

Political economy assessment of the educational system promotion in Russia in the conditions of digital economy formation

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ORIGINAL ARTICLE

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Abstract. The article reviews a political-economic analysis of the growing dynamics of the education system in Russia, using the example of higher education in the creative solutions of the digital economy. The author examines the economics of education from the political economy view. The evolution of targets in higher education is presented. When comparing definitions of higher education targets, they provide two mutually related, but competing functions of higher school: the role of higher education in the teaching workforce for all economic sectors and the general intellectual growing of a creative, socialized personality. The nature of economic interests in the higher education system is determined. Market economy and democratic society principles imply models of competitive harmony in economic interests of higher education. The educational product is analyzed from the principle of diglossia as a public and private benefit. In the near future, a combination of fee and free higher education in Russia is inevitable. However, the share of fee-paying educational services of universities will dramatically increase. The analysis confirms academic steps to create a scientific product in the digital economy. Competition of universities in the market of scientific products for receiving profitable contracts with firms and corporations stimulates universities to increase their rankings. The conclusion shows the inconsistency of the dynamics of the development of the education system of Russia in the digital economy. An important contradiction is in the prevalence of political decisions free from long-term socio-economic consequences.

Keywords: digital economy; economic interests in higher education system; education economics; higher school; political economy; Russian education system

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Introduction

In economic research of education in general and higher education, in particular, we note [1] several related issues and challenging problems. One of them covers everything that represents the economics of education as one of the economies' sectors. These include issues of financing, taxation, economic costs of the educational process, organization of wages, demand for educational services of different levels and quality, the functioning of the market for implied services, the role of the state in its regulation, schemes for managing educational institutions and appropriate legal support. It is this range of questions that constitutes the content of many monographs and textbooks [2, 3]. And the subject of the economics of education is usually determined in such a way that issues are limited by this approach: «The subject of the economics of education is the driving laws of material, financial, labor resources led to the field of education or used in it to achieve socially and personally determined goals of its functioning and development» [4, p.382].

This definition of the subject of the economics of education clearly reflects the prevailing view on research concentration around the «driving laws of material, financial, labor resources», and «socially and personally determined goals of functioning and development» is something external, exogenous with respect

to the movement of resources in education [5].

Moreover, in the literature there are other definitions of the subject. So A. Maloletko [6, p. 18] notes: «In the economics of the system of higher and postgraduate professional education we see the overall material, technical, financial, labor resources and potential in various organizations».

Despite the evidence in the importance and productivity of studying the mechanisms of economic resources movement in the field of education, it is impossible to ignore other challenges in the economics of education.

Methods

The title of this paper associates with the necessity to analyze statistical indicators characterizing changes in the quality of educational organizations for some period, the number of students and teachers, their scholarships and salaries, the ratio of organizational and legal forms, etc. However, statistical analysis is not the subject of this work. The authors intend to focus on political economy analysis of the education system promotion. We talk about the role and functioning of the education system in general, and higher education in particular, in the socio-economic tenor of the country, the growth of human capital and intellectual potential in the conditions of digital economy. About the special properties of the product of production in the field of education as a public and private good, about a complex system of economic relations in which a higher educational institution operates. We study contradictions, compromises, harmony of economic interests, manifested in higher education, on the ratio of goals in the long- and short-term runs. The significance of a strategic approach to planning the development of higher education and the management of this elaboration – all that goes beyond the sector economy, and which may be called the political economy of higher education [7]. Within the framework of the study, we use methods of analysis, synthesis, modeling, a method of scientific abstraction, a systematic approach to analysis, analogies, comparisons, categorizations.

Results

The framework of the article uncovers any political economic issues of higher education, therefore, we will single out only a few, as we see it, especially relevant and deserving priority issues.

1. The objectives of higher education in the formation of the digital economy

The definition of targets is a crucial starting point in shaping the concepts of higher education development. Few people, apart from universities, are able to foresee socio-economic changes, and in fact their mission includes both adaptation to these changes (for example, the desire of technical universities to develop humanitarian areas with appropriate connivance of the Ministry, which has administrative rent from this process), and foreseeing the impact on these changes [8, 9].

The political and economic assessment of the changes in the field of higher education in the conditions of the digital economy suggests that the government has formed an opinion about higher education as a subsidiary. Its existence is justified only from the point that it contributes to the functioning of labor markets. Universities must shape the skills required by potential employers. The effectiveness of universities is estimated by how quickly graduates find a job. Hence the conclusion-recommendation to subsidize the employment of qualified holders of diplomas, and not to spend money on training low-quality specialists [10].

National concepts of higher education vary across countries. To a large extent, such differences are associated with different participation of the state budget in financing higher education [11-13]. Different participation is determined by the targets for higher education results.

In our previous published papers [14], we identify four main approaches to the goal setting of higher education.

The first is the orientation of the higher educational institution to the training of highly qualified professional personnel with a clearly marked specialization for further work in battle or another sector of the economy in a particular specialty. With such a definition of the goals of higher education, attention is focused on special disciplines and professional knowledge and experience.

However, as the characteristics of a post-industrial society matured and the digital economy had a go,

the lifelong or almost lifelong attachment of a person to a particular profession conflicted with new socio-economic conditions. First, the increasing variability of the structure of production and economic relations is increasingly raising the role of post-professional education, which allows a person to change the specialization and nature of his activities. Second, narrow professional specialization is fraught with the danger of limiting the horizons of the socio-economic world outlook. And it is not by chance that in recent years the expansion of humanity education in highly specialized higher educational institutions, which train, for example, doctors, engineers, and geologists, has an urgent demand. Third, a narrow professional specialization limits freedom of choice, increases a person's dependence on the state of the industry and on the behavior of the employer, that is, limits the freedom of the individual as a whole.

The second approach to defining the goals of higher education and to developing its concept is the opposite of the first. Targets are shifted from specific training to the development of human intellectual, creative potentialities. It is this that makes it relatively easy to move from one type of activity to another, to acquire new information and new special professional knowledge and skills. This approach has become prevalent in the top-rated universities in the world. With the described approach to defining the goals of higher education and developing its concept, the tasks of intellectualization, enhancement of the creative potential of a significant part of the country's population and the formation of its intellectual elite are much more successful.

The third approach: with a view to higher education, the problems of young people's differentiation in terms of intellectual development coefficient and the ability to assimilate and use increasingly complex information come to the fore. The method involves a series of exams, during which an examination threshold is found for the subject.

The fourth approach is the opposite of the third: no exams, diplomas, or degrees are needed. The student is studying at the university disciplines of his own choice. Whether useful or not for his future career, that is the problem of his personal choice and understanding of his capabilities. With all the seeming exoticism of such target-setting, there are already quite a few universities in the world that build the learning process on such principles.

2. Economic interests in higher education

The market exists not only for graduates, but also for other products of higher education, including professional opportunities in the universities themselves.

The situation in the education in Russia is characterized by the continuous reorganization of the Ministry of Education and Science. An analysis of this situation using the method known as the Saaty AHP suggests that the government wants to retain the main (if not decisive) role in determining the parameters of functioning of higher education. This method, used in the process of creating an analytical hierarchy and developed by Thomas L. Saaty [15], is a planning and decision-making method in the process of multi-criteria decision (there is an evidence using this method in the USA in 1985-2000). The purpose of the method is to set, through a series of steps, a hierarchy of scenarios that should or can lead to the large-scale of a specific goal. In a scenario involving evaluation processes, the influence or significance of individual parties and sub-goals is also measured. The work ends with the construction of a script inscribed in a hierarchical framework with a dimension with its own vector.

The impulse of transformations coming from the government is highly-likely to correlate with the influence of market mechanisms (current economic interest) than with concern about the quality of education (long-term economic interest due to the fact that education has such a characteristic as hereditarily).

In a number of works, researchers note that the mechanism for the realization of national economic interests is complex and multi-dimensional. The state calls to advocate their interest in determining long-term and short-term state interests, including concepts and programs for the development of higher education [16, 17].

State interests are realized through power and administrative structures, through the activities of people working in these structures, and civil servants. In moving along these steps, national economic interests are subject to deformations to a greater or lesser extent.

First, state interests are far from matching with national ones. This circumstance is analyzed in detail by the theory of public choice (D. Buchanan) [18], which is famous as the new political economy.

In our opinion, a broader and more precise definition of the subject of new political economy is presented in publications in the pages of the journals «Problems of New Political Economy» and «Issues of Political Economy», as well as in [19].

Secondly, departmental interests, competitive opposition of various departments arise within the management structures. Under certain conditions, departmental interests are able to replace and push into the background national interests. Thirdly, in the activities of individuals of public servants, national and state interests are combined with personal economic and personnel interests. And the point here is not only in behavior oriented towards the granting of status rents, but also in the fact that the effect of the realization of long-term economic interests often turns out to be beyond the time limits of the terms of office and responsibility of individuals, civil servants. State interests do not always correspond with the economic interests of universities and with the interests of professors and teachers.

The choice of school and specialty of higher education is poorly associated with the real needs of the economy. Despite, for example, the signals of the market about the overproduction of economists and lawyers, these specializations occupy a priority place in the applicants' choice. And after graduating from university, graduates still find jobs that are acceptable to themselves, although they do not quite coincide with the specialization obtained (another argument in favor of the second approach discussed above to the definition of goals and the concept of higher education) [20].

Another issue is burning: the uneven distribution of the intellectual, educational and informational potential throughout the country. Schools and hospitals, cultural institutions in remote places and especially in rural areas do not receive an influx of young teachers, doctors, cultural workers. The temptation of a simple solution is great: the activation of an administrative resource. They are implementing the proposal to solve the problem by reviving targeted admission to higher educational institutions and distributing graduates. But it is necessary to take into account social costs. They consist, firstly, in restricting the democratic right of any citizen to receive higher education and to follow up on their own, free choice. Secondly, work in the direction will become a predominantly for young people from poor families, which will reinforce the stratification of the population, socio-economic inequality.

It is necessary to recognize the weakness of institutionalization of competition of universities for obtaining limits on budget financing and for attracting applicants on a budgetary and extrabudgetary basis. Determining the number of students admitted to a university with budget funding, without sufficient and publicly known criteria in competition, translates the solution of the problem into the plane of the relationship between negotiating power and personal informal relationships with employees of the Ministry of Education and Science of the Russian Federation. Institutionalization of inter-university competition and the development of a system of objective criteria in the competition of universities for admission numbers financed from the budget not only makes it possible to limit the space for decisions of an informal and shadow nature, but also contributes to improving the quality of work of universities stimulated by competitive conditions [21].

3. Educational product as a public and private benefit

Public goods, as well known, have two characteristic features: they are noncompetitive and non-exclusive. These characteristics apply to university educational products with very significant limitations. Noncompetitiveness means zero marginal cost. If adding the student audience with each additional student did not increase university costs, there would be a non-competitiveness. In reality, the increase in the number of students for each additional unit is still associated with an increase in a certain proportion of costs. This is the burden on the teacher in all forms of individual communication with students, the area of audiences, equipment with computers, other teaching and material means, etc. So the concept of non-competitiveness is only very limited to the educational product of the university [21].

Equally limited is another characteristic of the public good in relation to the educational product of the university – non-exclusivity. A product is non-exclusive, if no one can be excluded from the scope of its consumption. If anyone had free access to a university education, the non-exclusivity of this product

would indeed be asserted. In reality, not all young people can become students: admission to budget places is limited by funding, there are applicants' contests, access to higher education for a fee. So the concept of non-exclusivity in relation to the system of higher education remains only within the limits of equality of opportunities and rights in competition for obtaining educational products of universities.

Thus, an educational product, having very limited properties of a public good, is mainly a private good. The social significance of higher education is not determined by the properties of the public good, but by exceptionally large positive externalities. Higher education, firstly, meets the needs of firms, the economy and culture of the country as a whole in highly qualified personnel, ensures the growth of intellectual potential, and secondly, the formation of a socially active, responsible population, high-quality society, and civil society. That is, the most fundamental national economic interests are served and realized. Yes, and within the micro-social neighborhood, communication with highly educated people is comfortable for others.

The prevalence of the properties of private good argues the fee for higher education. In most economically developed countries, it is [22-25]. However, this problem is far from clear, especially in the conditions of modern Russia. First, the payment for higher education is objectively perceived by society as a departure from the usual social achievement, as a deterioration of living conditions. Secondly, the payment of higher education can limit access to it by young people from low-income families, who constitute a very large part of the population so far. Consequently, the conditions for social and economic inequality are reproduced, it even increases. In detail, this thesis is developed in the works of N.G. Yakovleva [26]. Thirdly, as it is quite clearly stated in economic theory, market mechanisms themselves, without additional regulatory influence from the state, can not sufficiently direct resources to the production of goods with large positive externalities, including in the higher education.

Funding higher education will be partly earned out by entrepreneurs and charitable foundations. This perspective is closely linked with the trend of increasing autonomy of universities and the conditions for a significant increase in the salaries of professors and teachers, and the improvement of teaching and material support.

4. Scientific product of universities in the frame of digital economy

Together with the prospects and trends discussed above, new trends are also emerging in Russia. It is about turning universities into scientific and information centers with their research laboratories, not only enriching science with new discoveries, but also providing efficient, new and improved technologies to the economy. This aspect of university activities requires special attention. In Russia, for decades, the division of scientific work has been. Fundamental theoretical research was carried out by academic research institutes. Applied scientific research was carried out mainly by industry research institutes (research institutes and design bureaus). And universities and colleges were mainly engaged in the training of highly qualified personnel, the translation of scientific knowledge to the student audience. And although in recent years, attention to universities' own research activities has increased, it still remains in the background as compared with the educational process, which is still to a small extent connected with the scientific research of the professors and students themselves.

World practice is moving in a different direction. Universities have become the main medium of scientific and technological progress. Moreover, in the concept of a post-industrial society there are three stages of development. And if in an agrarian society the church and the army were a specific form of social organization, and corporations in the industrial society, in a postindustrial society this role is assigned to universities. Universities are turning into centers of scientific, informational, economic, and cultural life of the country that are system-organizing society.

At the same time, the content of the scientific product of universities has fundamentally changed. The distinction between fundamental and applied research in various institutes remains in the past. In most cases, the university is directly focused on the needs of the economy in the field of technology. Applied science, drawing on ideas from fundamental research, has become the main field for the realization of the research potential of universities. Direct relations with corporations, the sale of the scientific product of the university, the fulfillment of orders for the development of new technologies, the implementation of joint scientific and

technical programs and projects with the business – all this causes fundamental changes in the sources of income of universities, in financing their activities.

These processes fundamentally change the methodology of higher education. The participation of students in research and development demanded by economics and business, with their focus on significant applied results, contributes to the formation of highly qualified specialists ready for effective practical work. Often, since the student time, cooperation with certain firms has been established.

Discussion

A political-economic analysis of the dynamics of the promotion of the education system of Russia on the example of higher education in the conditions of the digital economy gives the interpretation of the content of the economy of higher education from the position of political economy. The tendency of universities to turn into system-organizing centers of economic and social life is very important for determining the place and role of a university in each given region. This interesting and actual problem is already to a large extent considered in our publications [1]. Universities are socio-economic institutions (in terms of institutionalism) that are not clearly defined. This thesis is unequivocally criticized from the standpoint of the history of the emergence and development of universities. But in Russia in the early twenty-first century, it acquires a special form. The education system in Russia suffers from many shortcomings, the most significant of which is organizational and financial inefficiency. Many universities are called universities, although in fact they do not even have advanced research programs [27, 28].

According to the previously stated position [7], the intellectual potential of the population, its level of professionalism and education, the development of science, technology and culture are an external resource of socio-economic development. The multiplication and effective use of this resource is the main condition for economic growth, improving the welfare of the people, promoting freedom and democracy, forming a civil society, ensuring social and political stability in the country, occupying a worthy place in the global economy and international relations, that is, in aggregate, and solving the most important problems of modern Russia.

Conclusions

Summing up our political and economical ideas about the development of the Russian education system on the example of higher education in the conditions of the digital economy, we emphasize that current trends are very contradictory. but the main one, unfortunately, is the prevalence of political decisions without taking into account long-term socio-economic consequences.

When comparing approaches to the definition of higher education goals, essentially two mutually related, but competing functions of higher school are found. This is the role of higher education in preparing qualification personnel for all sectors of the economy, on the one hand, and general intellectual development, the formation of a creative, socialized personality [26]. Finding the optimal combination of these two goals is related to the specifics of the economic relations in which the university operates, with a compromise resolution of the contradictions of economic interests in the higher education system. In other words, we have a problem of a political economy nature.

Corresponding to a market economy and democratic organization of society, are models built on market principles based on these principles, providing for a compromise harmonization of economic interests. The core of such models can be contracts providing for additional, scholarship student support and obligations relating to housing and other living conditions of the young specialist. Another important aspect is related to the economic interests of each individual university, as well as the personal interests of the professors and teachers working in it.

The predominance of the properties of the private good of the educational product of universities argues paid for higher education. For the foreseeable future, a combination of payment and free higher education in Russia is inevitable. However, the prospect looks in such a way that the share of payment for educational services will consistently increase.

Competition of universities in the market of scientific products for the receipt of the most profitable orders and the conclusion of contracts with firms and corporations stimulates universities to increase their ranking.

What matters is not whether the capital is a university or a provincial, but the scientific potential, image, brand, obtained patents for discoveries and inventions, scientific publications, the level of informatization of activities, implemented projects and, ultimately, a place in the scientific hierarchy.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHORS' CONTRIBUTION

Vladimir A. Noskov – conceptualization, project administration, writing – original draft.

Vasiliy V. Chekmarev – formal analysis; writing – review & editing.

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