

STATE OF UNIVERSITY–EMPLOYER INTERACTION MODELS IN RUSSIA

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ABSTRACT

The relevance of the research topic is due to the internal reforms of the Russian education system in accordance with the Bologna Declaration and external changes in the situation on the labor market, since the education at the University For the majority of students should lead to employment in the specialty. The aim of this study is to identify the promising development of Russian universities to improve the quality of education and employment of graduates. And for this purpose, traditional and innovative options for cooperation between universities and employers are considered. Based on the analysis of the data set (the legislation of the Russian Federation in the field of education, the experience of Russian and foreign universities, methodological developments, sociological surveys), proposals are made to improve the structure of the educational process in order to ensure the demand for young professionals (graduates) in the labor market in the future. The study is of practical importance for higher education institutions in the development of methodological programs and strategic planning of educational activities. Further research can be continued by focusing on the chosen educational direction, taking into account the specifics of the future profession, and providing detailed content of the educational process for the selected subject block.

Keywords: Higher Education Institution, Educational Process, Business-University Collaboration, Labor Market, Students Recruitment Projects, Undergraduates Employment.

INTRODUCTION

The learning process is a constantly evolving dynamic structure. Today, its modernization is particularly relevant due to the rapidly changing external conditions, expansion of innovation processes, focus on globalization and internal large-scale restructuring of the Russian education system. Very few technologies and ideas produced at universities are commercialized and turned into successful businesses (Lvova, 2019). The modern economy places ever higher demands on the level and content of higher education, which must comply with the information technology method of production and be very sensitive to the requirements of the labor market, focusing on changes in the current and immediate situation. At the same time, employees, in addition to professional competencies, are required to demonstrate

flexibility, the ability to retrain and quickly learn new technologies. The development of creative thinking and using successful projects as case studies play an important role (Lee & Kolodner, 2011; Kuzminov & Peskov, 2017). The curriculum is designed to realize the national goals and expects students to be able to process, reason, and conceptualize in concrete and abstract realms in solving problems (Mustika et al., 2019).

According to Organization for Economic Co-operation and Development (OECD) research, potential workers should be selected through a list of constructs: Adaptability, Compassion, Conflict resolution, Creativity, Critical-thinking skills, Curiosity, Empathy, Communication skills/Collaboration skills, Equality/ Equity, Global mind-set, Goal orientation and completion (e.g. grit, persistence, Gratitude, Growth mind-set, Hope, Human dignity, Identity/Spiritual identity, Integrity, Justice, Manual skills for information and communication technology (related to learning strategies), Manual skills related to the arts and crafts, music, physical education skills needed for the future, Meta-learning skills (including learning to learn skills), Mindfulness, Motivation (e.g. to learn, to contribute to society), Open mind-set (to others, new ideas, new experiences), Perspective-taking and cognitive flexibility, Pro-activeness, Problem solving skills, Purposefulness, Reflective thinking/Evaluating/Monitoring, Resilience/Stress resistance, Respect (for self, others, including cultural diversity), Responsibility (including locus of control), Risk management, Self-awareness/Self-regulation/Self-control, Self-efficacy/Positive self-orientation, Trust (in self, others, institutions) (OECD, 2018).

Various studies reveal that impartation of entrepreneurial culture in undergraduates is a viable strategy for reducing the gap between the graduation year and employment (Akinwale et al., 2019). Despite the ongoing reforms (Polomoshnov, 2011), the Russian system of higher education still does not meet the requirements of the labor market—neither the quality of education, nor to ensure a sufficient number of demanded specialists. According to UNDP research, Russia is on the 32nd place in the ranking of countries in the world in terms of quality of education. According to Rosstat, only 11 Russian universities are in the top 500 best universities in employment, the leading positions in which are occupied by MSU and SPBU. This means that there is a really big problem with the employment of graduates in Russia. But at the same time, the labor market is inert perceives some innovations in modern education, for example, bachelor's and master's degrees (Tsiguleva, 2014) or distance education programs (Barber et al., 2013). Moreover, potential University students prefer to attend advanced online courses that provide deeper and practically adapted specialized knowledge, which suggests the need to modernize the education process. (Bochkareva et al., 2017; Merzon & Ibatullin, 2017).

Based on the above, the establishment of a constructive dialogue between universities and employers is becoming increasingly difficult and is an important component of the renewal of the educational process, which is necessary for the revival of the Russian system of higher education (Akhmetshin et al., 2017).

METHODOLOGY

This study aims to explore university–employer interaction models in Russia, methods of improvement of accordance between new requirements for employment and skills of undergraduates, their chances for a better job on specialty. We consider statistical data, main educational trends, innovative methods and forms of educational process organization targeted at helping students to succeed in their future career faster.

The following data sources were used for statistical analysis: Rosstat Statistics; VTsIOM and the Levada Center surveys; UNDP study on the education index in different countries of the world; OECD Learning Framework 2030; Legal acts of the Russian Federation; mass media; publications of Russian and foreign scientists.

The study uses a systematic approach, a comparative analysis of statistical and descriptive data and generalization of the results.

RESEARCH RESULTS

Indicators of the Education Statistics in Russia

According to the data of the Ministry of education and science of the Russian Federation, published on the website of the Federal state statistics service, as well as according to Rosstat, in 2017 there is a constant decrease in the total number of higher education institutions and scientific organizations offering education for bachelor's, specialty and master's programs and, accordingly, the number of students enrolled in these programs.

The total number of higher education institutions and scientific organizations engaged in educational activities under the bachelor's, specialist's and master's programs in 2017 decreased by 6.4% (by 52) compared to 2016: the number of state and municipal organizations decreased by 2 (-0.4 %) and private-by 50 (-15.8%). Moreover, the decrease is observed in the number of students receiving higher education: in 2017, their number decreased by 153.6 thousand, mainly in private organizations (by 19.6%) (Federal Service of State Statistics, 2017). The statistics are given in Table 1.

Indicators	2017	% of 2016	2016	% of 2015
The number of higher education organizations and scientific organizations that carry out educational activities under bachelor's, specialist's, and master's programs	766	93.6	818	91.3
The number of students studying under bachelor's, specialist's, and master's programs (in thousands)	4245.9	96.5	4399.5	92.3
The number of students matriculated for bachelor's, specialist's, master's programs (in thousands)	1142.0	98.6	1157.8	94.8
The number of graduated bachelors, specialists, masters (in thousands)	969.5	82.5	1161.1	89.3

Source: Rosstat.

Based on the data obtained in the table, we can conclude that in Russia every year there is a tendency to reduce the number of universities that offer various forms of education, which is the reason for the later low ratings of education in the strand and forces the search for new innovative methods.

Similar changes have already occurred in the education system in a number of countries (UK, USA, South Africa, Finland, Austria, etc.), which has experienced several waves of mergers and acquisitions (M&a) (Abankina et al., 2012), as a result of which she gained some positive experience.

Trends to Achieve the Subsequent Employment of Graduates in Russia

The first trend to the solution of the problem in modern reality is the expansion of higher education institutions in order to improve the efficiency of the Russian educational system and the quality of education (Gapsalamov et al., 2017).

The second trend, directly related to the organization and form of the educational process, can be considered a gradual expansion of the introduction of distance education, which makes it more accessible: the number of students studying remotely (distance education technology), based on the use of computers and telecommunications networks, increased to 10.8% in 2017 (from 10.5% in 2016) (Federal Service of State Statistics, 2017).

The third trend demonstrates the change in attitude to education of Russian students that has occurred in recent years. Despite the fact that in 2013 the proportion of students satisfied with the chosen profession increased, however, a financial aspect of the profession also remained important, and its importance among young men increased in 2013, compared with young men in 2004 (Kosintseva et al., 2017). According to systematic surveys conducted by the VTsIOM, an increasing number of Russians now believe that the ratio of students to education is improving: from 19% in 2013 to 37% in 2017 (and 47% among families with students). At the same time, the proportion of those who hold the opposite opinion fluctuates within a narrow range of 26~29% (28% in 2017) (VTsIOM, 2017).

These educational trends, quality, accessibility and interest in learning, logically should have a positive impact on the subsequent employment of graduates of higher education institutions. However, there is a reverse trend. According to opinion polls conducted by the VTsIOM, almost half of the respondents (47%) believe that the situation with the employment of graduates in the specialty is deteriorating (while 13% said about improvement), and another 40% believe that new students find it increasingly difficult to find a high-paying job (11% hold the opposite opinion today, compared to 18% in 2015) (VTsIOM, 2017). The situation can be considered from the point of view of the employer and the subsequent employment is seen as the most important incentive for higher education. A summary of opinion polls conducted by the (by telephone survey based on stratified two-phase random selection of landlines and mobile phones of 1800 respondents) is given in Table 2.

How do you think the situation among students changes for the following aspects? (closed-ended question, one answer for each line, in %)					
Aspect	Year of survey	The situation is changing for the better	The situation is changing for the worse	Nothing changes	Not sure
The students' attitude to the study, their desire to learn	2017	37 ↑	28	21	14 ↓
	2015	30↑	26	23↓	21
	2013	19	29	32	20
The level of the graduates' proficiency	2017	30	32	25	13 ↓
	2015	29↑	28	21↓	22
	2013	16	31	33	20
The opportunities for graduates to find a job according to their major	2017	13 ↓	47 ↑	31 ↑	9 ↓
	2015	18↑	40	23↓	19
	2013	10	44	30	16
The opportunities for young professionals to get a highly paid job	2017	11 ↓	40	40 ↑	9 ↓
	2015	18↑	40↓	23↓	19
	2013	8	45	32	15

Source: VTsIOM; bursts of 5% or more are indicated by arrows.

When assessing the professional knowledge of students at different levels of education, employers on average put graduates of higher educational institutions higher than graduates of technical colleges, as well as vocational lyceums and schools, but they are also given a low score (3+). However, managers of enterprises estimate the ability of graduates of higher education institutions to retrain and master new skills above 4 points (Bondarenko, 2013; Kilinc, 2017). At the same time, in the opinion of Russian employers, the diploma marks turn out to be secondary compared to having professional work experience, i.e. the graduate's professional experience of work, including internships and practical training, is a more significant factor for the decision to hire a specialist (Bondarenko, 2013; Akhmetov, et al., 2014). Thus, it turns out to be a vicious circle, in which the employer wants to have an employee with real experience, and the student has nowhere to obtain it. Often, the search for a place of practical training—an important part of the learning process—is the student's responsibility. He or his parents apply to the people they know who simply sign a paper about internship at an enterprise or organization. Such a formalization, of course, affects the quality of education and subsequent employment.

Methods of Cooperation between University and Enterprise

1. **The enforced method:** The method used involves a general return to the appointment of graduates to the enterprise. For example, a bill has recently been submitted to the State Duma suggesting that students who studied at the expense of the budget should work in state institutions or organizations after their graduation during the same period as their education (Ignatova, 2018). The choice of this method is due to the need for full employment in the state. However, from a human point of view, it is simply inhumane, because not everyone wants to work in the specialty for which he studied.
2. **The qualitative method:** Due to the fact that the level of employment in the specialty in Russia is very low, one way to solve this problem is the cooperation of companies with trained University graduates. According to statistics from Rosstat, less than a third of employers surveyed take into account applicants and graduates. However, the interaction of foreign companies with graduates is becoming more and more popular. The percentage of specialists required by foreign employers is much higher than the percentage of employers in Russia. Due to the rapid development of this fact, it is necessary to look for ways to solve this problem, it is necessary to develop close relations between graduates and employers.

Models of Cooperation between University and Enterprise

Based on the analysis and systematization of the complex of practical and theoretical materials, three possible models of building mutually beneficial relations between the University and the employer are identified. Their description and examples of implementation are given in Table 3.

No.	Model	Examples
1	<p><i>Students' practical training at the initiative of the higher educational institution is a fairly traditional and widespread form of cooperation.</i></p> <p>An important point is the development of a curriculum that meets the current demands of the labor market, and ideally, predicts these demands for several years ahead.</p> <p>In this model, the employer directly participates in the part of the training process—practical training.</p>	<p>Freiburg University in Germany developed and implemented a bachelor's degree program "<i>Teaching Technology Development</i>" aimed at "<i>obtaining professional skills in planning, developing, applying, and evaluating training programs in various activity fields</i>" (Seel, 2011).</p> <p>The program includes theoretical and practical courses. It's important component is practical training outside the university, which needs to take place at a company or organization that uses pedagogical design or operates in this field during the 3rd to 5th semesters. At the same time, it is the University that actively assists students in the search for a relevant company. The Center of Professional Skills at the university organizes internships, helps to improve practical skills, develop social competencies, and establish professional contacts (Seel, 2011).</p> <p>In the example above, the university initiates the interaction, which facilitates the subsequent employment of graduates.</p>
2	<p>Involvement of individual employees of enterprises directly in the teaching is an unreasonably unpopular model, which has now extensive opportunities for implementation due to the distance education model development.</p> <p>The importance of including teaching practitioners in the educational process is discussed by foreign researchers as well (Barber et al., 2013; Ibatullin & Anisimova, 2017).</p>	<p>The Faculty of Computer Science and Information Technology (CSIT) of the Saratov Chernyshevsky State National Research University involves the current leaders and employees of relevant organizations of regional, national, and world level in the training of IT specialists. They also hold Employer Days. The most active partners of CSIT are: Epam Systems, Mirantis Inc., NetCracker, GridDynamics and many others (Kudrina & Fedorova, 2015; Saratov State University, 2017).</p> <p>According to 2014 statistics, about 81 % of graduates were employed at the time of their graduation (Kudrina & Fedorova, 2015).</p>
3	<p>Creation of large-scale multi-channel symbioses.</p> <p>In this model, employers take a direct part in developing training programs that meet their needs.</p>	<p>In the United States, the system of North Carolina municipal colleges has teamed up with the Association of Producers to align the training materials and curricula with the needs of companies that are members of the Association. This symbiosis is recognized as an extremely successful example of cooperation between higher educational institutions and business structures (Barber et al., 2013)</p>

Source: Proposed by the author, based on a set of practical and theoretical materials.

It should be emphasized that the university–employer interaction is far from being limited to these models only, but they are the most promising from the author's point of view. Among successful international ways of the inter-relationship between recruiters and universities played out in practice, targeting must be mentioned especially. For example, a close physical proximity to a university facilitates contributes to those universities being targeted for recruitment; visiting a particular university physically in a number of years also matters. And monitoring is used to gauge the effectiveness of particular targeted activities or campaigns with specific institutions to check where more quality candidates come from in previous years (Pollard et al., 2015). A number of factors, such as demographic situation, social norms, attitudes towards behaviour through university environment and self-efficacy, influence students' entrepreneurial interests (Akinwale et al., 2019).

The Examples of Productive Implementation of Assistance Programs

From the government side: Project 5-100 was launched in 2012 by the Ministry of education and science of Russia in accordance with the presidential decree. It is to increase the reputation of Russian higher education and promote at least five universities participating in the project in the top 100 authoritative world rankings. The main tasks to be solved are: building research capacity, improving the quality of educational programs, stimulating creative and scientific activities, attracting foreign teachers and students to Russian universities, raising the rating of education through the introduction of new programs, things that allow students to receive more education (Kuzminov & Peskov, 2017; Project 5-100, 2019; Ministry of education and science of Russia, 2017).

From the business side: Vladimir Potanin charitable Foundation, which provides support in the form of scholarships and grants to the best students and teachers. For example, the Fund pays foreign internships to the best students of MGIMO, selected by the expert Council of the University. This program is aimed at training specialists of the Russian diplomatic service and is implemented jointly with the Ministry of foreign Affairs of Russia (Potanin, 2019).

International projects: Participation in different projects, such as “*Twin campus project*” between Russia and Finland (Lvova, 2019) or “*ICT Literacy—Learning in digital networks*,” sponsored by Cisco, Intel, and Microsoft (Wilson et al., 2017), gives students certain benefits, such as an opportunity to work on real-world tasks, acquire professional experience, develop a practice-oriented approach to problem-solving and enable students with the skills to succeed in future career.

DISCUSSION OF THE RESULTS

Key Points

1. The cooperation models described above are consistent with the models of universities of the future, presented in the publications of foreign (Barber et al., 2013) and domestic researchers (Kuzminov and Peskov, 2017).
2. Work experience is one of the main factors for the successful employment of a graduate; therefore, the development and implementation of practice-oriented courses is a competitive advantage of a contemporary and future university.
3. Various forms of symbiosis, based on globalization, scientific and technological progress, and online learning opportunities, in which the university acts as the unifying structure, the “*intellectual core*”, are possible. For example, the “*Specialist*” Center for Computer Training at Bauman MSTU is an authorized Cisco training center; its certificates are in demand and rank highly worldwide (Specialist Training Center at Bauman MSTU)
4. Development of real support for universities by the government and business is of obvious importance.
5. The need for implementing integrated solutions, including cooperation programs in the strategic activity planning of a progressive higher educational institution is obvious.

The Tasks to Be Solved

- To improve the quality of educational services, confirmed by external monitoring.
- To achieve better satisfaction of students and potential employers with the education quality.

- To improve flexibility and update the curriculum content, to use new learning technology.
- To develop research activities.
- To form leadership qualities.
- To promote the university's brand.

CONCLUSION

In addition to changing the content of educational programs according to the specific features of certain spheres, subject blocks, or disciplines to comply with the existing and predicted socioeconomic demands, an important aspect is the reconstruction or creation of the university–employer interaction models in order to meet the needs of each party through the involvement of the latter in the educational process. Thus, by increasing the demand for its graduates in the labor market, the university creates a certain brand, improves its own ranks, and, eventually, increases financial investments; the employer receives first-hand information about a potential employee, acquires the opportunity to train him in the necessary knowledge and skills as early as during his education and to assess his compliance with the existing organizational culture. The education process modernization through involving employers corresponds to the existing demands and future realities. Such partnership helps to reinforce the competitive advantages of both an individual region and the whole country, being a center for intellectual resources and human capital, to promote innovative forms of entrepreneurship, and to develop and strengthen the economy.

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