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ANALYSIS OF THE INSTITUTIONAL BUILDING AND SUSTAINABLE DEVELOPMENT OF HIGHER EDUCATION IN TRANSITION ECONOMIES*

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Abstract. The scientific discussion regarding the processes of the origin, formation, sustainable development, and institutional change of economic institutions in transition economies took place almost simultaneously with the transition of these economies from the rails of the administrative-command platform to market forms of economic activity. Since then, it has been actively, continuously and quite sharply raised and discussed in a plethora of scientific publications on the problems of theory and practice of social and economic development using the examples of several countries. Despite the background and history of studying these processes that go almost thirty year back, economic science has not developed a common understanding and generally accepted system of interpretation and interpretation of this relevant phenomenon. This paper provides an analysis of the institutional building and sustainable development of higher education in transition economies. We use the examples of former socialist countries to show how the reforms of higher education intended to increase its competitiveness and international prestige, often backfired and led to institutional issues.

Keywords: transition economies; institutions; higher education; regional development; sustainability; universities

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Additional disciplines: institutional economics; structural change; economic activity

1. Introduction

The strategies that universities can use to achieve the improvements in their performance and standings in the international rankings are not always readily apparent, and there is a reactive possibility of responding based on opinions rather than evidence (O'Neill and Palmer, 2004). With regard to the above, it might be informative to see how the educational quality surveys at subjects' level could affect national performance indicators and, in

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particular, organizational issues that affect the interpretation and handling of such information in order to provide meaningful information to curricula and educational improvements. Differences in performance indicators between faculty care, lecturers' training, engineering and business are often discussed, and the impact on management is often apparent and might differ from region to region, or from country to country (Abbott-Chapman, 2011; Fackler and Malmberg, 2016; Hiebert and Stigler, 2017; Girdzijauskaitė et al., 2019).

The main objective of sustainable development of higher education is "to integrate the principles, values and practices of sustainable development into all aspects of education and learning" (UNESCO, 2005). As stated in the UNESCO initiative, education should promote behavioral change that can create "a more sustainable future in terms of environmental integrity, economic viability and a just society for present and future generations" (Ibid.).

Furthermore, universities and research institutions worldwide are increasingly addressing the issue of gender inequality and affordability of studies for students from all social backgrounds; nevertheless they are important for innovative regional development (see, e.g., Niño-Amézquita et al., 2017; Schouten, 2019).

However, one has to recognize that efforts to move in this direction are often isolated and difficult to compare and reconcile. Another major challenges universities and research institutions have to face is the inequality in earnings (Jandová, 2012), the rise of the precariat as a social class due to the current trends that include sharing economy, gig economy and technologization of work (Volchik et al., 2018), or the issues related to international migration and migrants in general (see e.g. Ambrosetti et al., 2014; Čajka et al., 2014).

In addition to maintaining the measurement and disclosure of sustainability information, including the academic category of the GRI report (an independent international organization that became a pioneer in sustainability reporting), that allows for the assessment of the actual operating results of activities and their contribution to sustainability. By adopting indicators in the academic dimension, academic managers can compare the development of their respective institutions' sustainable performance and compare their results with other institutions. The inclusion of the academic category in the context of the GRI Sustainability Report also means that the three-dimensional sustainability perspective needs to be broadened across all academic dimensions (Elkington and Lawrence, 2012). The academic category aims to measure and disclose the impact of teaching, research and advisory activities on society. The financial subcategory includes financial aspects directly related to teaching, research and extension activities. The subcategory "Social and Environmental Responsibility" includes issues related to the education of students and their development of social and environmental skills. Institutional accreditation agencies provide resources and tools to assess and improve the quality of education. An institution's assessments by one of the accreditation agencies are based on criteria that include requirements for institutional planning, faculty, students, research, curriculum, etc., and are provided here as a resource. In addition, many of these agencies sponsor regional conferences on evaluation issues and other relevant issues of higher education.

The fact that the education component is more difficult to assess than the training component has led educational institutions and universities worldwide to adapt industrial quality assurance models. The application of industrial quality models in education facilitates the training component in terms of competencies but may affect the training component. Evaluating students by measuring their ability to perform specific tasks actually encourages the training of technicians. Another approach to assessing quality is to ask people whether they have benefited from the college or the university. The College Results Instrument (CRI), developed by the National Center for Postsecondary Improvement Institute (NCPI), pursues a different and intriguing approach. Among other questions, alumni will be presented ten different scenarios five years after graduation. The instrument's design helps potential students make better-informed choices among the various colleges and universities they can apply for.

Moreover, institutional building focused on the reforms of higher education institutions and universities requires mutual influence of multiple factors, including the state, interest groups with different interests, various

stakeholders and policymakers. Adapting the new educational institutions to the new economic system typically takes a long time and efforts, and cannot be achieved overnight.

2. Government policy for managing science and education

Science and technology policy is one of the public policies that promote adequate funding to advance scientific and technological research and education, to examine the impact of science and technology on citizens and, if necessary, to lay down rules (Bozeman, 2000). Since many political issues have a scientific component, most industrialized countries have specialized agencies, ministries or offices dealing with science and technology policies. In addition, some countries (like, for example, in the United States), this compilation contains references to the science and technology policies of other nations and groups of nations.

In many countries, local educational agencies under the central administration have various direct and indirect responsibilities in the education field. In many cases, this involvement is linked to the financing of specific programs related to their agency mandates. For example, the National Science Foundation (NSF) in the United States sponsors numerous research projects at numerous universities, colleges and research institutes across the country (Howard and Laird, 2013).

As public management and public administration are closely interlinked, many universities incorporate public management studies into their master programs in public administration (Ritz et al., 2016). Public administration concepts taught in such programs (eg management of public human resources or public finance management) are often integrated into the public administration curriculum. Upon graduation, trained public administrators may join the ranks of political scientists, public administrators, city administrators and similar professionals who have an impact on public policy in modern societies and institutional reforms that are so needed and required.

Management of science and education through institutional reforms appears to be very important for the socio-economic development of the regions; however it should be done with care and premeditation. In the following section of our paper, we perform an in-depth analysis of these issues and provide some results and policy implications for those who would wish to undertake such reforms.

3. Universities and higher education institutions in transition economies

Transition to market economies in the socialist countries represented a long and institutionally complex process (see, e.g., Kolodko, 1999; Abrahám et al., 2015b; or Jiroudková et al., 2015). Driven by policies and interventions, compensation in the socialist era covered many areas of life, be it income equality or access to public services such as health and education (Hanley and McKeever, 1997). It still remains a problem in most of the transition economies (Abrahám et al., 2015a; Čábelková et al., 2015). The general literacy policy, implemented through the provision of free and compulsory education, has led to a significant increase in educational attainment in the Soviet Union and its satellite states. Equalization also promoted the mobility of educational institutions in the socialist countries, whose effectiveness varied from country to country. Part of the literature affirms the goals of the socialist system to balance human capital and finds high levels of educational and social mobility in the socialist era. Titma and Saar (1995) conclude that in the Soviet Union in the last few years of their existence a real equalization of educational opportunities has been achieved, but that there were regional differences in the availability of secondary schools and universities.

In the first years of transition, public spending on social assistance and public schools declined in most countries. In Kyrgyzstan, children with lower-social status are already disadvantaged in Kyrgyzstan, according to Tiwari and Mitra (2012). The liberalization of the education system in a transitional context can promote the mobility of education in both directions. Losses in income may have forced low-income families to reduce investment in the

education of their children, especially at the tertiary level (World Bank, 2000). Compared with children with better-educated parents, a higher proportion of young people with poorer backgrounds opt for earlier entry into the labor market as the standard of living deteriorates and the economic difficulties are associated with the transition (see e.g. Kalyugina et al., 2015). As a lower level of education is usually associated with a higher level of poverty, the polarization of incomes in transition countries may lead to a growing educational gap across regions and countries.

In the Czech Republic, another former socialist economy, about 12% of the population in the age group 25-64 has higher education (for the European Union countries) this figure was 21% and for OECD countries – about 23%. According to the Czech Ministry for Education, Youth and Sport, there are three types of higher education in the Czech Republic: public, departmental and private. Public and private education is regulated by the Ministry of Education, Youth and Sports of the Czech Republic (Ministerstvo školství, mládeže a tělovýchovy České republiky). Departmental universities (the Police Academy of the Czech Republic and the Defense University in Brno) are supervised by the Ministry of Defense and the Czech Ministry of Foreign Affairs. There are 32 private universities, 26 public universities, 2 state universities (Police Academy and Defence University), and about 6-8 foreign (European and non-European) public and private universities (MSMT, 2019).

In 2009, a scandal occurred at the Law Faculty of Plzen University in Pilsen, Czech Republic. It turned out that about 400 people (politicians, officials and police officers) wrote off their diplomas or "managed" to study in a Bachelor or Master program in 2-3 months. After that, the Minister of Education ordered an audit of all universities (paying particular attention to private universities). The audit showed problems: poor quality (especially at private universities), "branches" in the regions, trade in diplomas, plagiarism, "flying" associate professors and professors, etc. Following that, in 2010, the Accreditation Commission of the Ministry of Education announced the policy of "death to private universities": within 2-3 years, the number of private universities had to be reduced to 5-10 pursuing quality, not quantity. Nevertheless, these drastic institutional reforms never materialised, and the balance of universities still remains the same.

Soviet education has always been standing high in the international academic rankings and excelled in the export of educational services. After the collapse of the USSR, Soviet and then Russian universities had to regain our international competitiveness in research, technology and higher education. The goal was to demonstrate significant (advanced) educational achievement that meets the latest trends in education, science and production in Europe and the world. In order to achieve these objectives, reforms of higher educations were introduced. This led to many institutional changes and traps that resulted in adverse effects for the quality of higher education (see, e.g., Volchik and Maslyukova 2019; 2019).

The Russian government is introducing a number of institutional reforms leading to the reforms of higher education in the country aimed at improving its global competitiveness, for example, sending more students abroad to study at elite universities, or requiring all lecturers and professors to publish in internationally recognized journals (e.g. those indexed in databases such as Scopus or Web of Science) (Volchik and Maslyukova, 2018; Volchik, 2018). Russia is also taking steps to revise its own higher education sector due to its poor performance in the global university ranking. Following an independent review of the universities, 15 were selected to receive special grants to improve compliance with the ranking criteria.

Nevertheless, the reforms of higher education in Russia is often accompanied by the mere import of institutions and organizational mechanisms in the context of the socio-economic development. A number of scientific studies are devoted to the problem of import of economic institutions into the Russian economy. For example, Malgin believes that "*developing countries mainly resort to the import of institutions,*" but despite this, "*at the turn of the century, Russia chose this path of building its own institutional environment*" despite a number of imperfections inherent in import, such as:

1. *“independence from the previous development path;*
2. *sharpness and instantaneous transformation;*
3. *possibility of a directed influence on the characteristics of imported institutions;*
4. *social riskiness of import”* (see Malgin, 2007).

However, the process of import was *“carried out without a proper systematic analysis of the benefits and costs of introducing new institutions, as well as in the absence of clear criteria for selecting institutions for import”* which *“often led to a decrease in their effectiveness or even rejection”* (Malgin, 2007).

4. Merger of universities: interim results from the Rostov region

One can see the grim results of the rapid institutional changes in some real-life examples. A good example might be the merger of universities from the Rostov region in the south of Russia.

Table 1. Dynamics of the number of universities and students in Russia and the Rostov region

	Total universities / number of students (thousand people)		State and municipal universities / number of students (thousand people)		Non-state universities / number of students (thousand people)	
Russian Federation in total						
1980/81	494	3 045,7	494	3 045,7	-	-
1990/91	514	2 824,5	514	2 824,5	-	-
1996/96	762	2 790,7	569	2 655,2	193	135,5
2000/01	965	4 741,4	607	4 270,8	358	470,6
2005/06	1 068	7 064,6	655	5 985,3	413	1 079,3
2010/11	1 115	7 049,8	653	5 848,7	462	1 201,1
2015/16	896	4 766,5	530	4 061,4	366	705,1
2016/17	818	4 399,5	502	3 873,8	316	525,7
2017/18	766	4 245,9	500	3 823,1	266	422,8
Rostov region						
1980/81		107,3		107,3	-	-
1990/91	17	89,6	17	89,6	-	-
1995/96	24	89,7	19	86,9	5	2,8
2000/01	31	150,4	18	139,3	13	11,1
2005/06	31	213,7	19	196,8	12	16,9
2010/11	25	210,0	14	188,6	11	21,4
2015/16	18	149,2	9	139,0	9	10,2
2016/17	14	138,6	8	131,6	6	7,0
2017/18	12	134,5	8	128,6	4	6,0

Source: Rosstat (2018)

During the course of our study of this particular case which started at the beginning of 2017, the number of universities in the Rostov region remained at the same level, but non-state universities decreased, and now there are only four in the region. There is a university with federal status in the region – the Southern Federal University, as well as a basic university of the region, formed on the basis of the Don State Technical University. The total number of students in the region decreased by 10%, which generally corresponds to federal trends, and reached the level of 134.5 thousand people, of which only 6 thousand people - students of private universities (for more details, the dynamics are presented in Table 1).

The number of representatives of the faculty also does not stand still. As of the 2015/16 academic year, a total of 8,991 people worked in the field of higher education, and our survey showed that teachers expect a further reduction in the number of people employed in the industry, and their expectations were met. Already in the academic year 2017/18, the number of faculty members dropped to 7,887. There are no official statistics for 2018/19, but one can say with confidence that this indicator will be even lower, which does not cause much optimism among industry workers regarding their career and its successful development.

As noted earlier, the field of higher education and science is replete with institutional traps, in particular the “dissertation trap” that was previously identified, studied in detail and described in the literature (see Kalimullin, 2005; Balatsky, 2006; or Zhuk, 2011). Over the past time, the situation with this phenomenon has only worsened. By order of the Government of the Russian Federation No. 1792-r dated by 08.23.2019, Southern Federal University was included in the list of organizations that independently award academic degrees of candidates and Doctor of Sciences from September 1, 2018. At the time of preparation of this article, Order of the Ministry of Education and Science of the Russian Federation No. 806/nk On August 23, 2019, all dissertation councils for the award of candidate and doctoral degrees were closed (except for the combined councils created on the basis of several institutions). At the same time, a network of councils designed to work according to the new rules has not yet been created (an exception is one council in one speciality 01.04.15 - physics and technology of nanostructures, atomic and molecular physics (in physical and mathematical sciences)). As a result, graduates of the 2019 graduate school the vast majority received a situation in which they lost the opportunity to defend themselves in the old councils and did not get this opportunity in the new ones.

A growing number of applicants for master's studies in areas of training do not correspond to the direction of training in their own bachelor's diploma. There are no official industry statistics on this issue, but according to their own feelings and surveys in the classrooms, graduates increasingly perceive the master's program as an opportunity to get a second education, distorting the essence of master's education as deepening their specialization and getting a higher-level education. As a result, there are people in the audience who do not understand the essence of what is happening in it, they do not really receive a new education, they do not deepen the old one.

The unchanged government policy for managing education and science, based on the methods of “new public sector management” (NPM), leads to an ever-increasing influence of quantitative indicators in assessing the activities of higher education institutions (see, e.g., Tolofari, 2005). More and more publications are required, and it is no longer “desirable” but “required” in various international citation databases, an increasing number of foreign students (as a factor ensuring a higher place in various international ratings), the burden on teachers is increasing due to calculation of rates Teaching staff depending on the contingent of students. In a similar targeting to quantitative parameters, qualitative ones relentlessly move to the background.

Moreover, it becomes evident that quantitative targeting applied to such complex issue and the institutional reforms of higher education, in the end, does not bring the desired result. One of such examples is the so-called “Project to increase the competitiveness of leading Russian universities among the world's leading scientific and educational centers” (known as Project 5-100) which aimed at bringing at least 5 Russian universities among the top 100 universities in the world according to the international ratings. The project was designed for seven years and launched in May 2013, unfortunately has not yet reached its goals and desired results.

5. Institutional building and sustainable modern universities

In general, one would probably agree with us that institutional building for creating a sustainable developing modern university represents a cumbersome and systematic work. This can be shown on many examples and in the debates of educational experts and scientists from many transition economies. For example, one of the

ideological inspirers and initiator of many areas of reforming the sphere of education and science in Russia, the permanent rector of the Higher School of Economics in Moscow, Mr. Kuzminov, published a policy article regarding the format of successful and effective institution-building, in which special attention is paid to the prerequisites for institution-building, which ensure the creation of an effective and sustainable institutional environment (Kuzminov et al., 2005).

In particular, successful institution building requires a long time and special efforts. In other words, it takes a long time for market agents to get used to and successfully implement the institution, as well as to adapt to coordination in accordance with its rules. That is, the annual, or even with a break of two or more years, the introduction of new federal state educational standards leads to chaos. We have not yet managed to understand and adapt the previous ones, as the regulator emits the next ones.

It seems that special efforts are required in order for most market agents to adopt rules of conduct and begin to coordinate in accordance with the newly created institution. It is clear that information support is needed, in other words, clarification to market agents that coordination in accordance with the newly formed institution is really beneficial for them. Indeed, not in reports and words.

The effective implementation of the institute is helped by regular monitoring of changes to which, unfortunately, no one is capable of reaching in the vast majority of cases. Indeed, regular monitoring of the introduced changes in the sphere of higher education would show a decrease in the quality of education, an annual reduction in the number of students and teachers, and an increasing number of publications in “junk” or “predatory” journals for the sake of distorted goals (Volchik, 2018; Volchik and Maslyukova, 2018).

In order to achieve maximum efficiency in the functioning of newly introduced institutions, there might be the need for continuous training of actors, and the idea of laissez-faire reform might be interpreted as a harmful utopia. Some argue that it is not enough to adopt good laws, but it is important to ensure their survival in the new institutional environment. It is essential not to allow negative precedents, the authors write; however, they do not propose such negative examples as an example. Can we consider the reduction in the number of students and teachers a negative precedent or is this a positive trend? Positive precedents allow building trust in new institutions. It is difficult to disagree with this, but what can we consider as positive precedents? And what to do here if the actors do not see anything positive in the ongoing institutional changes?

Overall, it seems necessary to build a balance of power in relation to the new institute; without the support of the new institute by the actors, its development will fail. It is difficult to argue with this statement, but in real life institutional changes are initiated and carried out without the support of the actors of the reforming industry. As Kuzminov et al. (2005) state, necessity might then seek the complementarity of reforms. It would seem like an extremely obvious statement. However, in practice, reforms aimed at improving the quality of scientific research motivate to produce a lot of articles without regard to their quality, reforms of the educational process allow careless students to be registered for years without the possibility of being expelled for failure, and to enrol foreign students without any entrance tests just to increase them for the total number of students.

In general, one needs to take into account the adaptation time of the new institution, which can be a rather lengthy process. Moreover, one would agree that there are no free reforms – everything has its price and reforming higher education with all its institutes can become quite costly. However, lecturers and professors in transition countries who are forced to annually rewrite piles of papers in pursuance of new directives from education managers do not believe that their work is really worth some significant means.

All in all, we think that there should be a project approach to implementing reforms. In other words, reforms should not contradict each other. This aspect we would like to mention in the light of the rejection of the cathedral

structure of our university, and then to its return. Such examples can still be found in fairly large numbers and are indeed very disturbing.

Another issue is the public evaluation of the new institute that has been adapted. It might take some time to sink in; thence its assessment needs to be done after a considerable amount of time. Thence, evaluation of the institutional reforms of higher educational institutions and universities in the transition economies cannot be achieved within a year or two after their implementation. In our opinion, it should be conducted using reasonable methods and after a reasonable amount of time when all the consequences and implications of the institutional reforms are reached and would be easy to measure.

Conclusions

Summing up and summarizing all approaches to the interpretation of institutional changes, one can conclude that anyway, in the modern world, any changes in institutions occur under the mutual influence of all subjects of this process: the state, individuals, special groups with different interests. Furthermore, this process takes quite a long time to root and adapt institutions in the new economic system and implies conscious activity to adjust them and increase the efficiency of functioning. It is this approach that we mean by meaningful, purposeful institutional construction.

This can be very clearly seen in the example of structural and deep institutional reforms of the universities and higher educational institutions in the transition economies. Governments and stakeholders attempted many efforts that were envisaged to improve the quality of education, help to rise in various academic rankings and secure the leading positions in the global educational ratings. However, many of these reforms proved to be controversial and misleading with the similar aspect that can be noticed in almost all transition economies, namely the neglect of the fact that such profound institutional changes require long periods and premeditated approaches and policies.

Overall, we would like to note that if in the realities of domestic institutional construction, the authors of the reforms themselves adhered to their own philosophy, perhaps institutions in the transition economies would demonstrate higher quality and demand from the actors they coordinate.

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