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FOREIGN METHODS FOR ENCOURAGING INNOVATION INVESTMENT IN HIGHER EDUCATION

The article describes the mechanism of investing in higher education abroad as a case study on how to improve this process in Ukraine. The research results demonstrate that not all the factors have a direct effect, nor they are all suitable for Ukrainians, due to low level of incomes.

Keywords: higher education; investments; financing education.

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ЗАРУБІЖНІ МЕТОДИ СТИМУЛЮВАННЯ ІННОВАЦІЙНОГО ІНВЕСТУВАННЯ ВИЩОЇ ОСВІТИ

У статті описано механізм інвестування вищої освіти за кордоном як приклад для покращення цих процесів в Україні. Результати показали, що не всі досліджені чинники мають прямий вплив або придатні для українського населення через низький рівень доходів.

Ключові слова: вища освіта; інвестиції; фінансування освіти.

Рис. 3. Табл. 2. Літ. 10.

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ЗАРУБЕЖНЫЕ МЕТОДЫ СТИМУЛИРОВАНИЯ ИННОВАЦИОННОГО ИНВЕСТИРОВАНИЯ ВЫСШЕГО ОБРАЗОВАНИЯ

В статье описан механизм инвестирования высшего образования за рубежом как пример для улучшения данных процессов в Украине. Результаты показали, что не все исследованные факторы имеют прямое влияние или пригодны для украинского населения в связи с низким уровнем доходов.

Ключевые слова: высшее образование; инвестиции; финансирование образования.

Introduction. At present leading countries of the world put special emphasis on education in human capital formation. Its level determines the intellectual capacity of any state and is the most important component of population welfare.

At the same time in Ukraine financial and material resources on the development of education are allocated in the last place, from whatever funds remained in the central budget; the share of education spending is only declining (Kalinuk, 2002).

The overall educational system had not been renovated for a while. As a result, the current status of education does not comply with the current requirements of the world.

Various aspects of financial support for higher educational institutions in the context of reforms in Ukraine were studied by Ukrainian scholars V. Bobrov and O. Padalka (2004), T. Boholib (2005), Y. Beskyd (2003) etc.

The issues concerning the development of an effective mechanism for higher education investment have not been sufficiently investigated, thus determining the choice of the topic of this article.

Objectives of the article:

- to investigate the conditions of attracting investment to education;
- to detect the obstacles that hinder the development of investment processes in education;

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- to identify the relationship between the investment climate and higher education potential;
- to reveal the mechanism of elements interaction in the investment processes in education.

Key research findings. The education investment system under the constant lack of budget funding seems to be ineffective in such aspects in particular:

- distribution of budget funds under budget classification items and observance of their targeted use do not allow using these resources under other specific conditions;
- increase of control over budget expenditures brings about the necessity to explain to financial authorities the expediency of each expenditure item;
- current structure of financial authorities does not make financial flows efficiently organized as such.

The world experience in reforming higher education systems and their investment mechanisms show that the government allow increasingly more opportunities for tertiary institutions in creating conditions for attracting private investors and increasing the number of off-budget education funding sources.

The start of reforms was triggered by the crisis of the national educational system, made itself evident in the inability to adequately respond and quickly adjust to rapid changes in science, engineering, technology, and social changes. Therefore, a number of Western countries are now fiercely critical of centralized policies in higher education, colleges and universities worldwide are being granted more autonomy in financial field, and the right to shape investment policy on their own. In the USA, for example, the federal state provides partial funding, exercises control over the expenditures of a given tertiary institution, control over the student population and education quality. In the countries where budgetary funding is still prevailing, a tendency to its reduction is visible – Austria, Germany, and France (Beskyd, 2003).

Reforms in national educational systems implemented in most countries are intended to search for the optimum balance of public and private funding, of centralized and decentralized management, an expedient measure of institutional autonomy, improvement of education quality and its adequacy to changes in society, development of the continuous education system, new forms and sources of investments by means of enhancing cooperation between high schools and tertiary institutions, tertiary institutions and corporations, tertiary institutions and society.

In Ukraine currently there is no mechanism as such for funds to be invested in higher education. This situation cannot continue for a long time and government's support for higher education system will eventually undergo changes. Possible models are the following (Bobrov and Padalka, 2004; Zelenskaya, 2001):

1. Gradual increase of funds allocated to tertiary institutions to be returned during 10–15 years back to government. At the same time, a mechanism of payment by enterprises for personnel study should emerge. This model if implemented would gradually build up the capacities of all industries and rise the gross national product 3–5 times.
2. Introduction of government credits for students. After graduation and further employment an appropriate enterprise or an individual citizen shall return the funds to the public budget within 5–10 years. This model requires an appropriate

system of higher remuneration of skilled labor to motivate citizens get higher education.

3. Organization of private funds system to finance training costs (the grant system). This requires legislatively established tax privileges for these funds and a system of agreements between tertiary institutions and the establishers of such funds.

4. Creation of a combined public system of support for tertiary institutions providing the refund of a minimum volume of current payments from public budget and an extra selective support for the development of specific tertiary institutions by government-sponsored special-purpose programs.

Modernization of education is aimed to create a sustainable mechanism for education system's development, its support through improving the effectiveness of investment policy (Table 1).

Table 1. Main trends of public investment policy on education support, authors'

Investment policy trends	Forms of expression	Consequences
Transferring the responsibility for payment of training costs from the State on individual players at the educational services market	Reduction of budget spending for students' support	Students apply to various forms of loan financing
	Complete or partial replacement of government scholarships	
	Introduction or increase of tuition fees	
Increase in the number of part-time students	Increase in the number of part-time students	Work is one of the ways to cover the growing tuition costs
	Increase of the time spent on work	Ensuring welfare Reduction in the number of loan applications
Increase in personal responsibility for getting higher education	Increase in the share of off-budget sources in tuition fees	Growth of private investments in education
	Increase in the share of loans in the support system	
Creation of a flexible public support system	Introduction of tuition fees with an opportunity to defer their payment until training completion	Creation of favourable economic conditions for getting higher education
	Creation of a system of government-sponsored scholarships, primarily for students from less well-off families	
	Credits from various sources	

Investment attractiveness of education depends on the following conditions: the situation of education investment, investment climate in a region, the advantages (earnings, increase in labor productivity etc.) that investors would receive (Puzikov, 2001).

However there also obstacles to the development of investing processes in higher education in Ukraine (Table 2).

Consequently, there arises an issue of the efficient spending of budget funds channeled on regulation of the labor market and educational services market, training and retraining of specialists. The state must retain the functions of a direct

investor in non-profit education development projects creating the conditions for mobilization of resources of both educational sphere itself and outside investors.

Table 2. Main obstacles in the development of investment processes in educational area, authors'

Long-term trends	The related short-term problems
Rigid government control and regulation of all activities. Lack of autonomy. Hierarchical rigid structure. Difficulties in combining educational and research activities.	Reduction in budget funding of higher education. Personnel low salaries, leading to outflow of highly skilled professionals to other sectors or other countries. Incomes derived from commercial activities are used inefficiently. Demographic problems. Transitional, unstable nature of society's development. Deep structural disparities in Ukrainian regional economy. Low technological level of Ukrainian industries. Significant fixed capital physical wear (70%). Shortage of enterprises' floating assets.

This concerns the solution of two problems:

- rational allocation of budget funds among all public educational institutions;
- creating conditions for attracting additional sources of investments.

Solution of the above problems is determined by the investment climate in the educational sphere, which is the system of legal, economic, and social conditions for investment activities. Such conditions are created under the influence of a wide range of interlinked processes reflecting the objective possibilities of the educational sphere for development and expansion of investment activities. The variety of interlinked processes also includes the operational conditions for investors along with a range of sustainable investment motivations.

It is widely acknowledged that education represents an area of not only spiritual but also social reproduction, a system of human potential reproduction that acts as a totality of physical and intellectual forces and abilities, knowledge and skills used to increase gradually and steadily society's productive forces. Hence, the notions "investment potential of education" and "investments in education" should be treated as the same as "investments in the economy".

Investment potential of education is a qualitative characteristic that takes into account both objective prerequisites for investments and the availability of various investment facilities, areas within the educational system (Figure 1).

Investment potential of education is realized through the quality of education that reflects the ever-increasing needs of societal development and is composed of the following basic potentials:

- material (buildings, structures, classroom stock, library stock etc.);
- workforce (number of faculties);
- financial (earning and spending patterns);
- innovation (scientific development level);
- consumer (student population etc.).

V. Puzikov (2001) identifies the following factors forming the investment potential in education:

- continuity, reproduction, increase and replication of scientific knowledge, cultural values and norms;

- the ability to anticipate the society's needs and demand at the labor market;
- search for "own" niche, new lines of activity, opening new, unconventional specialties and professions;
- flexibility and ability to respond to changes in social demand;
- structural and content-related educational reconstruction;
- expansion of boundaries, forms and levels of continuing lifelong education for all;
- development of intellectual and creative capacity of an individual in the course of educational activities;
- formation of a generation of specialists able to carry out qualitative changes in the area of their activities, within the system of management, in work culture and standards of labor, in the society in general.

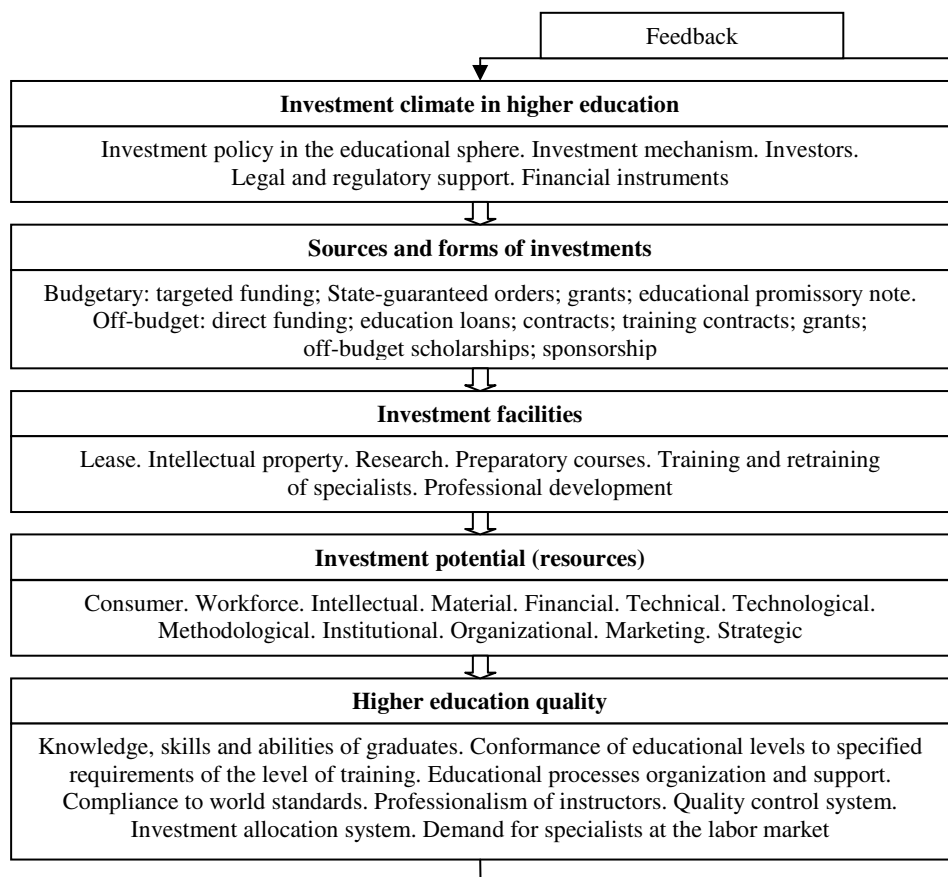


Figure 1. Relationship between the investment climate and investment potential in higher education (Puzikov, 2001)

An important objective of developing the investment potential and building effective mechanisms for investing in higher education consists in adequate determination of investment areas: primary, necessary for normal operation of a tertiary institution, and top-priority ones (Beskyd, 2003).

Prioritization of investment areas is the key parameter in efficiency evaluation of investments in education. Since investment resources are limited, a tertiary institution should make the best use of them.

Investor attaches importance not only to evaluation of certain indices but also to an aggregate characteristic of a given investment facility, which is basically the investment rating of an educational institution. Investment attractiveness rating as a system of indices fully describes the investment landscape and comprises both the investment facility potential and the methods of efficient allocation of investments by areas of its activity, which determine the education quality.

Today the investment potential of education is rather poor: outdated material and technical facilities, library stock, students' social security – all are at extremely low level. At the same time, we cannot confirm that the training level is directly related to the amount of investments in education. It is not enough to attract additional funding and increase the volume of investments; there is a need for targeted use of investments that are to be channeled primarily to the most promising areas of tertiary institutions activity (Bogolib, 2005).

The present-day system for funding of higher education for professionals must rely on the development of investing processes in education on the part of all entities concerned. These investment entities include the State, households, business firms, non-governmental funds, while the educational investment facilities may embrace the priority areas of a tertiary institution's activity.

Interaction of the investment process mechanism elements is shown in Figure 2.

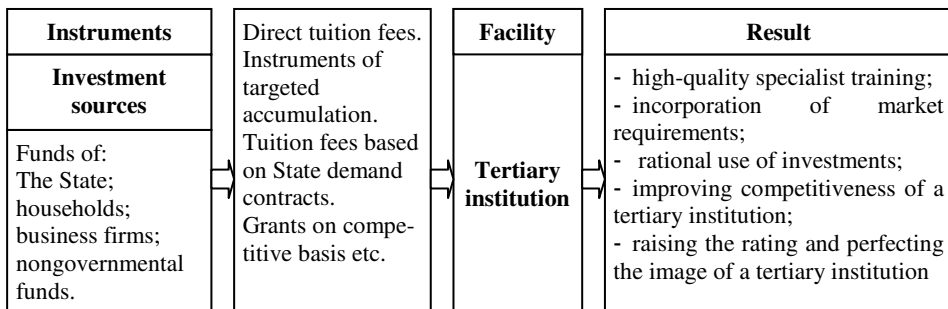


Figure 2. Interaction of the elements of the educational sphere investment process mechanism (Zelenskaya, 2001)

Using such investment sources as funds of the State, households, business firms, non-governmental funds and organizations helps the educational sphere survive and effectively operate.

State participation as an investment entity is to ensure the availability and equality of higher education services. Public funding should be multi-channel, i.e., implemented at three levels: nationwide, regional and local.

The mechanism of investment process is first of all an economic mechanism that represents specific cooperation of key subjects on organization, management and adjusting of investment process (Stupnitskiy, 2011).

Higher education investment process should be based on the following principles: legal; economic; scientific, methodological and operational.

Investment in higher education has its specific nature determined by specific operating conditions. Higher education investment mechanism from the perspective of the economic-organizational approach is shown in Figure 3. This approach considers a tertiary institution in terms of investments as an entity operating within market environment.

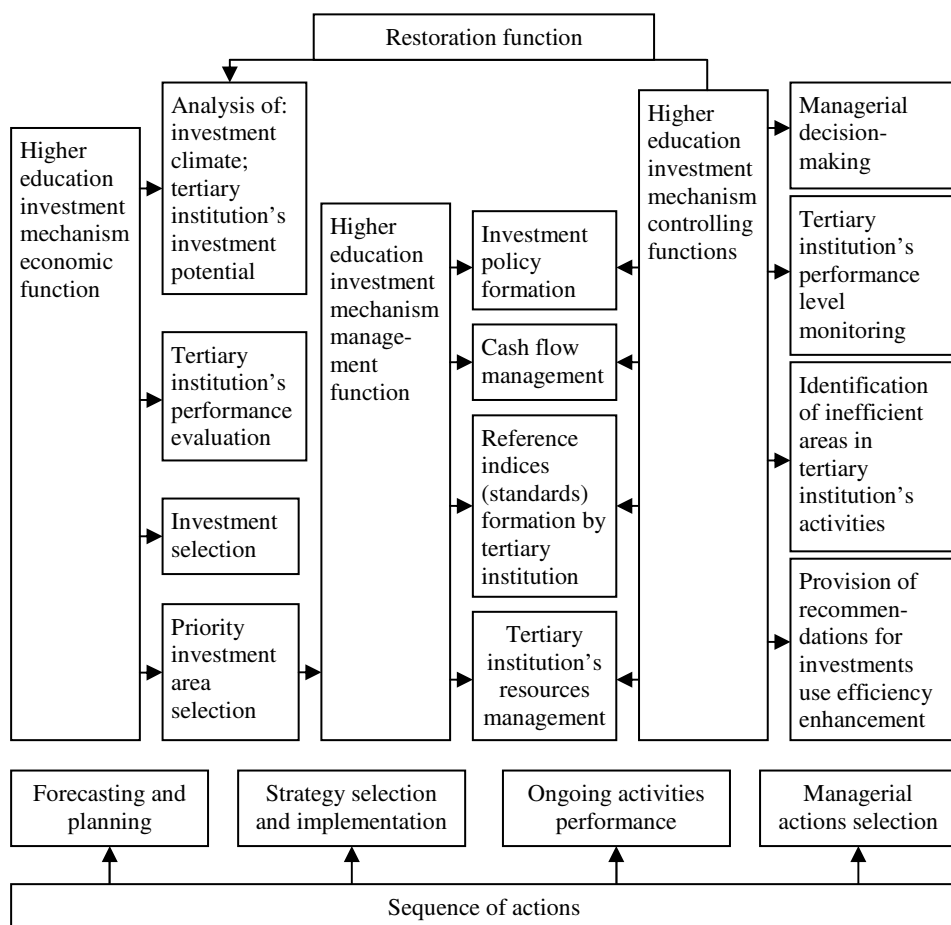


Figure 3. Higher education investment mechanism (Zelenskaya, 2001)

We are of the opinion that improvement of economic-organizational mechanism of higher education can be brought about in the following areas: government orders, well-grounded choices of specialist training; efficient use of the major sources of mobilizing off-budget funds; introduction of a reasonable classification of paid services in higher education institutions.

Conclusions. Investigation of investment potential of higher education shows that in the current context investment resources are in short supply; the training and resource base of tertiary institutions took a turn for the worse; graduates training quality is decreasing; there is a cutback in R&D and R&P services orders. An important objective of developing higher education investment potential consists in adequate

determination of investment areas: primary, necessary for normal operation of a tertiary institution, and top-priority ones.

Important areas of the educational system development include: mobilization of funds from various sources; enhancement of transparency, efficiency and control over the use of funds; development of multichannel funding of vocational education; transition to competitive and contractual investment mechanisms.

The state can and must provide considerable investment attraction from various industries, banks, population by stimulation of R&D, participating in the creation of venture funds and insuring their risks, cofunding of innovative programs etc.

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