Russian System of University Education: Issues of Institutional Effectiveness

Sistema Ruso de Educación Universitaria: Cuestiones de Efectividad Institucional

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ABSTRACT:
Purpose: Systematization of informal institutional effects which accompany formal institutional changes during reform of the system of university education in Russia and development of recommendations for increase of institutional effectiveness of Russian system of university education. Structure/methodology/approaches: Structure of the article is based on comparison of main targeted direction of the policy of educational reforms and related com-plex institutional effects. The methodology includes descriptive, evolutionary, and causal institutional analysis, and the method of overt observation over institutional changes. Results: Three main types of informal institutional effects are determined, related to reforms of Russian university education – imitation of transplanted institutes instead of convergence with European institutional model, hyper-bureaucratization instead of standardization of educational processes, and domination of quantitative evaluation (quantification) of institutional changes instead of high-quality modernization and optimization of the system of higher education. Originality: Unlike other researchers (E. Balatsky, M. Blyakher, V. Volchik et al.), who focus on secondary causes of institutional inefficiency of university sys-tem of Russia, this article determines the main cause – violation of logics of institutional design during reform of higher education, which led to multiple trans-plantational and imitational disfunctions of universities. Keywords: transplantation of institutes, convergence, imitation, standardization, hyper-bureaucratization, optimization, quantification, universities, the Bologna process.

RESUMEN:
Propósito: Sistematización de los efectos institucionales informales que acompañan los cambios institucionales generales durante la reforma del sistema de educación universitaria en Rusia y el desarrollo de recomendaciones para aumentar la eficacia institucional del sistema ruso de educación universitaria. Estructura / metodología / enfoques: la estructura del artículo se basa en la comparación de la dirección principal dirigida de la política de reformas educativas y los efectos institucionales complejos relacionados. La metodología incluye análisis institucionales descriptivos, evolutivos e informales, y el método de observación abierta sobre los cambios institucionales. Resultados: se determinan tres tipos principales de efectos institucionales informales relacionados con las reformas de la educación universitaria rusa: la imitación del instituto transplanted en lugar de la convergencia con el modelo institucional europeo, la hiperburocratización en lugar de la estandarización de los procesos educativos y la dominación de la evaluación cuantitativa de los cambios institucionales en lugar de la modernización de alta calidad y la optimización del sistema de educación superior. Originalidad: A diferencia de otros investigadores (A. Balatsky, M. Blyakher, V. Volchik y otros), que se centran en las causas secundarias de la ineficiencia institucional del sistema universitario de Rusia, este artículo determina la causa principal: violación de las lógicas de insti - Diseño institucional durante la reforma de la educación superior, que dio lugar a múltiples disfunciones trans-plantacionales y de imitación de las universidades. Palabras clave: transplante de institutos, convergencia, imitación, estandarización, hiperburocratización, optimización, cuantificación, universidades, el proceso de Bolonia.

1. Introduction
For more than a decade, Russian universities have been the object of constant, radical, and contradictory institutional reforms. The purpose of these reforms is to increase effectiveness of budget expenditures for higher education, and their main problem is ignoring the institutional effects of development of the university education system. The working hypothesis of this research consists in the presumption that despite the formal observation of all requirements of the Bologna process, modernization of the Russian system of university education is not finished due to low effectiveness of necessary institutes, while provision of real transition of Russia to the new educational system requires further development of corresponding institutional basis.

Structure of this article is built on comparison of purposes of Russian state policy in the sphere of higher education with complex institutional effects which emerge during its realization. The purpose of this paper is systematization of informal institutional effects that accompany formal institutional changes during the reform of the system of university education in Russia and development of recommendations for increase of institutional effectiveness of Russian system of university education.

2. Methodology
Modern scientific literature substantiates the expediency of distinguishing various level in the system of education (initial, medium, and higher), as well as establishment of connection between the system of university education and labor market and its functioning according to the general strategy of the country's economic development.

Theoretical issues, related to functioning and development of educational systems and practical aspects of reforming the
Conceptual foundations of institutional changes during reformation of socio-economic systems are set in the works of (Croucher and Woelert, 2016), (Eesley et al., 2016), (Zhang, 2016), (Popkova et al., 2015), (Chashchin et al., 2013), etc. By the example of several Russian universities, the authors analyze dynamics of changes of characteristics of educational establishments in 2015 as compared to 2003. The objects of research are Volgograd State University (VSU), St. Petersburg State University (SPbSU), and M.V. Lomonosov State University (MSU). Indicators for comparison are the following:

- **Educational activities** – share of number of students at master’s degree programs in the total number of students at bachelor’s, specialist’s, and master’s degree programs;
- **R&D activities** – number of citations of publications published over recent five years, indexed in informational and analytical systems of scientific citation Web of Science, Scopus, and Russian Index of Scientific Citation per 100 publications; number of publications of organization indexed in informational and analytical systems of scientific citation Web of Science, Scopus, and Russian Index of Scientific Citation per 100 publications, total volume of R&D and design & construction works, thousand RUB and share of revenues from R&D in total income of educational organization;
- **International activities** – share of the number of foreign students who finished the educational programs of bachelor’s, specialist’s, and master’s degree in total number of students;
- **Graduates employment** – share of graduates employed within a calendar year after the graduation year, in the total number of graduates of educational organization who studied by the main educational programs of higher education;
- **Personnel structure** – share of employees with doctor degree in the total number of employees.

Informational and analytical base for conduct of analysis included results of monitoring of activities of Russian universities, performed by the Ministry of Education and Science of the Russian Federation in 2015 and the results of sociological survey of 1,500 lecturers and undergraduates of Russian universities on their attitude towards the Bologna process in Russia, performed in 2009, as well as official materials of the Federal State Statistics Service of the Russian Federation for 2015.

### 3. Results

The results of comparative analysis of consequences of transition of selected Russian universities to a new system of university education are given in Table 1.

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<tbody>
<tr>
<td>share of students at master’s degree programs, %</td>
<td>7.34</td>
<td>10.65</td>
<td>15.67</td>
<td>21.24</td>
<td>6.14</td>
<td>9.10</td>
</tr>
<tr>
<td>number of citation of publications, indexed by:</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Web of Science</td>
<td>37.18</td>
<td>167.88</td>
<td>186.91</td>
<td>503.12</td>
<td>256.92</td>
<td>886.06</td>
</tr>
<tr>
<td>Scopus</td>
<td>28.16</td>
<td>155.53</td>
<td>178.13</td>
<td>528.95</td>
<td>324.81</td>
<td>955.05</td>
</tr>
<tr>
<td>RISC</td>
<td>135.87</td>
<td>851.38</td>
<td>301.29</td>
<td>866.40</td>
<td>237.64</td>
<td>820.03</td>
</tr>
<tr>
<td>number of publications of organization, indexed by:</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Web of Science</td>
<td>1.14</td>
<td>5.53</td>
<td>8.71</td>
<td>32.84</td>
<td>9.02</td>
<td>39.39</td>
</tr>
<tr>
<td>Scopus</td>
<td>2.61</td>
<td>9.95</td>
<td>9.18</td>
<td>39.09</td>
<td>12.63</td>
<td>51.18</td>
</tr>
<tr>
<td>RISC</td>
<td>48.63</td>
<td>232.38</td>
<td>15.36</td>
<td>99.62</td>
<td>12.52</td>
<td>86.93</td>
</tr>
<tr>
<td>total volume of R&amp;D, RUB million</td>
<td>12.54</td>
<td>45.88</td>
<td>539.61</td>
<td>1,134.58</td>
<td>1,265.78</td>
<td>5,657.09</td>
</tr>
<tr>
<td>share of revenues from R&amp;D in total revenues, %</td>
<td>4.97</td>
<td>5.01</td>
<td>11.78</td>
<td>12.19</td>
<td>22.63</td>
<td>24.30</td>
</tr>
<tr>
<td>share of the number of</td>
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</tbody>
</table>
It should be noted that the problem of bureaucracy in education is peculiar also for other counties of the world, including the Russian Federation. According to the Federal State Statistics Service (2015), in 2010, the number of administrative personnel grew by 58.2% - from 205,800 in 2009-2010 to 325,600 in 2014-2015. Staff in Russian universities in 2014-2015 reduced by 20.7% (to 299,700 people), as compared to 2009-2010, while the number of administrative personnel exceeded the number of teaching staff. Thus, the number of academic staff in Russian universities is significantly higher than the number of teaching staff. Hyperbureaucratization covers not only the whole teaching process but all aspects of university's activities. In many Russian universities, the number of administrative personnel exceeded the number of teaching staff. According to the Federal State Statistics Service (2015), the number of administrative personnel in 2014-2015 reduced by 45% as compared to 2003, in SPbSU – by 36%, MSU – by 48%. R&D activities also received an additional impulse for development due to transnationalization of Russian university education and creation of additional possibilities in the sphere of international publication activity. Thus, the number of citations of publications indexed in Web of Science grew by 351% in VolSU in 2015 as compared to 2003, in SPbSU – by 169%, MSU – by 345%; the number of citations of publications indexed in Scopus grew by 452% in VolSU in 2015, as compared to 2003, in SPbSU – by 197%, in MSU - by 245%; the number of citation of publications indexed in RISC grew by 527% in VolSU in 2015 as compared to 2003, in SPbSU – by 188%, in MSU – by 245%

The number of publications of organization indexed in Web of Science grew by 385% in VolSU in 2015 as compared to 2003, in SPbSU – by 277%, in MSU - by 336%; the number of citation of publications of organization indexed by Scopus grew by 281% in VolSU in 2015 as compared to 2003, in SPbSU – by 326%, in MSU – by 405%; the number of citation of publications of organization indexed by RISC grew by 377% in VolSU in 2015 as compared to 2003, in SPSU – by 649%, in MSU – by 594%. Total volume of R&D in VolSU grew by 266% in 2015, as compared to 2003, in SPbSU – by 110%, in MSU – by 347%, which is caused by hyper-inflation processes in Russian economy. The share of revenues from R&D in total revenues in VolSU grew by 1% in 2015, as compared to 2003, in SPbSU – by 3%, in MSU – by 7%.

International activities of Russian universities expanded due to processes of integration and globalization. In particular, the share of graduated foreign students in VolSU grew by 77% in 2015, as compared to 2003, in SPbSU – by 25%, in MSU – by 14%. The situation in the sphere of employment of graduates aggravated due to growth of unemployment rate in Russia. Thus, the share of employed graduates of VolSU reduced by 4% in 2015, as compared to 2003, in SPbSU – by 8%, in MSU – by 17%. The structure of personnel changed little. The share of scientific employees with doctor’s degree in VolSU grew by 4% in 2015, as compared to 2003, in SPbSU – by 5%, in MSU – by 1%.

Modern Russian scholars in the sphere of university education agree that modernization of this sphere is not yet finished. Thus, N.K. Abishev notes that the system of higher education does not fully satisfy the modern needs of Russian society and economy (Abishev et al., 2016). O.V. Leshukov states that effectiveness of regional systems of higher education could be characterized as low due to weak development of competitive environment in this sphere (Leshukov et al., 2016). S.I. Chernykh and V.I. Parshikov state that in order to finish modernization of Russian system of university education, it’s necessary to activate innovative process in it (Chernykh & Parshikov, 2016). J. Kallo and A. Semchenko are sure that it is necessary to use the main principles of the UNESCO and the OECD for provision of quality in transborder higher education of Russia (Kallo and Semchenko, 2016). A. Smolentseva emphasizes on the fact that the system of higher education in Russia is still at the stage of transition from post-Soviet to neo-liberal model, which hinders its development and hinders the globalization and integration in this sphere (Smolentseva, 2016).

Based on descriptive, evolutilinal, and causul institutional analysis of overt observation over institutional changes, we distinguished the following main informal institutional effects that accompany formal institutional changes in the course of the reform of the system of university education in modern Russia:

### 3.1. Firstly, it is convergence and imitation.

As studies at master’s program is usually conducted on a contract (paid) basis, universities’ management stimulates minimal or zero expulsion of master’s candidates because of their academic progress (similar situation is observed in bachelor’s programme), which leads to conservation of existing hybrid model of studying at master’s programme. Thus, according to the official data of the Federal State Statistics Service of the Russian Federation, 620,000 people started master’s programs in 2014-2015, and 635,000 people graduated. 572,000 people started bachelor’s programs, and 589,000 people graduated (Federal State Statistics Service, 2015). Due to functional transformation of transplanted European model, it is just a “shell” of specialist’s programme, artificially divided into two levels – at that, all institutional changes are only declared and imitated, but rejected in real life. It is confirmed by the results of sociological survey of 1,500 lecturers and undergraduates of Russian universities on their attitude towards the Bologna process, conducted in 2009 by the Information and analytical center. Thus, more than 80% of the respondents state that they are not satisfied by the results of modernization of the Russian system of university education (Polyakov & Savchuk, 2009).

### 3.2. Secondly, it is standardization and hyperbureaucratization.

It should be taken into account that average volume of educational load of lecturers has grown by 1.5-2 times since 2009 – at that, here we speak of the teaching load, the most labor-intensive load. Hyperbureaucratization covers not only the whole teaching process but all aspects of university’s activities. In many Russian universities, the number of administrative personnel exceeded the number of teaching staff. Thus, the number of academic staff in Russian universities in 2014-2015 reduced by 20.7% (to 299,700 people), as compared to 377,000 people in 2009-2010. At that, the number of administrative personnel grew by 58.2% - from 205,800 in 2009-2010 to 325,600 in 2014-2015 (Federal State Statistics Service, 2015). It should be noted that the problem of bureaucracy in education is peculiar also for other counties of the world, including the
developed Western states. Thus, J.A. Grissom and his colleagues note the high level of bureaucratisation of the educational system in the USA (Grissom et al., 2014), and N.C. Soguel and P. Jaccard – in European countries by the example of French-speaking Belgium, France, Hungary, and Portugal (Soguel and Jaccard, 2008). The scholars dwell on presence of serious bureaucratic problems in these countries, related to financing of the system of higher education, provision of educational services, and universities management.

At that, it should be noted that in bureaucracy is justified in developed countries, as it ensures emergence of such positive aspects as high control of quality of educational services, guarantee of certain level of knowledge on the issue of diplomas on higher education, justness and effectiveness in distribution of financial resources among universities, etc.

However, in Russia, bureaucracy in the educational system is a rather negative phenomenon, as it hinders development of this system. In particular, due to the high level of bureaucratization, Russian scholars face multiple difficulties during conduct of scientific research, participation in grants, preparation of левдований, участии в грантах, traineeship, etc. That is, bureaucracy is actually a barrier on the path of practical realization of basic principles of the Bologna process – growth of mobility of students and lecturers and increase of flexibility of educational system.

3.3. Thirdly, optimization and quantification.

According to Russian federal bureaucrats, increase of effectiveness of budget expenditures for higher education is related to optimization of the system of university education. Total expenses for education from consolidated budget of the Russian Federation in 2005-2014 grew by 3.99 times, for higher education - by 4.13 times. Over that period, share of expenses for higher education in GDP grew from 0.58 to 0.73%. At that, number of students in the system of university education reduced by 26.3%, but the share of higher education in total volume of budget assets aimed for education remained unchanged in 2005 and 2014, constituting 18.6%. Thus, budget financing of higher education increases gradually, though it lags behind indicators of countries which lead as to development of human capital.

The term “optimization”, which is repeated as a kind of mantra, means reduction of the network of state universities through their unification and liquidation of branches. Thus, in 2014-2015, the number of state universities reduced by 17.2% (down to 548 universities), as compared to 2009-2010, when there were 662 of them. At that, the total number of educational organizations reduced by 14.7% from 1,114 universities in 2009/2010 to 950 in 2014/2015.

4. Discussion

Thus, the working hypothesis was proved and it was shown that the determined informal institutional effects - convergence and imitation, standardization and hyperbureaucratization, optimization and quantification, which accompany formal institutional reforms of the Russian system of university education – hinder their success and reduce the effectiveness of this system's work.

The reasons for institutional ineffectiveness of Russian system of university education are multiple and are not realized fully by scientific society. They include the effect of path dependence and inadequacy of institutional matrix of Russia to institutes of Western type, ignoring the role of informal institutes and deficit of feedback with university society, chronic underfunding of the system of higher education, “obsession” of regulator, hyper-regulation, and drops in regulating policy.

We think that these causes are derivatives from the main cause – violation of logics of institutional design during reform of higher education in Russia. This is shown by irrationally short time period of performed institutional changes (as in case of implementation of FSES or creation of regional basic universities), stochastic changes of policy priorities (from deregulation until 2006 to hyper-regulation), permanent institutional innovations with no period for their adaptation (in a row of quickly changing “fetishes”, it is possible to distinguish SIE, basic chairs at enterprises, indicators of Russian index of scientific citation, publications in Scopus and Web of Science, interactive classes, network cooperation of universities, etc.), limitation of professional discussion and expertise of reform projects, and lack of analysis of experience of pilot projects.

Russian system of university education is characterized by multiple institutional anomalies – ineffective but sustainable norms, rules, and mechanisms of actors’ interaction. Such anomalies have appeared on evolutionary way, they are deeply embedded in everyday practice of university life. They are largely predetermined by “state's failures” – strategic "blindness", unclear laws, amorphic landmarks, and insufficient financing. These institutional anomalies are largely strengthened by “universities’ failures” as a result of their following the passive & adapting strategies, which led to their complex disfunctions and transformation into bureaucratic imitational institutes.

The following recommendations for increase of institutional effectiveness of the Russian system of university education are offered:

- stricter requirements to students – payment for educations shoul not be a guarantee of receipt of the diploma on higher education; this should require study of educational program and receipt of necessary competences;
- overcoming the bureaucracy in universities – the number of academic staff should be determined not by state norms and standards but actual needs of each univerty; the teaching load should be reduced, in order to ensure the required quality of education;
- stricter state requirements to universities' work – the volume of financing of universities should be determined by indicators of their work – quality of education, number of graduates, possibilities for graduates' employment, R&D activity of academic staff, etc.

The offered recommendations (instrumentarium) are aimed at elimination of the determined reasons of institutional ineffectiveness of the Russian system of university education (informal institutional effects), which leads to increase of the quality of university education and growth of effectiveness of functioning of university education system.

5. Conclusion

The results of the conducted comparative analysis of consequences of transition of the selected Russian universities to a new system of university education show that despite certain structural changes (transformation of educational activities, development of R&D and international activities), which reflect formal observation of requirements of reformation of the Russian system of university education within the Bologna process, the general picture (graduates employment, personnel mobility of students and lecturers and increase of flexibility of educational system.

The received results do not coincide with general conclusions of other works in the sphere of study of the process of transformation of the Russian system of higher education. In particular, most works by modern authors, among which it is possible to distinguish (Senashenko and Tkach, 2012), (Grigorev, 2009), emphasize on positive aspects of reformation of the system of university education in Russia and its external manifestations. The institutional analysis allowed viewing internal
Main sense of study of institutional effectiveness in Russian universities consists in determination of hidden contradictions of officially declared and factual changes in the process of reformation of educational system. This could shed light on universities in other countries of the world, as it allows expanding the system of monitoring of the results of reformation of the higher education system through including the qualitative indicators, such as general perception, understanding of the new educational system with its participants, level of interest, possibility for realization of the reform's direction, etc. This will allow evaluating the consequences of implementation of educational reforms and correcting them for achieving maximal effectiveness.

Theoretical value of the conducted research consists in development of the concept of university education and concept of institutional economy. Practical value of the results of this work consists in the possibility and expediency of using the Russian experience in the process of reformation of educational systems of other countries. A certain limitation of this research is emphasizing only the Russian system of higher education; its comparison to European educational system is very brief. The determined institutional effects, which accompany the process of modernization of the Russian system of university education, allowed finding the reasons for its ineffectiveness and developing corresponding recommendations for elimination of internal contradictions and finishing the processes of reformation – for which purpose the offered model should be used.

That's why a perspective direction for further research in this sphere is determination of similarities and differences in the results of reformation of the system of higher education of various countries within the Bologna process.

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