

UDC 339.13.012.42:37 (477)

DOI: 10.15587/2313-8416.2018.130464

**ANALYSIS OF EDUCATION FINANCING MODELS ON A MACROLEVEL**

© O. Reshetnyak, Ia. Radchenko, Yu. Zaika, E. Levytska, T. Kunicheva

*Досліджено можливі джерела фінансування системи вищої освіти в Україні на основі вивчення існуючих моделей фінансування у світі. Проаналізовано досвід використання різних джерел фінансування у країнах, що розвиваються, та виявлено основні аспекти напрямів розвитку сфери вищої освіти для України. Визначено перспективність використання недержавних джерел фінансування за рахунок інтеграції освіти, науки й виробництва в умовах науково-освітніх кластерів. Запропоновано формування освітніх кластерів, як перспективної форми взаємодії між учасниками освітнього процесу*

**Ключові слова:** фінансування, освіта, недержавні джерела, освітній кластер, моделі фінансування, диверсифікація джерел

**1. Introduction**

Competition in various educational systems has become a key element of global competition, which requires constant technology renewal, accelerated innovation, rapid adaptation to the demands and requirements of the dynamic world. At the same time, the possibility of obtaining high-quality education continues to be one of the most important vital values of citizens, a decisive factor in social justice and political stability. The solution of these issues depends on the possibility of ensuring proper financing of development of the system of higher education, identifying possible sources of funding for improving the quality of education.

**2. Literature review**

Issues of the effective functioning of higher education institutions are becoming more and more relevant, but despite this, it should be noted that scientists consider the problems of reforming education as an industry, without paying attention to the problems of extrabudgetary sources of funding for higher education [1, 2].

Despite the considerable attention of scientist to certain aspects of financing of higher education institutions, it is worth noting that scholars mainly consider the problems of reforming higher education as an industry, without paying attention to the problems of extrabudgetary sources of its financing.

**3. The aim and objectives of research**

The aim of research is analysis of the main world models of financing of higher education with the aim of identifying possible areas for improvement of the regulatory processes of development of this sphere in Ukraine.

To accomplish the aim, the following tasks have been set:

1. To study the main world financing models of the sphere of higher education;

2. To identify possible directions for improving the regulation processes of the higher education development;

3. To propose a perspective form of interaction between participants in the educational process.

**4. Analysis of the main financing models of higher education**

Modern education financing models, including higher ones, are flexible, adequate to respond to market initiatives, and implement the concept of lifelong learning. Different incentives for learning processes based on learning outcomes and educational activities are used in existing Higher Education Financing models: on the one hand, the best students, talented teachers and effective universities are encouraged, and on the other hand, different sanctions are applied to ineligible students and inefficient educational institutions [3].

In world practice, several approaches to the organization of public financing of higher education have been formed [4, 5]. Cost-based financing (Canada, UK, France, Japan, Sweden, Norway, China, Nigeria) suggests that budget funds come directly to higher education, and their use is clearly controlled by the state. Autonomy and hence the responsibility of universities for providing quality educational services is low.

The contractual financing of education (Brazil, Argentina, India, Greece, Italy) is based on the results of negotiations between representatives of higher education and educational ministries or financial institutions [6].

To consider possible ways to improve the financing mechanism of higher education in Ukraine, a comparative analysis of the existing models of financing education in the leading European countries and in Ukraine is necessary. For analysis and comparison of the level of let's determine the amount of expenditure as a percentage of GDP in order to unify the indicators (Table 1).

Table 1

Comparison of the level of higher education financing in Ukraine and European countries

Indicator	Germany	France	Great Britain	Ukraine
GDP per capita, USD, USA	41221	36248	43733	1965,81
Total expenditures on education, % of GDP	4,6	5,9	5,7	6,6
State spending on higher education, % of GDP	1,2	1,5	1,8	1,2
Total expenditure on education per capita, USD, USA	17 691	15 757	25 095	790,86
Population, persons, million	82,5	62,3	61,4	42,8

Source: calculated by authors on the basis of [7]

Analyzing the data of the countries of the world, let's note that Ukraine spends on higher education a significant share of GDP, which is not much lower than in the UK, Germany and France. However, the reason for the incorrect deviation is the difference in the GDP of the various countries, as evidenced by the "GDP per capita", which is almost 4.5 times lower than in Germany, 3.9 times lower than in France, almost 5 times lower than in the UK. The level of expenditure on higher education per student in Ukraine is almost 2.5 times lower than in Germany, 2.2 times – than in France, 3.0 times – than in Great Britain.

Thus, the factors of financing of higher education largely depend on the state of the country in the rating system of higher education. Comparison of funding mechanisms for higher education in Great Britain, Germany, France and Ukraine shows that predominantly in the studied countries, the decentralized system of education management prevails. However, this system does not mean a similar type of financing - funding mechanisms in all analyzed countries are different, including various options for decentralized funding.

Based on the analysis of the financing mechanisms of the above-mentioned states, one can conclude that the stronger the connection between the state and universities is, the more it has the ability to influence the implementation of national goals through higher educational institutions, including the mechanisms of financing of these institutions.

The main directions of diversification of funding sources for education are [8, 9]:

- establishment of tuition fees or fees for accommodation and food costs (Sweden, Norway, Finland, Denmark, most transition economies), cancellation or reduction of student grants and scholarships;
- reduction or "freezing" of subsidies for student loans;
- long-term attraction of financial donations from graduates, individual and corporate donors;
- issuance of bonds (University of Cambridge);
- formation of business universities that are able to commercialize the results of their scientific activity;
- corporatization and privatization of state universities – development of non-core activities;
- introduction of new instruments of state administration by the budgets of universities using grants, loans (conditionally returned), guarantees and insurance, mechanisms of share participation.

## 5. Research results

Having studied the experience of successful functioning of world educational systems, we will formulate the basic conditions of the development of the higher education in Ukraine due to the segregation of sources of its financing:

1) ensuring the conditions for a holistic, systematic development of the system of higher education, taking into account the interrelationships of its individual elements with the involvement of private sources of funding;

2) elimination of internal competition in the educational environment in a certain branch of economy and realization of principles of partnership and mutually beneficial cooperation, at the expense of which synergy effect can be achieved;

3) integration of all elements of the higher education in Ukraine at the expense of information flows and increase the level of centralization of management decisions on issues of ensuring the matching of demand for certain specialties (definition of the necessary set of competences) from the business structures and training of relevant specialists in higher education institutions;

4) improvement of procedures and rules governing the interaction within separate educational clusters, including the aspect of financing of separate educational programmes;

5) ensuring the optimization of the distribution of financial resources on the terms of public-private partnership in order to increase the efficiency of training specialists;

6) modernization and reconstruction of the existing interconnections between the individual participants in the educational process in Ukraine;

7) ensuring the systematic development of the infrastructure of higher education in Ukraine in accordance with the latest achievements of science and technology;

8) informatization and computerization of all information processes occurring within the educational cluster;

9) minimization of time and financial resources of consumers of educational services;

10) creation of a system that provides optimization of all information flows between participants of educational clusters;

11) creation of a unified information base that reflects all processes in the educational cluster.

## 6. Conclusions

1. The main world financing models of the higher education are researched. It is proved that the restructuring of the system of organization of higher education needs to improve the mechanisms of financing, organization of multi-channel (mixed) higher education financing.

2. Based on the study of existing models of funding for education abroad, it is discovered that the process of expanding the sources of education financing by the intensification of public-private partnerships is ongoing. Involvement of various sources of non-state financing provides opportunities for expanding the financial base

of higher educational institutions at the expense of extrabudgetary funds.

3. The integration of education, science and production in the conditions of scientific and educational clusters provides additional mutually beneficial opportunities both for educational institutions and for enterprises-customers in order to form productive strategic relations in order to increase the productivity of each individual activity [10]. Thus, Ukraine should actively use the international experience of creating educational clusters, which will increase the competitiveness of the educational system of the country as a whole.

## References

1. Alpatov G. Ye. Zakonomernosti razvitiya rossiyskogo professional'nogo obrazovaniya i neobkhodimosti ego modernizatsii. URL: <http://www.ibl.ru/konf/041208/79.html>
2. Korchagova L. A. Otsenka konkurentosposobnosti vuza // Marketing v Rossii i za rubezhom. 2007. Issue 5. P. 48–54.
3. Actual issues of education development in the OECD countries / M. V. Larionov (Ed.). Moscow: ID of the Higher School of Economics, 2005. 152 p.
4. Pawlowski K. Rediscovering higher education in Europe // Studies on Higher Education. UNESCO, 2004. 136 p.
5. Research Universities: Integration of Science and Education: Materials of the Russian-American Seminar "Research Universities". Moscow: Tver's Innocentre, 2005. 234 p.
6. Gretler A. Research in the field of education in Europe // Perspectives. 2000. Issue 3. P. 81–96.
7. Digest of Education Statistics. URL: [https://nces.ed.gov/programs/digest/2016menu\\_tables.asp](https://nces.ed.gov/programs/digest/2016menu_tables.asp)
8. Prospects of educational lending in Russia / Abankina I. V., Domenkova B. I., Levshina T. L., Osovetskaya N. Ya. // Education issues. 2004. Issue 4. P. 64–88.
9. Reshetnyak O. I., Zaika Yu. A. Vybir dzherel finansuvannya osvitynih program klastera // Biznes Inform. 2017. Issue 3. P. 307–311.
10. Zaika Yu. A. Analysis of the current state of economic conditions for the formation of educational clusters in the world // Science, education, society: topical issues and prospects of development: materials International. Science-practice conf. Odessa, 2016. P. 105–110.

*Рекомендовано до публікації д-р екон. наук, професор Марченко О. С.  
Дата надходження рукопису 22.03.2018*

**Olena Reshetnyak**, PhD, Associate Professor, Department of Economics and Law, Kharkiv University of Humanities People's Ukrainian Academy, Lermontovska str., 27, Kharkiv, Ukraine, 61024  
E-mail: reshetele@yandex.ru

**Iaroslav Radchenko**, PhD, academician of the highest category, Cyclic commission of economics and marketing, Kharkiv College of Trade and Economics of Kyiv National University of Trade and Economics, Klochkivs'ka str., 202, Kharkiv, Ukraine, 61045  
E-mail: kharkiv@htek.com.ua

**Yuliya Zaika**, PhD, head of department of Economics, Management and Administration, Cyclic commission of economics and marketing, Kharkiv College of Trade and Economics of Kyiv National University of Trade and Economics, Klochkivs'ka str., 202, Kharkiv, Ukraine, 61045  
E-mail: juliya.vovchenko@gmail.com

**Tetiana Kunicheva**, Head of Scientific and Methodic Laboratory, Kharkiv College of Trade and Economics of Kyiv National University of Trade and Economics, Klochkivs'ka str., Kharkiv, 202, Ukraine, 61045  
E-mail: tatkunicheva1@gmail.com

**Ievgeniia Levytska**, Education Coordinator of the highest category, Kharkiv College of Trade and Economics of Kyiv National University of Trade and Economics, Klochkivs'ka str., 202, Kharkiv, Ukraine, 61045  
E-mail: levyr1975@gmail.com