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DEVELOPMENT OF RUSSIAN UNIVERSITIES IN THE INFORMATION ERA

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Abstract

The article considers the problem of developing Russian universities in the information era that poses civilization challenges for them, but at the same time provides new incentives for enhancing their functioning. The authors identify certain positions of the strategy for Russian higher education development, which require reconsidering and correction. Due attention should be paid to the strong involvement of public institutions, teachers, students and employers into the decision-making process in the sphere of higher education as well as to creating competitive educational products and their qualitative evaluation. An integrated programme of developing Russian science in the information age should be designed to promote the internationalization of the leading Russian universities in keeping with the principles of the Strategy for mobility development within the European higher education area. The authors suggest the most important steps which are the most conducive to the optimization of universities' international activities and development of their innovative potential.

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1. Introduction

The information era, following the post-industrial stage in society development, is transforming the architectonic and structure of higher education. The intensification of information technologies and the growing scientific and technical progress pose new challenges for universities, at the same time stimulating the development and enrichment of forms and methods of their work. These processes are interrelated and should be analyzed in combination.

Russian universities are faced with the task of immense complexity – to integrate into the global education space while preserving traditions and the cultural code intrinsic to the national system of higher education (Boguslavskii, 2016).

2. Problem Statement

Education in a post-industrial and information society cannot be implemented in the same format as in the Enlightenment era and under the conditions of the Industrial Revolution (Robinson, Aronica, 2015). The modern world witnesses deep processes of transition from classical to postclassical paradigm of higher education which transforms teacher and student roles (Neborskii, 2015). Integration with industry, global mobility, large-scale implementation of digital technologies, competitive power, and free access to information – such are the key traits of a modern university in the information age (Neborskii, 2015).

The research shows that the Russian society makes the following expectations of its universities: broad access to distance learning; flexibility and variability of educational programmes; implementation of innovative teaching forms and methods; applicable and practice-oriented education (Miroshnikova, 2015).

However, "catch-up modernizations" prove inefficient in the intellectual sphere. Introduced from outside, they tend to passively adopt borrowed patterns rather than work out their own priorities, change existing conditions, and set new goals (Boguslavskii, Lelchitskii, 2016). Under globalization, it becomes an urgent need to preserve native cultural traditions strengthening the uniqueness so important for the national economy (Boguslavskii, Neborskii, 2016) The 2010s in Russia are characterized by the shift from the liberal western-inspired educational policy to the traditional conservative strategy, which is accompanied by retro-innovations and the reproduction of the national cultural code (Boguslavskii, Neborskii, 2015). In these conditions, it becomes important to determine the development vectors of Russian universities, which is the purpose of this study.

3. Research Questions

One of the major challenges confronting the Russian education system is the problem of financing and technical equipment of educational campuses and laboratories. According to OECD, the dynamics of federal spending on education is non linear and looks as follows: 2006 – 4.6% of the GDP; 2012 – 5.5% of the GDP; 2014 – 4.1% of the GDP. In addition, the Ministry of Finance of the Russian Federation plans to progressively cut the expenditure on education: 2017 – down to $245mn; 2018 - $235mn; 2019 - $225mn. The federal spending in Russia for the period 2000-2012 increased from $13bn to $24.4bn, or

by 84.8%, whereas in China, for example, the expenditure growth made up 601% (from $30.4bn in 2000 to $213.1bn in 2012).

According to financial experts, the funding of the expanding Higher education in the BRICS countries is insufficient, which leads to low-quality teaching, limited access to higher education, and the rise of dropout rates Altbach, 2013).

A full-scale integration into the information space and the global research and education system is impossible without appropriate technological infrastructure. At the same time, a successful implementation of the programme on intellectual property rights transmission and greater autonomy for profit-making activities will give universities an opportunity to raise fresh funds and gradually broaden the range of financial resources.

Information technologies are transforming the educational paradigm of universities (Boguslavskii, 2016). Vigorous attempts are being made to validate online courses in university diplomas (Beckle, 2016). Numerous platforms emerge and develop, such as Coursera, Academic Earth, edX, iversity, regarded by some experts as competitive or alternative forms of higher education (Sanchez, 2013). The similar platforms developing in Russia ("Lectorium", "Universarium", "Uniweb"), could not only serve as an alternative source of education, but also attract foreign distance students. Notably, the students of ITMO University (St. Petersburg) showed the best results at the International Collegiate Programming Contest (Minsky, 2016).

However, there is an opposing viewpoint: its advocates argue that MOOC courses will not replace traditional forms of education (Pope, 2014). A key point of the discourse is a teacher-student interaction; according to opponents of distance learning, computers cannot substitute for face-to-face communication (Cerr, 2012).

4.   Purpose of the Study

The aim of the research undertaken by the authors was to analyze the current position of Russia's higher education system and identify the problems requiring solution. The first stage of the investigation involved analyzing and interpreting relevant scientific literature and various documents, including state programmes, projects and conceptions. During the second stage, experts and actors in the sphere of the Russian higher education were interviewed.

The intermediate research results are put forward for discussion in the present article.

5.   Research Methods

The study of the problem Russian universities development in the information age is a specific research related to foresight methods (futures study). This methodology is based on variations of development of the future and implies interdisciplinary inclusion of social sciences. For this study, the method of expert unstructured interview was chosen. The sample included representatives of the faculty and administration of several Russian universities.

Comparative methodology is another important component of the study. The identification of significant indicators in the evolution of the modern university and the educational space in the world contributed to the identification of specific indicators on which the study of Russian universities

development was based. Such indicators were: educational product, science and internationalization of universities in the world educational space.

6. Findings

As becomes evident from expert consultations, higher education institutions should not be evaluated on the same criteria as industrial enterprises. They do not make products, and do not aim to make profit. Their multifaceted and manifold accomplishments cannot be measured as explicitly as the efficiency of enterprises which produce goods while rationally using resources. This makes an objective evaluation of higher education institutions' activities a challenging task, which cannot be only confined to formal indicators and figures. Unquestionably, statistical measurement of such indicators as the number of publications, the type and amount of scientific awards is necessary for the analytical review of a university's research output. However, many experts agree that in practice this evaluation method often turns into a manipulation and punishment tool. To avoid this, the weaknesses revealed in a university's research activity should be subsequently eliminated.

In the course of research work, the authors identified those positions of the strategy for Russian higher education development which require reconsidering and correction.

First, an *authentic educational product should be created in the context of the global education space*, which would facilitate and promote the Russian culture and language. It is particularly important in the current socio-political situation, when the knowledge economy, based on original competitive technologies, yields profit only for participating actors. This priority was formulated at Presidium meeting of the Presidential Council for Strategic Development and Priority Projects, August 2016.

Second, it is necessary *to provide students with the real opportunity to choose their own degree course scheme* – despite the fact that university curricula include elective courses, only a small number of students can take the privilege. This issue was hotly debated by the Russian academic community; it was stressed that in regional universities students are seriously limited in their right to choose a degree programme (Vakhitov, 2013). However it is obvious that further development of competition in the education sphere, and educational service customer satisfaction under "new public management" cannot be achieved without realizing in practice the learners' right to course selection.

Third, *teaching programmes should be constantly renovated with consideration for graduates' and employers' opinions* – a lack of innovation culture leads to reduction in the quality of education product. However, the involvement of public institutions, teachers, students, and employers into processes of decision-making, developing education standards and improving training programmes is a problematic issue.

The development of a modern Russian university is impossible without high-level research activity. It is the organic combination of two elements – research and education – that has played the major role in the increase of education quality in such countries as the U.S., Japan, the Netherlands, Germany, Switzerland, Israel, China, and South Korea. As long as research institutions are separated from universities, links between science and education drastically weaken. Many experts agree that separation between basic science or medical science which are within the Russian Academy of Sciences, and the higher education system prevents Russian universities from becoming competitive at an international

level (Ellie, 2016). It is important to create conditions aimed at supporting and development of universities in this sphere:

- First*, to allocate grants to be implemented in co-operation with employers* – the stimulation of important applied research and making public, private, medical, social, cultural and other types of organizations, grant co-implementers can diminish the formal character of research and help establish links between university and world of work.

- Second, *to develop business incubators and venture investment* within the legal framework created by the government. The Bayh-Dole Act of 1980, U.S., is one of the most successful examples (Mowery, 2001).

- Third, to support national journals which are indexed in the international databases *Web of Science, Scopus, Agris, Springer* – inclusion of RSCI (Russian Science Citation Index) into Web of Science platform will help the Russian science enter the world arena. The number of English language papers authored by international research teams showed an impressive growth in the period 1995 – 2012: Singapore – by 12 times; China – by 10 times; South Korea – by 7 times; Germany and Finland – by 2 times (Marginson, S. (2014). However, open remains the question as to what extent international scientists are ready to rely on regional platforms and study and cite scientific papers by Russian authors. It is known that the most trusted are the journals with established reputation, which means that it is necessary to create such conditions for individuals and research teams which will allow them to enter the global research systems – for example, to allocate grants for appearing in reputable international journals, or finance their access to the platforms Web of Science, Scopus, Agris, Springer.

- Fourth, *to introduce the practice of conferring science degrees by universities themselves*, as it is directly related with their reputation. This practice has its drawbacks, but it is more flexible and better reflects a university's research performance than the formal indicators.

- Finally, *to encourage scientific collaboration with foreign partners* – the current political situation makes it extremely important for Russia, though complicated by political sanctions and restricted financial resources (Boguslavskii, Neborskii, 2016).

High performance of Russian higher education at the global level can be achieved via the Programme for internalization of universities in keeping with the principles stated in the Strategy for mobility development within the European education space. Among the most important steps provided by the Strategy, the authors identified those which are the most conducive to the optimization of universities' international activities and development of their innovative potential.

First, developing the strategy for internationalization of particular universities in all spheres (teaching, research activity, administration, post-graduate education).

Second, *improving the legal base of the internationalization process* (simplified procedure of joint programmes accreditation, more flexible curriculum planning).

Third, *creating conditions for cultural integration of international students and visiting scholars* (international offices, advisory centres, foreign language and intercultural communication courses for host universities' staff, distance Russian language courses for potential foreign students).

Fourth, *enhancing student and faculty international mobility* (it is necessary to stipulate it in university curricula).

Fifth, developing a package of measures aimed at establishing partnership relations with foreign universities for the purpose of elaboration and implementation of joint educational programmes. It is found that special attention should be paid to participation of Russian universities in transnational education and research projects with the substantive support of scientific funds.

Sixth, *enhancing Russian universities' educational and research attractiveness on a global scale*. According to the research findings, the following measures could be recommended for Russian universities: more flexible admission requirements for international students (the possibility to design an individual learning route with fewer compulsory courses, consideration for the need to learn a foreign language and adapt to local conditions); organizing a tutorial system; the development of the information system for Russia's universities; inviting foreign lecturers on a permanent or short-term basis. According to respondents' opinions, a comfortable learning, research and living environment is an important part of academic mobility.

Finally, *implementing programmes for postgraduate international students* providing for the possibility of defending a thesis in English (Boguslavskii et al., 2016).

7. Discussion

The study identified a number of issues for discussion. During the expert consultations and interviews, the most important adjustments were identified and summarized; the need to introduce them into the development strategy of Russian higher education becomes obvious. Certainly, the proposed adjustments are non-regulatory and open to discussion among the scientific and pedagogical community and administrators. It is important to emphasize that the results of the study, obtained through the analysis of the three indicators (educational product, science and internationalization) are in many respects consonant with the logic of the development of the world educational space and basically have a legal and resource character. How possible is their implementation possible in the concept of "new public management"? To answer this question, it is sufficient to turn to the experience of the BRIC countries and the Latin American region, where the role of the state, especially at the stages of the formation of modern university models, was also quite high. It is quite obvious that the necessary changes require a certain measure of responsibility. But, according to most experts, such changes can be implemented at the legislative level and in the practice of leading Russian universities in the next 5-7 years.

8. Conclusion

As the research shows, the universities of Russia are still faced with a number of challenges on their way to the most effective fulfilling their scientific, educational and creative potential. Trends are evident, however substantial corrections are required to be made for the development of the "new public management" model chosen for university management system.

The Russian government's concern about the state of affairs in the field is confirmed by including higher education into a number of priority projects as well as by new appointments in the Ministry of Education and Science in August 2016.

The government of Russia announced the Project 5-100, according to which there should be five Russian universities in the global TOP 100. Government funding has been allocated to a selected group of

leading universities in order to achieve this goal. Among them there are universities which have already achieved certain high ranking positions, though some experts attribute this to previous achievements (Yudkevich, 2015).

Despite external challenges – the globalization of education, the acceleration of information processes, political risks, – and internal problems such as an imbalance between the centre and regions, academic in-breeding, ageing of faculty, and lack of effective management, the Russian system of higher education enjoys a substantial development potential.

The research findings show that an international collaboration, joint research projects, publications in international journals, and distant online conferences organized by Russian scientists are on rise. The number of international publications in the period 1995 – 2012 increased from 5509 to 7413, which makes up 35% (Marginson, 2014).

Besides, Russia's higher education system boasts the continuing strength in physics, natural science, and engineering. According to a number of expert respondents, these fields, in case they are effectively managed, can become the most attractive for international students and faculty,   active partnerships and joint authorship.

Russia's higher education and research capacity is fairly strong. After necessary adjustments of the existing elements, it is important to replace the policy of "catch-up modernizations" by such strategy which would promote development via creating national education products and services competitive in the global education market (Boguslavskii, Neborskii, 2016).

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