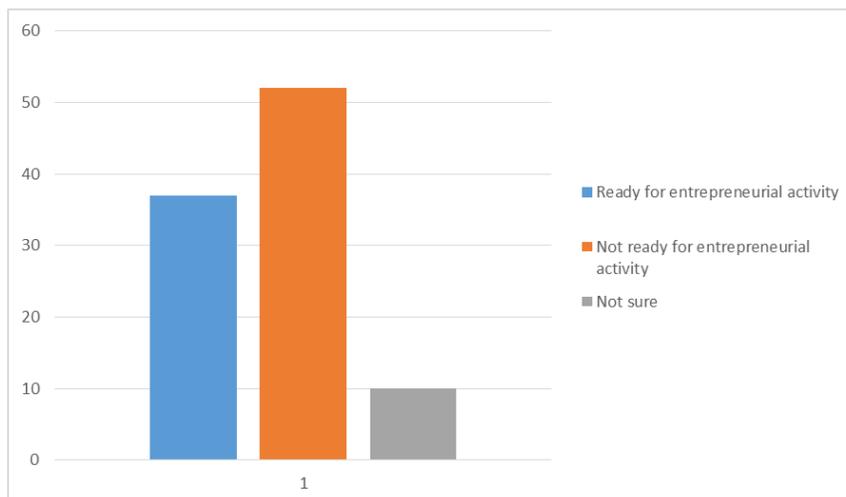
## Problems and Limitations

The research sample consisted only of four-year students. This is the main reason for the range of problems and difficulties that have been identified in the research. The recommendations on their solution can be applied only in relation to the groups of four-year students and to the programs that are taught at senior years. Further research can involve a wider range of respondents (first, second, and third year students) as well as the students of a master's degree. This will allow to formulate the problems and to make more generalized conclusions.

## RESULTS

Basing on the results of the research that was conducted among the students of the selected universities and specialties, we can make the following conclusions.

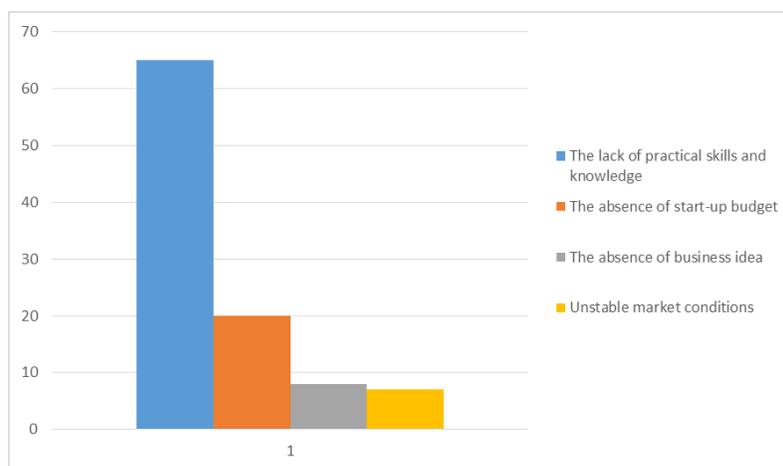
According to the result of the first question analysis, 37% students showed their willingness to participate in entrepreneurial activity on a certain stage of their career. 53% of students stated that they were not ready for it, whereas 10% of students were not sure about the answer. The most common reasons for the lack of readiness for entrepreneurial activity included “*the lack of necessary knowledge and skills*”, “*the absence of practical experience*” and “*the lack of budget*”. Besides, a simple lack of interest to entrepreneurial activity was cited among possible reasons. Thus, it can be concluded that the main reason for the students' lack of readiness for entrepreneurial activity is insufficient education level (Figure 2).



**FIGURE 2**  
**THE STUDENTS' READINESS FOR ENTREPRENEURIAL ACTIVITY**

Besides, a special question was developed and analyzed for those students who demonstrated their willingness to take part in entrepreneurial activity. 45% of students positively answered to the question “*are you ready to start your own business after graduating from university?*”, whereas the answer of 55% students was negative. The last group of respondents indicated the time when they would be ready to start entrepreneurial activity. In average, the time limits ranged from 5 to 7 years after graduating from university. Thus, even those students who are ready to start entrepreneurial activity do not show their willingness to start their business in the nearest future.

The main factors that prevent them from starting their own business include the following: 65% the lack of practical knowledge and skills (65%), the absence of the start-up budget (20%), the absence of business idea (8%), unstable market conditions (7%) (Figure 3).

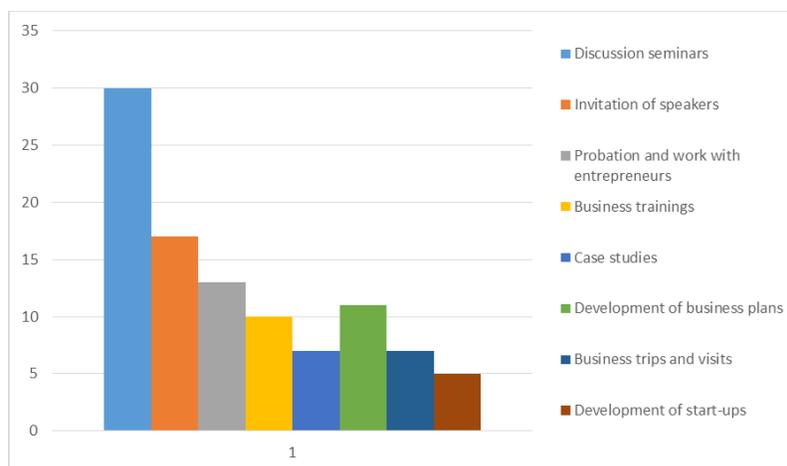


**FIGURE 3**  
**THE MAIN FACTORS THAT PREVENT STUDENTS FROM STARTING THEIR OWN BUSINESS**

The next open-ended question related to three main skills of a successful entrepreneur. According to the students' opinion, the most popular skills include the following ones: independence, readiness for risk-taking and responsibility. Among their own skills that will help them to become successful entrepreneurs and that were the most cited include, there are the following: responsibility, independence, ability to predict, readiness for risk-taking, ambitiousness. Correlation of the results pointed that the skills that were regarded by students as necessary for a successful entrepreneur and their own skills coincided. We can suppose that these indicators condition the readiness level of a certain group of students for entrepreneurial activity. 27% positive and 73% negative answers were given to the question *"Is any of your parents or close relatives involved in entrepreneurship?"* This is a rather high rate. It allows to conclude that some students are not ready for entrepreneurial activity due to the lack of practical experience and to the absence of family model.

Besides, 27% of respondents stated that their parents and relatives were involved in entrepreneurship. They answered to the last question of the first block in the following way: I help and plan (60%); I help, but do not plan (15%); I do not help, but plan (20%); I do not help and do not plan (5%). The data allow to conclude that the respondents who are ready for entrepreneurial activity will take part in family business.

The questions from the second block related to the education process. Discussion seminars (30%), invitation of speakers (17%), probation and work with entrepreneurs (13%) were among the most cited options in the answers to the following question: *"What education forms did you encounter during studying in university?"* Business trainings (10%), case-studies (7%), development of business plans (11%), business trips and visits (7%) and development of start-ups (5%) were among the rarest answers (Figure 4).



**FIGURE 4**  
**EDUCATION FORMS THAT THE STUDENTS ENCOUNTERED DURING STUDYING**  
**IN UNIVERSITY**

78% of respondents are not satisfied with the number of disciplines that relate to entrepreneurship education. Besides, when answering the question about the teaching staff competence in the field of entrepreneurship education, 60% of students stated about their incompetence, 25% pointed to partial competence, whereas only 15% of respondents were confident in the teachers' competence. Moreover, only 45% of students mentioned about introduction of the programs or relevant probations in their universities that would favor entrepreneurial activity. 85% of the students demonstrated their willingness to directly participate in the programs or probations that favor entrepreneurial activity.

## DISCUSSION

Similar research was conducted by The George Washington University Center for Entrepreneurial Excellence in 2014. However, the results were more positive than the results of our research.

The scholars and researchers in education field stated that during 1990-2014 the number of courses and programs on entrepreneurship education in the US colleges and universities increased both in their number and variety (The National Survey of Entrepreneurship Education, 2014).

The main reason for these changes was general dissatisfaction of the students and universities' administration with the outdated programs and methods of entrepreneurship education. As a result of the programs and methods that were introduced, the number of students who were interested and ready for entrepreneurial activity increased. This is evidenced by the great number of graduates who obtained a degree in entrepreneurship field (Ordu & Abdulkarim, 2018; Seikkula-Leino, 2011; Zhang 2017).

A lot of disciplines have emerged that are oriented towards entrepreneurship education, such as Entrepreneurship, Venture Capital, Business Planning, E-Commerce, Business Strategy. Besides, the researchers point to a great popularity of these courses among the students (Solomon et al., 2002; Streeter et al., 2011; Wilson, 2008).

The USA are widely regarded as a leader in entrepreneurship education. In 1947, the teacher Myles Mace conducted the first entrepreneurship course in the history of the United States. Since 1947, a new infrastructure within the American education system has emerged. It consists of more than 2200 courses in more than 1600 education institutions, 277 new titles and 44 academic journals in English language (Katz, 2003).

Strong points of the American higher education system include expanding of the funding sources, enhancing of the connection between universities and major entrepreneurs, traditions of philanthropy and openness in creation of the new disciplines that stimulate entrepreneurship learning. These characteristics allowed entrepreneurship education to develop quite rapidly in comparison to other education systems in Europe or Asia (OECD, 2018; Solomon et al., 2018).

One of the examples of a successful collaboration between universities and companies is a long-lasting cooperation of the major US universities (e.g. Massachusetts Institute of Technology) and Silicone Valley in California state (Hindle, 2006).

Besides, after obtaining a bachelor's degree, students have an opportunity to continue their study and to study by MBA program (Master of Business Administration). This enhances their chances for a successful career in business and management fields. Stanford University, Harvard University and Pennsylvania University are regarded as the best US universities that provide business education (Robinson & Hayes, 1991).

Within these programs, a lot of attention is paid to the teaching staff. The teachers are not simply a source of information for the students. They can become role models and increase the effectiveness of learning. The students of entrepreneurial programs learn mainly from the teachers who are entrepreneurs themselves (Entrepreneurship in American Higher Education, 2006).

More than 1500 US colleges and universities offer entrepreneurship education. "*Small Business Management*", "*Entrepreneurship*" and "*Enterprise Founding*" are the most popular disciplines. It is not a surprise that participation level of the entrepreneurship programs graduates in founding of new enterprises is thrice higher than among the graduates of other economic programs. Moreover, the annual income of the entrepreneurship programs graduates is 27% higher than the average annual income of the graduates of other economic disciplines (Sousa & Almeida, 2014).

In the USA, entrepreneurship usually relates to big enterprises and companies. That is why, entrepreneurship programs favor the development of a potential for big business management (Streeter et al., 2011). Whereas in Europe entrepreneurship is often oriented towards small and medium business. That is why, entrepreneurship programs are mainly represented by education programs that focus upon acquiring of the skills that are needed for small business management (Wilson, 2008).

The empirical study consisted of a stage of instrument development specific to the research context, as well as a stage of hypothesis testing. The results of hypothesis testing, involving a sample of 153 owner/managers of Small and Medium-sized Enterprises (SMEs), provided evidence for the direct and indirect contributions of the entrepreneur's opportunity, relationship, innovative, human and strategic competencies in affecting the long-term performance of an SME via competitive scope and organizational capabilities (Man et al., 2008).

The development of entrepreneurship education in Europe started in 2000s. It is focused upon understanding of the essence of entrepreneurship. However, in comparison to the USA, the education system of the European states in this field is not developed on such a high level. Only the biggest and the most progressive universities can afford themselves entrepreneurship

education. This problem is common for the domestic education as well: entrepreneurship education programs are rather rare in the Russian universities. The content of such programs is mainly theoretical in its character (Pihkala & Lahikainen, 2018).

The pedagogical challenge is that entrepreneurial competencies are more holistic and psychologically oriented than traditional subject-matter skills. Entrepreneurial skills are learned via pragmatic real life development projects (Taatila, 2010).

The experience of entrepreneurship education in Denmark is also worth mentioning. It is organized on the national level. In 2012, the program “*Denmark is the nation of solutions*” was founded. It directly related to all education levels. Students are regarded as a significant resource for the development and introduction of the economic innovations. That is why, they are assigned with the most important role (The Danish Government, 2013).

One more program that was elaborated by the Danish government is “*Strategy for education and training in entrepreneurship*”. It was created in order to train managers who are competent in entrepreneurship field. Besides, it is focused upon training the workers who will function both within business structures and state institutions and will be competitive in the world economic market. This program will be integrated directly into education program of the economic universities (The Danish Foundation for Entrepreneurship–Young Enterprise, 2011).

## CONCLUSION

710 students of economic faculties took part in the research. The results showed that the majority of the students (53%) of entrepreneurial faculties were not ready to take part in entrepreneurial activity. Insufficient development level of entrepreneurship education is the main reason for this situation. The lack of necessary skills and knowledge and the absence of practical experience that the students were to acquire during their 4-year study were mentioned among the reasons for their lack of readiness.

Besides, even those students who demonstrated the willingness to start their own business, don't plan to do it within the next 5-7 years. Like the students who are not ready to be involved in entrepreneurship, 65% of the future entrepreneurs pointed to the lack of practical skills and knowledge as the main reason for their unwillingness to start their business right after graduating from university. This result can point to the overall lack of self-confidence among graduates due to the absence of the skills and knowledge that would ensure their entrepreneurial success.

At the same time, their self-descriptions prove that they possess the following necessary traits that form a successful entrepreneur: responsibility, independence, ability to predict, readiness for risk-taking, ambitiousness.

Besides, only 27% of students stated that their parents or close relatives were involved in entrepreneurial activity. The lack of readiness of the rest 73% students can be conditioned by the absence of a family model. At the same, the majority of the students who are involved into family business (60%) plan to stay in it in the future. It can be concluded that the majority of the students who stated about their readiness for business when answering the first question, will continue their family business in future.

The reasons for the students' significant absence of readiness for entrepreneurial activity become evident in the answers to the second block of questions. In general, we can point to the students' dissatisfaction with entrepreneurship education process. 78% of respondents are not satisfied with the number of disciplines that are associated with entrepreneurship education. This is a significant problem of the entrepreneurial faculties programs, because it negatively

influenced the students' professional orientation. Moreover, 60% of respondents pointed to the incompetence of the teaching staff. This is also a problem, because the teachers' task is not limited to provision of theoretical knowledge. They must create a favorable environment where the students will be able to apply it in practice.

However, this issue related rather to the administration of each university than to the teaching staff. Some respondents mentioned about the use of the following popular methods in education: business trainings (10%), case-studies (7%), development of business plans (11%), business visits and trips (7%), development of start-ups (5%). These methods could be introduced as disciplines or individual initiatives and significantly increase the knowledge level in this field.

Only 45% of students mentioned about the programs or probations that favored entrepreneurial activity and that were introduced in their faculties. 85% of students stated that they were ready to directly participate in them. This high indicator points to the students' willingness to be deeper involved into entrepreneurial field.

Current condition and requirements of labor market, alongside with the development of digital economy create the need for a new kind of specialists who would be more competent and qualified. Education of such specialists requires the revision of the existing entrepreneurial programs, of their theoretical and practical components as well as the disciplines and methods that could be outdated and ineffective.

That is why, this experience and the results that already exist can be used by administration of the universities that took part in the research. Each faculty must address all the critical remarks that were formulated by the students and introduce the lacking methods, revise the content of education program in order to exclude the disciplines that do not directly relate to the students' specialization. Besides, the issue of advance training for the teaching staff must be addressed in order to increase the effectiveness of entrepreneurship education and to train successful entrepreneurs. Besides, this research model can be applied by other Russian universities and faculties of economics in order to diagnose possible problems.

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