

# Education System Improvements as One of the Factors of Innovative Development of Russia

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**Abstract** — The relevance of this study is due to the fact that currently Russian educational system is ineffective and can't be an element in the innovative development of the country. According to the statistics of influential international rankings of competitiveness of the best universities in the world, higher education institutions of Russia do not occupy the highest places. Graduates of a secondary vocational school and higher education institutions in a number of specialties are not in demand in the regional labor markets. The teachers and lecturers' work is not paid enough and is unpopular among the potential profession representatives. After the introduction of a two-level system of higher education (bachelor course, master course), specialty, which is a five-year course of study, is still present in the education system. The author has analyzed international studies in the field of education reported by authoritative world organizations – PISA-2015, The Global Innovation Index, The Global Competitiveness Report, GCR WEF, Human Development Index, The Good Country Index, Times Higher Education (THE), QS World University Rankings. A number of shortcomings in the Russian education system have been identified.

**Keywords** — *innovative development, education system, quality of education, labor market*

## I. INTRODUCTION

Country's successful innovative development requires the education system to be modern and meet the requirements of the labor market, to have a flexible system that can be rebuilt in an adequate time according to the changes taking place in this market.

The impact of the education system quality on the economic development of the country is not currently studied enough in the scientific study, which reflects the relevance of the problem.

It is necessary to produce highly qualified workforce that will be in demand in the labor market, to be able to predict the demand for certain types of specialists in the medium term (from three to seven years).

The quality of education in Russia is quite high. According to the results of participation in the international study PISA-2015, the following positive dynamics is observed:

1) in natural science literacy since 2006 till 2015, the position has changed from 37 to 32 place;

2) in mathematical literacy since 2012 till 2015, the position changed from 34 to 23 place;

3) in reader literacy since 2009 till 2015, the position changed from 42 to 26 place [1].

## II. ANALYSIS OF THE EDUCATION SYSTEM IN RUSSIA

In modern world, which is inevitably moving towards globalization, in order to strengthen the country's competitiveness in the world market, Russia should have education as a priority. Namely education, not financial opportunities or social origin, should provide an opportunity for career advancement.

Russian legislation guarantees citizens' free education at the level of primary and secondary general education; secondary vocational, higher and additional education is provided on a commercial and competitive basis, which means that the university education of school leavers having the best marks by the results of entrance examinations will be paid by the government.

Analysis of the low prestige of the teaching profession, as well as the lack orientation of educational institutions for the regional labor markets, is necessary.

There are a number of areas where changes are needed:

1. increase of the prestige of the profession of teachers and lecturers.

The low level of wages, the ever-increasing and changing volume of unnecessary «paper» work and other reasons affect the qualification level of representatives of these professions.

2. strengthening of the orientation of secondary vocational and higher education institutions to the requirements of the Federal and regional labor markets.

There is a discrepancy between the diplomas of higher educational institutions graduates of certain specialties to the requirements of the labor market, who do not have the opportunity to find an occupation according to their diploma. The excess staff is in a back-office (accountants, lawyers, economists) and in the banking sector. The following specialties are in demand: drivers, freight forwarders, masters and workers in production, e-mail marketers, programmers, analysts, pharmacists.

TABLE I. AVERAGE ACCRUED WAGES OF EMPLOYEES ACCORDING TO PERSONNEL CATEGORIES AND TYPES OF ECONOMIC ACTIVITY IN 2017

Total by surveyed activities	Including, in rubles		
	senior officials	specialists	support staff
Agriculture, forestry, hunting, fishing and fish farming	51217	32075	20330
Mining operation	117075	85648	41705
Manufacturing activity	73624	46637	31020
Provision of electricity, gas and steam; air conditioning	74251	47177	26652
Water supply, water disposal, waste collection and disposal, pollution control activities	55601	36563	26526
Construction	85809	57352	34843
Wholesale and retail trade; repair of motor vehicles and motorcycles	86484	50508	31997
Activities of hotels and catering establishments	63990	40619	35148
Professional, scientific and technical activities	105027	57969	33190
Administrative activities and complementary services	64691	43708	35491
Education	50256	33254	16699
Health and social services activities	59417	36601	22981
Activities in the field of culture, sports, leisure and entertainment	47491	35041	23985

Compiled by the author on the basis of statistical data

### 3. Analysis of the transformation of higher education institutions.

Reducing the number of inefficient higher education institutions, the universities division into regional and Federal levels.

Regional level universities should take into account the demand arising in the regional labor market in order to teach graduates at the level of bachelor's degree and specialist degree.

Federal level universities should focus on research work at the master's and postgraduate levels.

## III. EVALUATION OF THE RUSSIAN EDUCATIONAL SYSTEM AT THE INTERNATIONAL LEVEL

### A. Russia's place in reputable international rankings

For the innovative development implementation, Russia needs to improve the educational service quality. The level of education and science has a significant impact on the country's economic development. Below are the data on Russia's position in some authoritative rankings developed by international non-governmental organizations and foreign universities (Table 1).

TABLE II. RUSSIA'S EDUCATION POSITION IN THE INTERNATIONAL COMPETITIVENESS RANKINGS IN 2017

Organization conducting the study	Name of the international index, number of countries	Russia's position	Key assessment criteria related to science and education
The Business School for the World (INSEAD); Cornell University, (Cornell University, USA); World Intellectual Property Organization (WIPO)	«The Global Innovation Index», 127 countries	45 place	«Human capital and science» [2]
The World Economic Forum (WEF)	«The Global Competitiveness Report, GCR WEF», 138 countries	43 place	according to criteria of «Quality of math and science education» Russia ranks 27 in Europe; according to criteria of «Health and primary education» – Russia ranks 56 in the world [3]
UON	(Human Development Index), 188 countries	49 place, very high level of human development	«Education expected duration: 15 years; Literacy rate: 94.6 %; Public expenditure on education 4.2% of GDP [4]
Authors: Simon Anholt and Robert Gowers, territorial development experts, branding and reputation management experts	«The Good Country Index», 163 countries	78 place	«Contributions to Science & Technology [5]

### B. International ranking of Russian universities

One should note that in the QS world University Rankings for 2018 the best country universities occupy the following positions: Lomonosov Moscow State University – 95th place, Saint Petersburg State University – 240th place, Novosibirsk State University – 250th place. [6] For a state setting ambitious goals, such indicators are not nearly enough, indicating a recognition lack of the Russian education quality in the international arena.

Let us note that in the prestigious ranking of the Times Higher Education (THE), in the preparation of which we considered the innovation and knowledge dissemination level, the quality of teaching and research activities, and efficacy of higher education institutions and the quality of their material base on the basis of financial indicators, the Lomonosov Moscow State University took the best position among Russian universities – 188 place.

### C. *Education system as a factor of innovative development of the country*

The purpose of this study is to show the importance of the education system in the country innovative development. As the outstanding leader of the USSR Stalin said, «Cadres are all-important». This statement was also repeated by Andrew Carnegie, founder of American steel industry. He said, «Take away my people, but leave my factories and soon grass will grow on the factory floors...Take away my factories, but leave my people and soon we will have a new and better factory». No country can build a highly developed society without the training of highly qualified specialists.

### D. *A number of problems in the education system*

One should to investigate some of the existing problems in the education system, which in the author's opinion consist in:

- low prestige of the profession-teachers and lecturers.
- insufficient orientation of secondary vocational and higher educational institutions to the requirements of the Federal and regional labor markets.
- necessity to transform higher education institutions, its division into Federal level universities and into the regional levels ones, which will allow to solve different problems.

### E. *Aspects of the education system development*

The report of Sir Michael Barber, a partner and a head of McKinsey's Global Education Practice, and Doctor of Philosophy in economy Mona Mourshed, McKinsey' partner, «How the world's best-performing schools come out on top», issued in 2007, aroused huge interest in the world educational community. According to the report education systems in different countries have achieved good results through a combination of three factors-involving the more talent in teaching, teachers' professional development and the policy for teachers giving equal attention to every student [7, 8].

The low performance of the best Russian universities in reputable international rankings to some extent due to the fact that the teacher work is not prestigious. One should understand that funding levels of education, effective organizational structure of institutions, equal educational opportunities do not have a significant impact on the quality of students' knowledge, but the teachers training level does [9–12].

Training of qualified teaching staff is an investment in the innovative economy creation of the country.

### F. *Using education for the national interest*

At the present stage of its development, Russia can use the higher education system to disseminate its national and cultural values through the involvement of foreign students, including those who returned home received personal contacts in the Russian society, absorbed the country culture. Foreign students taught according to Russian standards will help integrate Russia into the world globalization and help improve cooperation with Russia by involving in communication their social circle. A certain number of foreign students who have

received Russian highly qualified education will remain in Russia, which means they may make a contribution to Russian innovative economy development [13–15].

## IV. DISCUSSION

Higher education institutions should be provided with enhanced funding and administrative autonomy in order to improve their competitiveness in the market of educational services and to organize mutually beneficial relations with the participants of innovative technology market. It is necessary to increase also the responsibility of higher education institutions for the quality of scientific research, graduates training quality who meet the requirements of regional development and objectives of the innovative economy. Educational institutions should be more focused on the regional labor market [16–20].

High status universities (Federal level) should not be tied to the regions, staff fundamental training for the whole country and research in various fields – these are their priorities. State control reduction, more independent style of management, as well as additional payments for effective work from the country budget will have a positive impact on the situation [21, 22].

Lower status universities (regional level) should focus on regional labor markets and specialize in applied sciences. Their internal autonomy should be expanded to create more advanced contacts with different branch of production and services at the regional level. While Federal funding remains at the current level, it seems it is necessary to strengthen the municipal authorities participation and attract private capital. This category of universities should not prepare graduates at master's level and postgraduate studies as well as be engaged in research activities.

## V. CONCLUSION

Based on the above the innovative country development can be realized in the presence of an effective education system at different levels. Training of highly qualified personnel is an integral part of the future prosperity and security of the Russia. This, in turn, necessitates certain changes in the education system.

The development of certain activities that will improve the quality of education, attract foreign students, as well as solve the problem of employment of graduates of secondary vocational and higher education, is currently relevant.

The analysis showed that the current situation in the field of education is not fully consistent with the country's task of innovative development. The changes that have taken place in the education system over the past 20 years have not yielded the expected results, they will have serious consequences for the country as a whole, contributing to the inhibition of its innovative development.

All the mistakes made in the reform of the country's education system clearly demonstrates the position of the best universities in the international rankings of competitiveness in education. This shows that significant changes are needed in higher education, in particular the division of higher education

institutions into Federal and regional, which will solve different tasks and perform different functions.

Taking into account the process of globalization it is necessary to raise the position of Russian higher education institutions in international rankings.

The article proposes certain measures to improve the education system in Russia. Attracting foreign students to higher education institutions of the country can be used in the framework of national interests in promotion of Russian culture, traditions and customs.

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