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IDENTIFICATION OF KEY VECTORS OF THE TRANSFORMATION OF THE EDUCATIONS' SPHERE IN UKRAINE

The object of the study is the condition of the education system in Ukraine and directions of its development. One of the problematic points is the fact that the outdated principles of the functioning of the education sphere and the mechanisms of its management call for the formation of a new system. Education services are a type of social goods, the provision of which is guaranteed by the state. However, outdated management approaches the lack of economic levers of development in the functioning of educational institutions, the quality of acquired educational skills – all this requires the introduction of new directions of development and the application of new management models in practice, and not just declaring them on paper.

In the course of the research, the following scientific methods are used, such as a comparative analysis of scientific literature and information sources based on comparative methods to highlight the problem. Methods of systematization and grouping for finding ways to solve the problem. As well as methods of summarizing the results of the analysis and logically forming conclusions when formulating the components of the development of the sphere of education in Ukraine.

The article analyzes the problems of the modern sphere of education in Ukraine. As the main departments: instability of the financial condition of educational institutions; complications of introducing their autonomy in practice; reduction of state funding, etc. Quantitative analysis of state expenditures on education financing is provided. The need for systemic reform of the educational funding model to ensure transparency and efficiency with the simultaneous implementation of a differentiated approach based on quality indicators is substantiated. An analysis of the implementation of public-private partnership schemes in the field of education, as one of the methods of effective financing and training of specialists, who are needed in the modern market, was performed. There is a well-founded need to create an audit system of knowledge and skills acquired by pupils, students or trainees, as the main indicator of the correspondence between the directions of training of applicants and the needs of the labor market. The vectors of transformations and further development of the educations' sphere are outlined.

Keywords: *sphere of education, financing of education, public-private partnership in education, post-war restoration of the educations' sphere.*

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1. Introduction

Education is a public good and satisfies the needs of the individual, the state and the economy. The importance of education is determined by its participation in achieving a higher level of economic development of the state and as a result the development of human capital. One of the problems in achieving a higher social level of education and improving the material support of the population and the welfare of the state is the model of financing the education system [1]. Some countries choose full state financing of the education system, in some the private sector is involved in the financing and management of educational institutions. In Ukraine the private sector has been launched and the participation of private

business in the management of educational institutions has been declared. However, the model of state financing and management continues to function [2]. The development of science and education in Ukraine is currently characterized by a slow pace, which is due to global trends due to the COVID-19 pandemic [3], military operations and the corresponding decline in the national economy. However, post-war reconstruction cannot be implemented without the necessary funding and the search for its alternative directions. Educational and scientific strategies and programs that focus only on the use of budget funds do not allow authorities to implement large-scale, strategic projects that shape the country's competitiveness. Higher educational institutions of Ukraine received certain autonomy in the use and management of financial resources.

However their volumes are insufficient to cover urgent needs and modernization. A certain alternative of financing the education system in economically developed countries is public-private partnership [4, 5]. The issues of efficiency and effectiveness of the educations' sphere in Ukraine are raised in international reports of professional organizations [6]. The directions and development strategies of the Ministry of Education and Science of Ukraine also highlighted on these issues [7, 8]. The analysis of education financing and the need to introduce new management schemes and models is explained in the articles of Ukrainian scientists [9, 10]. The issues of reforming the education system, possible threats and challenges of changes in the management system of educational institutions are highlighted in the Strategy for the Development of Higher Education in Ukraine for 2022–2032 and thematic reports of the Ministry of Education and Science of Ukraine [11, 12]. The theoretical issues of the introduction of public-private partnership in educational institutions as an alternative source of financing, the legal basis of such a mechanism were raised in articles [13, 14]. Legal norms for the introduction of public-private partnership in Ukraine are regulated in the Law of Ukraine «On Public-Private Partnership» [15]. However, reforms and radical changes should affect the management of educational institutions and their financing, as well as the internal processes of providing educational services, their quality, and compliance with the urgent needs of the economy. All this determines further research into the current state of education.

Thus, *the object of the study* is the state of the education system of Ukraine and the directions of its development. And *the purpose of the study* is to identify the vectors of transformation and development of the education system of Ukraine at the current period.

2. Research methodology

The following scientific methods were used in the study:

- comparative analysis of scientific literature and information sources based on comparison methods to highlight the problem;
- methods of systematization and grouping for finding ways to solve the problem;
- methods of summarizing analysis results and logically forming conclusions.

3. Research results and discussion

Education is the process and result of mastering a system of knowledge and skills. On their basis, a worldview, moral and other personal qualities are formed. The conducts of full-scale military operations, the establishment of martial law, certainly influence the functioning of the educational sphere and shed light on certain problems:

- Demographic changes – reduction of the share of people of working age and before working age, the «aging» of the nation has been characteristic of Ukrainian society in recent years, and this problem has deepened at present. Thus, in 2021, the specific weight of the population of Ukraine aged 65+ was 17.4 % and exceeded the share of the generation of children aged

0–14 by 1.8 % [16]. There is an outflow of the labor force and persons younger than working age abroad, which is caused by security issues. According to estimates of the International Organization for Migration, more than 3.5 million people left Ukraine in the last 3 months [17]. The change in the population structure of Ukraine does not contribute to the development of the educational services market in the near future.

- Expanding distance learning and strengthening the role of non-formal education by acquiring knowledge and skills through online courses. A certain number of modern youth prefers self-education by studying at various courses/trainings as opposed to studying at universities. In addition, during the martial law, the integration of Ukrainian schoolchildren/students into foreign education systems takes place. Educational institutions abroad provide the right to free education, which contributes to the outflow of pupils/students from Ukrainian educational institutions.

- Reduction of the share of paid educational services due to the large supply of free resources on the market during the martial law in Ukraine, which, of course, leads to the deterioration of the financial condition of educational institutions, especially universities, which provided educational services on a paid basis.

- Decline in economic growth caused by military actions. A simultaneous increase in state budget spending on the military-industrial complex, a corresponding reduction in spending on other items, including education. It is worth noting that spending on education over the last decade did not change slowly (Fig. 1) [18].

On average, during the period 2011–2020, spending on education in the consolidated budget of Ukraine decreased by 146.7 million USD, which in relative terms amounted to 1.44 % fall annually. The generally accepted global comparison of budget expenditures on education and the value of GDP show that their share was 6.6 % in 2011 and 6.0 % in 2019, so the reduction was 0.6 %.

Financing of the education sector was at a rather low level and it is impossible to predict its increase now. This situation leads to a decrease in the quality of the provided educational services, the obsolescence of the material and technical base of educational institutions, the lack of use of the latest technological developments and modern software for training qualified personnel. The result is a mismatch between the supply and demand of specialists on the labor market.

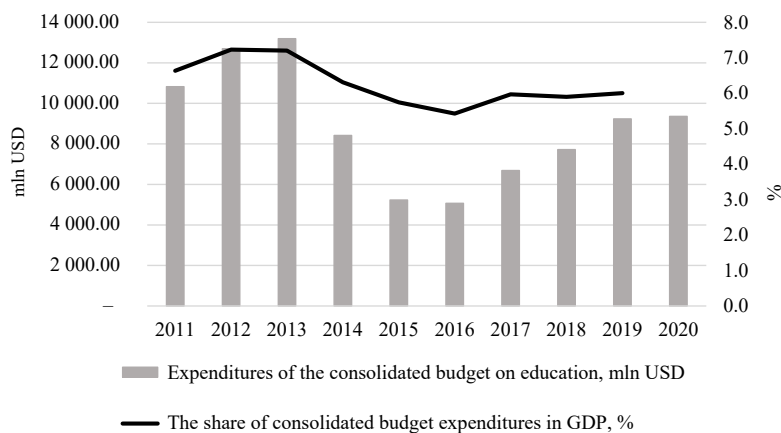


Fig. 1. Dynamics of expenses of the consolidated budget of Ukraine for education and their shares in GDP 2011–2020

In Ukraine higher education institutions are mostly state-owned. At the beginning of the 2020–2021 academic years, a total of 515 institutions of higher education were operating, of which the share of state institutions was 64.5 % of the total number [19].

At the same time, the share of students who were graduated from state-owned higher education institutions was 85.5 %. A relatively large public education sector has been formed in Ukraine. It is characterized by low efficiency, because it does not meet the urgent needs of the educational services market, either in terms of the quality of training of applicants, or in terms of training areas. According to the State Statistics Committee, the current population of Ukraine in 2021 was 41.6 million people [20]. Thus, there are 12 universities for every 1 million inhabitants. While in Western European countries this ratio in 2017 was 10 universities – in Poland, 5 – in Germany, 7 – in Hungary, 2 – in Spain etc. [6]. So a large number of educational institutions leads to dispersion of state expenditures in the education's field, weakens competition between institutions.

Financing education, especially higher education, is considered an investment in the development of the state. Undoubtedly, during the state of war, the decline in general economic indicators of the functioning of the state, the prerequisites for development are absent. But an economic analysis of the state of higher education, even in the pre-war years, shows the lack of a systematic approach to reforming the education sector. The outdated material and technical base, the slow pace of modernization of educational institutions and the low level of informatization are urgent problems [7]. Despite the reform of higher education, which consists in the consolidation of institutions by profile and, accordingly, the unification of their material and technical base, the degree of depreciation of fixed assets in the field of education remains quite high (Table 1) [20].

Table 1

Indicators of the material and technical condition of the education sphere in 2017–2020

| Years | 2017 | 2018 | 2019 | 2020 |
|---|-------|-------|--------|--------|
| The cost of fixed assets of the education sphere, at the end of the year, million dollars USA | 142.9 | 150.7 | 5907.2 | 6454.0 |
| The degree of depreciation of fixed asset, % | 42.4 | 47.4 | 46.0 | 52.7 |

The cost of fixed assets in the educational sphere for 2017–2020 increased by an average of 3.5 times annually, which is the result of consolidation of educational institutions. However, the rate of depreciation was also characterized by an increase of 7.5 % annually during this period. Such figures indicate an intensive way of development, without increasing the efficiency of the use of the existing material and technical base, a low level of its renewal and modernization.

The directions for improving the financial condition of the education's sphere can be the following:

- Merger or consolidation of institutions of the same direction. This will allow to accumulate material and

financial resources, will promote healthy competition among the personnel of higher education institutions.

- Introduction and implementation of public-private partnership (PPP), further privatization of educational institutions, their transfer to full self-sufficiency and introduction of competition in the market of educational services.

In international practice, such financial instruments as contracts, leases, and concessions are widely used within the framework of PPPs. The application of PPP depends on the level of socio-economic development of countries. In particular, in developed Western European countries, the sphere of education is one of the priority directions for the implementation of public-private partnerships, along with health care and the construction and maintenance of highways [13]. According to the Law of Ukraine «On Public-Private Partnership» [15], the provision of educational services is one of the spheres of application of public-private partnership. According to the data of the central and local authority of executive power in Ukraine, as of January 1, 2022, 193 contracts have been concluded under the terms of public-private partnership, of which:

- 31 contracts are implemented (22 – concession contracts, 5 – joint activity contracts, 4 – other contracts);
- 162 contracts are not implemented (119 – not implemented, 43 – terminated/expired) [11, 12].

But still no project has been registered in the sphere of education. Martial law should become an impetus for the introduction of public-private partnership in the sphere of education, in particular for: renewal and reconstruction of the material and technical base of destroyed or damaged institutions; provision of scholarships and grants to education seekers and scientific and pedagogical staff.

In addition to changing the management system of educational institutions, providing a greater level of autonomy, there is an urgent need to create an audit system of knowledge and skills acquired by pupils, students or trainees. The problem of the modern education system of any degree is the audit of only the form of education, not the content of education, not the acquired knowledge. Educational programs must pass the «exam» for professional suitability and relevance in modern life. This means the actual transfer of responsibility for the quality of education, teaching and research from the state directly to universities, as well as the opportunity for them to capitalize on their own academic achievements.

Outlined problems in the functioning of the sphere of education made it possible to develop vectors for its further development (Fig. 2) [6, 21].

Despite the mentioned shortcomings in the functioning of the modern education system in Ukraine, it also has many strengths, which are formulated in the SWOT analysis of the national higher education system [7]. Namely:

- modern educational legislation and standards of higher education (which must be put into practice, not declared on paper);
- the relatively low cost of educational services (educational services are available to the majority of the population of Ukraine);
- experience of international educational and scientific cooperation and readiness for changes in the context of European integration.

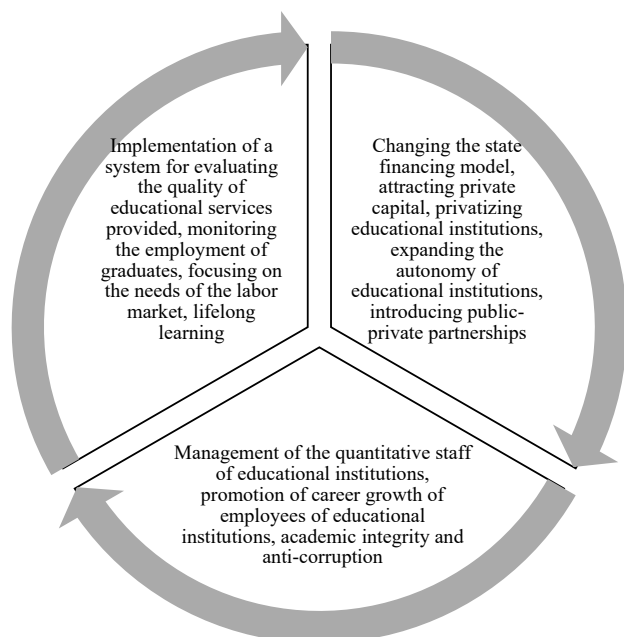


Fig. 2. Components of the development of the educations' sphere in Ukraine

Employees in the sphere of education are characterized by high flexibility in the implementation of the educational process, a certain number of modern companies help to overcome destructive realities in the sphere of education. In particular, the digital transformation is carried out at a very fast pace with the participation of such companies as Google, Microsoft, Zoom applications, Telegram, Viber, etc. [21]. Overcoming economic problems and restoring the economy is impossible without qualitative changes in the education system at all levels. In order to achieve the desired changes in the sphere of education, legislative changes must be implemented in practice. And this requires resources, technical breakthrough, public support and political leadership. In addition, it is necessary to carry out additional reforms aimed at eliminating the imbalances that still exist in Ukrainian society.

The conditions for the introduction of private capital in the management of educational institutions are the improvement of the quality of educational services and the qualitative composition of the personnel of educational institutions. The last component is limited to the low level of wages, which is completely uncompetitive in the labor market. The lack of an audit system for the quality of knowledge at all levels of education is also a limitation. It is necessary to break the closed circle «low quality of educational services – inconsistency with the needs of the labor market – uncompetitive staff – lack of financial resources», because each of the components determines each other.

4. Conclusions

The study analyzed existing problems in the functioning of the education sphere. An insufficient level of financing, a lack of levers for the introduction of new management models and attracting capital were revealed. The need to introduce alternative financing schemes is substantiated. Such can be public-private partnership schemes. This will allow the state to control the provision of educational

services as socially guaranteed goods and to protect vulnerable categories of consumers of these services. With a public-private partnership, the state can focus on strategic control, planning and quality assessment of the education system. Expanding the autonomy of educational institutions and involving private partners can be useful. The sphere of education must change fundamental approaches to assessment and audits of knowledge and skills. The principles of market-based healthy competition should be implemented for the acquirers of different levels of education and the personnel who ensure their provision.

Conflict of interest

The author declares that she has no conflict of interest in relation to this research, whether financial, personal, authorship or otherwise, that could affect the research and its results presented in this paper.

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