

Вергун Михайло, Бондарчук Юлія

КОНЦЕПЦІЯ УПРАВЛІННЯ ІНВЕСТИЦІЙНИМ ПОТЕНЦІАЛОМ ЗАКЛАДІВ ВИЩОЇ ОСВІТИ В КОНТЕКСТІ СТАЛОГО РОЗВИТКУ

Анотація

В статті розглянуто концептуальні основи управління інвестиційним потенціалом сучасного закладу вищої освіти. Дана концепція дозволяє визначити комплексну характеристику стану інвестиційної привабливості закладу вищої освіти. Авторми запропоновано принципи, напрями та заходи щодо реалізації концепції управління в контексті сталого розвитку.

Для реалізації зазначеної концепції в рамках механізму управління інвестиційним потенціалом закладів освіти розроблено інструментальні засоби, які забезпечують динамічне функціонування організаційно-економічного механізму управління інвестиційним потенціалом закладу вищої освіти. Успішна реалізація стратегії розвитку забезпечить освітньому закладу конкурентні переваги на ринку освітніх і науково-дослідних послуг, сприятиме розвитку матеріально-технічної бази та заходів соціально-побутового характеру

Ключові слова: заклад вищої освіти; концепція управління; інвестиційний потенціал; рівень інвестиційного потенціалу закладу вищої освіти

Verhun Mykhailo, Bondarchuk Julia

MANAGEMENT CONCEPT FOR INVESTMENT POTENTIAL OF INSTITUTIONS OF HIGHER EDUCATION IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT

Annotation

The article considers the management conceptual bases of investment potential of a modern institution of higher education. This concept allows us to determine the complex characteristics of the investment attractiveness of an institution of higher education. The authors came up with principles, directions and measures for the management concept implementation in the context of sustainable development.

In order to implement the above concept, tools for ensuring the dynamic functioning of the organizational and economic mechanism for managing the investment potential of an institution of higher education are developed within the mechanism of managing the investment potential of education institutions. The successful implementation of the development strategy will provide the educational package with competitive advantages in the market of educational and research services, will promote the development of material and technical base and measures of social and domestic character

Keywords: an institution of higher education; management concept; investment potential; investment potential level of institutions of higher education.

1. Target setting

The functioning of a modern institution of higher education (IHE) in the market economy of Ukraine is connected with the diversification of its activities, which leads to the complication of the organizational system, and, consequently, management processes. Such a necessity is due to a significant decrease in budget funding, which the state directs for training specialists of various education levels [1; 2].

Under such conditions, IHEs obtain the status of a full-fledged business entity and the opportunity to be engaged in entrepreneurial activities in providing various types of services (educational, research, design, etc.), to determine its types independently, and, ultimately, to profit [3; 4].

As the statistics shows, Ukraine among other countries is among the leaders in terms of the number of functioning IHEs. The relative indicator of the population, which corresponds to one IHE in Ukraine, appears alongside the same indicators of the USA, Canada and Poland, but the economic indicators of these countries development are not comparable [6-8].

A large number of IHEs in Ukraine, on the one hand, is the result of democratization of the economy, and, on the other hand, the unreasoned state policy in education, which led to high competition between domestic education institutions. The demographic problems reinforce this factor of a market economy [9].

The achievement of the competitive advantage of the IHE is ensured by introducing innovations in educational and research processes, which is an effective mechanism in a market economy. Each IHE develops a development concept, which focuses primarily on affordable financial opportunities and attracted investments [10].

In order to withstand the existing competition, the IHE must really assess its competitive advantages, strengths and weaknesses and be actively engaged in investment activities. The key point here is the use of categories "investment potential" and "investment attractiveness" of IHE.

2. The statement of basic research materials

The analysis of existing approaches to the interpretation of the category "IHE investment potential" and the specifics of investment processes in the field of education and science allowed to develop a concept for the IHE investment potential management.

The basis of the proposed concept is the following principles:

- a universal structure of the investment potential of an institution of higher education in the form of corresponding components;
- relevant methods of managing investment potential, taking into account the specifics and functions of the IHE and the field of education and science in general;
- adequate methods of substantiation of the amount of resources necessary to implement measures to raise the level of investment potential of a specific institution of higher education.

The concept is detailed at the level of directions of the IHE and its structural subdivisions. The developed concept is implemented through a system of measures (orders, prescriptions, regulations, bylaws, investment projects) during a certain period of the IHE functioning.

The initial information is the specific volumes of resources (financial, personnel, logistical) that the IHE needs to attract to the implementation of activities (innovative programs and projects, institutional and infrastructural transformations) to increase the level of investment potential, which will lead to the effective investments implementation in this education institution.

The key role in this process belongs to the innovation and analytical center, whose functional purpose is to provide methodical, methodological, informational, consulting and other recommendations on the organization and management of the IHE investment potential.

Activity indicators of structural units come to the investment-analytical center on a real-time basis on the fact of a concrete event. The actual and generalized indicators are processed according to the appropriate methodology by the investment and analytical center using specialized methods.

The IHE investment potential level is evaluated using indicators, in particular: an integrated rating index; indexes on the thematic directions; rating indicators. Among the numerous groups of indicators that influence the IHE investment potential level, the most important role belongs to personnel, production, infrastructure, institutional, financial and innovation factors.

This concept allows us to determine a comprehensive description of the IHE investment attractiveness through an integrated rating index, as well as rating indicators of individual structural units (faculties, departments, centers, etc.). The integrated rating index significance is that on its basis, IHE resources can be formed and attracted to implement measures to improve investment potential.

Management influences within the proposed control management circuit are implemented through instrumental means. They are used by the management departments of the IHE, which ensure the formation of a process-oriented infrastructure of investment activity, management of the IHE investment attractiveness, optimization of its investment resources. They also can ensure transformation of the allocated resources for investment projects in accordance with the general objectives of the development concept of the IHE, taking into account the categorical definition of the investment potential of the IHE. In order to realize this concept within the organizational and economic mechanism of management of the investment potential of the IHE, instrumental means have been developed that ensure the dynamic functioning of the organizational and economic mechanism for managing the investment potential of the IHE. In addition to scheduling functions for a certain period, they provide prompt display of relevant information on the investment processes implementation within the concept of the IHE development for adopting effective management decisions.

Let's consider the effect of each instrument as a component of the organizational and economic mechanism for managing the investment potential of an institution of higher education.

At the heart of the refactoring tool for the formation of a process-oriented system for managing the infrastructure of the IHE investment activity are process-oriented and system approaches. This tool is aimed at improving the IHE investment infrastructure in the directions of forming a set of its interconnected and complementary elements and various organizational and legal forms. The IHE investment infrastructure must ensure a transparent flow of investment resources at all stages of the IHE investment process implementation.

The refactoring tool of the process-oriented system formation for managing the IHE investment activity infrastructure ensures the operation of a plurality of interrelated elements of various organizational and legal forms aimed at implementing the IHE investment activity in all its areas.

Business processes of this tool:

- provide an opportunity to assess the current status of IHE educational and scientific potential through a list of its opportunities for providing educational services, potential and existing scientific projects;
- provide search for external institutions that are suppliers of investment resources. It takes into account different ways of implementing these business processes: both for individuals who want to receive educational services; and for legal entities seeking scientific and applied developments; financial institutions that are trying to provide loans;
- provide an interaction organization of internal institutions that use investment resources, carry out their support and service. Such interaction is carried out through the implementation of business processes "Budgeting", "Contract Activity", "Budget Management";
- promote the investment projects with a transparent budgeting system organization, which gives an opportunity to assess the expenditure effectiveness incurred on the results of investment.

The management-refactoring tool of IHE investment attractiveness is considered from the point of view of motivating employees to increase its investment potential. The IHE investment potential level determines its

investment attractiveness. Employees' motivation can be material, financial, social and other, but for this it is necessary to have a transparent mechanism for the achievement records forming the investment potential.

The IHE investment potential is formed at the expense of the investment potential of the faculties (education and research centers), which, in turn, are formed at the expense of the investment potential of the departments. The investment potential of the department is determined by the educational, scientific and other activities of each employee (individual). Therefore, the task of rating the activity of each employee from academic staff (AS), each department, faculty and IHE as a whole arises due to indicative indicators that determine the investment attractiveness due to their comparison at the appropriate hierarchical levels.

Solving this problem is possible through the construction system for managing the rating assessment of the activities of the structural subdivisions of the IHE, in which the primary information comes not from the reports for a certain period of time, but on the fact of the implementation of a specific event. The event performer is an individual.

Indicative indicators of the rating assessment as structural subdivisions, IHE (administration) as a whole, as well as specific individuals, make it possible to identify areas of activity that are shortcomings, identify potential reserves and focus on eliminating disadvantages. In addition, these indicators allow a rating assessment of the activities of the structural unit both in general and in certain areas of its activities.

Comparison of indicative indicators of the activities of structural units is at the core of the distribution of investment universal resources, carried out by the administration of the IHE. They are formed at the expense of the general and special funds of the state budget.

The basis of this refactoring tool is the methods for analyzing information related to grouping, ranking, as well as more complex methods of mathematical modeling and forecasting, which enable to identify non-trivial facts and dependencies that relate to the state and dynamics of the change in the IHE investment potential. These methods are used to assess the development degree of the investment potential of an institution of higher education, obtain different forecast estimates, and, ultimately, develop a system of adequate indicators of the IHE budget to implement measures for increasing its investment potential.

The third refactoring tool is connected with optimization of the investment resource structure on the basis of monitoring the activities of financial responsibility centers – investment projects executors and the available opportunity to invest in the current period [11]. The method of means distribution of the universal investment fund is proposed, which is determined by the strategy chosen by the IHE authorities. The basis for such a distribution is the accumulation method of investment orders for projects of the current period and the comparison of activities of financial responsibility centers for their implementation in previous periods [12].

The most characteristic of the IHE activity cases that of great interest is when the amount of orders for the execution of investment projects is greater than the amount of available funds of the Universal Investment Fund.

The first possible option for distributing the funds of the Universal Investment Fund is a proportional reduction in the investment resources of all orders for execution of projects of the current period. The application of such a method of distribution is expedient if the projects requiring investment resources can be compared in importance to science, technology, economy, etc. This technique is especially suitable for long-term projects that are carried out over several periods. But it is not acceptable for projects that cannot be compared in their significance, as well as for projects whose economic expediency is difficult to prove, or a positive result can be obtained in certain circumstances, etc.

In such circumstances, it is worthwhile to cluster the projects and determine the coefficients of the significance of individual clusters. Next, it is necessary to distribute the funds of the general investment fund for clusters, and then, within the individual clusters, to reduce proportionally the order quantities of each project.

Among investment projects, such ones are singled out financing of which is carried out partly (or fully) at the expense of the general fund of the state budget, and partly – at the expense of a special fund of IHE, at the expense of which a universal investment fund is formed. Other investment projects do not have such a possibility of financing from the general fund of the state budget at all, but they are significant for IHE from the point of view of realization of practical needs, support of existing scientific schools and those passing the stage of formation, etc.

Therefore, one can resort to such a variant of the resource allocation of the universal investment fund, namely: support is given to the projects whose financing share from the general fund of the state budget is smaller than that of those with a financing share from the general fund of the state budget. Thus, investment projects, which either do not have financing from the general fund of the state budget, are stimulated, or such financing is insignificant.

In this case, the heads of the financial responsibility centers, where the funding share of investment projects at the expense of the state budget is insignificant, can choose a strategy of their activities, which would not involve an attempt to obtain such funding. To avoid this, the option to stimulate the attraction of funds from the general fund of the state budget is proposed.

Such an option involves the accumulation of the results of the allocation of the universal investment fund resources for a long period. An economic-mathematical model has been developed, which allows the current distribution of financial resources of a universal investment fund to be carried out taking into account previous allocations. Those centers of financial responsibility that received funding from the universal investment fund, in essence, at the expense of financial liability centers that had a specific share of financing from the general fund of the state budget, in distributions of subsequent periods, should compensate the received privileges.

Possibilities of implementing the proposed distribution options are achieved through the use of computer equipment and related software [13].

The described refactoring tools are the basis of the management concept of the IHE investment potential at the strategic, tactical and operational levels. They provide prompt provision of relevant information on the effectiveness of existing investment processes and recommendations for changing investment infrastructure for making efficient management decisions during the investment projects implementation.

The developed concept of the IHE investment potential management allows to achieve an efficient increase in their work:

- implementation of investment processes and projects (selection of investment projects, formation of financing sources for their realization, result evaluation of investment projects and their impact on the IHE investment potential level);
- making managerial decisions on the functioning of the IHE general investment infrastructure.

The information technologies improve the effectiveness of planning and evaluating alternatives of making managerial decisions. To do this, we use means of decision-making support that can increase the speed, accuracy and reasonableness of managerial decisions; improve the efficiency of the IHE functioning in general.

The information communication improvement between investment infrastructure centers contributes to timely and effective management decisions in this direction by the IHE authorities.

The developed concept of the IHE investment potential management ensures the efficient use of a process-oriented approach for transforming investment infrastructure, which ensures not only the quality improvement of its functioning elements, but also contributes to the IHE overall management improvement.

The realization of the IHE development concept requires constant attracting investments for innovative advancement of its activity directions. This process is in line with the generally accepted approach, which is considered as an investment of certain types of resources in the activities of the IHE in order to achieve the planned results in the future. The investment activity of the institution of higher education is related to its investment potential, which is a combination of investment opportunities of the institution of higher education, resources used and the staff involved in achieving the goals of the development strategy.

3. Conclusions

The successful development strategy implementation will provide the IHE with competitive advantages in the market of educational and research services, will promote the development of material and technical base and social and everyday events.

An insufficient research level of the category components "the IHE investment potential", which has specific features, determines the need to address the issues of development and optimization of the IHE investment resources and infrastructure.

In this regard, the need for research is determined by:

- the formation of a process-oriented system of the IHE investment activity management;
- the IHE investment attractiveness management;
- the optimization of the IHE investment resources structure.

The refactoring tools, which provide solution of the indicated problems of raising the IHE investment potential level, are economic and mathematical methods and models that involve the use of modern information technologies and systems.

Список використаних джерел та літератури

- [1] Грищенко І. М. Економічні аспекти проблем розвитку вищої освіти в Україні [Текст] / Грищенко І. М. [та ін.] // Нац. акад. пед. наук України ; Ін-т вищ. освіти НАПН України. – Хмельницький : ХНУ, 2010. – 478 с.
- [2] Іванов Ю. Конкурентоспроможність закладів вищої освіти споживчої кооперації на ринку освітніх послуг України [Електронний ресурс] / Ю. Іванов // Укр. кооперація. – 2011. – № 4. – Режим доступу: <http://www.ukrcoop-journal.com.ua/num/ivanov.htm>.
- [3] Закон України «Про освіту» [Електронний ресурс]. – Режим доступу : <http://zakon4.rada.gov.ua/laws/show/1060-12>.
- [4] Закон України «Про наукову і науково-технічну діяльність». – [Електронний ресурс]. – Режим доступу : <http://zakon4.rada.gov.ua/laws/show/1977-12>.
- [5] Яременко Л. М. Економіка вищої школи зарубіжних країн в сучасних умовах господарювання [Текст] / Л. М. Яременко // Економічний вісник ун-ту. – 2009. – Вип. 13
- [6] Бузько І. Р. Розвиток ринку освітніх послуг в Україні в умовах глобалізації освітнього простору [Текст] / І. Р. Бузько, В. Л. Бабаєвська // Наук. праці ДонНТУ. Серія: економічна. – 2004. – Вип. 84. – С. 108–114.
- [7] Марцинкевич В. И. Социально-экономическая эффективность: опыт США. Роль государства [Текст] / В. И. Марцинкевич [и др.] / РАН ; Ин-т мировой экономики и междунар. отношений. – М. : Наука, 1999. – 272 с.

- [8] Мережа вищих навчальних закладів на початок 2013/14 навчального року [Електронний ресурс] // Експрес-випуск Державної служби статистики України. – 2013. – № 05.4-119/218. — Режим доступу : http://www.ukrstat.gov.ua/express/expr2013/12_13/337.zip
- [9] Казаринова Н. Л. Інструменти фінансово-орієнтованого менеджмента вищого учебного заведення [Текст] / Н. Л. Казаринова. – Донецьк : ДонНУ, 2011. – 232 с.
- [10] Демчишак Н. Інвестиційний та фінансовий потенціал в умовах відкритості економіки: специфіка формування та співвідношення [Текст] / Н. Демчишак // Вісник Львів. ун-ту. – 2009. – Вип. 41. – С. 156–164.
- [11] Вергун М. О. Механізм оптимізації структури інвестиційних ресурсів ВНЗ з урахуванням світового досвіду [Текст] / М. О. Вергун // Економіка України в умовах глобалізації. – К. : ТОВ «ДКС Центр», 2015. – С. 273–301.
- [12] Вергун М. О. Удосконалення технологій фінансування діяльності вищих навчальних закладів [Текст] / М. О. Вергун // Вісник Київ. нац. ун-ту технологій та дизайну. – К. : КНУТД, 2012. – № 4 (66). – С. 34–30.
- [13] Вергун М. О. Формування структури інформаційного забезпечення процесів розвитку потенціалу ВНЗ [Текст] / М. О. Вергун // 36. матер. III Міжнар. наук.-практ. конф. «Інформаційні технології і системи в документознавчій сфері». – Донецьк : ДонНУ, 2013. – С. 115–118.

References

- [1] Hryshchenko I. M. Ekonomichni aspekty problem rozvytku vyshchoi osvity v Ukraini [Economic aspects of the problems of higher education development in Ukraine] / Hryshchenko I. M. [ta in.] // Nats. akad. ped. nauk Ukrainy ; In-t vyshch. osvity NAPN Ukrainy. - Khmelnytskyi : KhNU, 2010. 478 s.
- [2] Ivanov Yu. Konkurentospromozhnist zakladiv vyshchoi osvity spozhyvchoi kooperatsii na rynku osvitnikh posluh Ukrainy [Competitiveness of institutions of higher education of consumer co-operation in the market of educational services of Ukraine] [Elektronnyi resurs] / Yu. Ivanov // Ukr. kooperatsiia. – 2011. – № 4. – Rezhym dostupu : <http://www.ukrcoop-journal.com.ua/num/ivanov.htm>.
- [3] Zakon Ukrainy "Pro Osvitu" [Electronic resource]. - Rezhym dostupu: <http://zakon4.rada.gov.ua/laws/show/1060-12>.
- [4] Закон України «Про наукову і науково-технічну діяльність». – [Електронний ресурс]. – Режим доступу : <http://zakon4.rada.gov.ua/laws/show/1977-12..>
- [5] Yaremenko L. M. Ekonomika vyshchoi shkoly zarubizhnykh krain v suchasnykh umovakh hospodariuvannia [Economy of higher education of foreign countries in modern economic conditions] / L. M. Yaremenko // Ekonomichni visnyk un-tu. – 2009. – Vyp. 13
- [6] Buzko I. R. Rozvytok rynku osvitnikh posluh v Ukraini v umovakh hlobalizatsii osvitnoho prostoru [Development of the educational services market in Ukraine in the conditions of educational space globalization] / I. R. Buzko, V. L. Babaievska // Nauk. pratsi DonNTU. Seria: ekonomichna. – 2004. – Vyp. 84. – S. 108–114.
- [7] Martsynkevych V. Y. Sotsyalno-ekonomycheskaia effektivnost: opyt SShA. Rol hosudarstva [Socio-economic effectiveness: the US experience. The role of the state] / V. Y. Martsynkevych [y dr.] / RAN ; Yn-t myrovoy ekonomiky y mezhdunar. otnoshenyi. – M. : Nauka, 1999. – 272 s.
- [8] Merezha vyshchykh navchalnykh zakladiv na pochatok 2013/14 navchalnoho roku [Network of institutions of higher education at the beginning of the 2013/14 academic year] [Elektronnyi resurs] // Ekspres-vypusk Derzhavnoi sluzhby statystyky Ukrainy. – 2013. – № 05.4-119/218. — Rezhym dostupu : http://www.ukrstat.gov.ua/express/expr2013/12_13/337.zip
- [9] Kazarynova NL Instruments of Fynansovo-oryentirovannoho menedzhmenta vyssheho uchebnoho zavedenya [Instruments of financial-oriented management of an institution of higher education] / N. L. Kazarynova. - Donetsk: DonNU, 2011 - 232 s.
- [10] Demchyshak N. Investytsyni him finansovi potentsial v umovakh vidkrytosti ekonomiky: spetsyfika formuvannia spivvidnoshennia [Investment and financial potential in conditions of economy openness: specificity of formation and correlation] / N. Demchyshak // Visnyk Lviv. univ - 2009 - Vyp. 41. - S. 156-164.
- [11] Verhun M. O. Mekhanizm optymizatsii struktury investytsiinykh resursiv VNZ zrakushuvannam svitovoho dosvidu [The optimization mechanism of the university investment resources structure in world experience] / M.O. Verhun // Economy of Ukraine v umovakh hlobalizatsii. - K.: TOK "DKS Center", 2015 - S. 273-301.
- [12] Verhun M.O. Udoskonalennia tekhnolohii finansuvannia diialnosti vyshchykh navchalnykh zakladiv [Improvement of financing technologies for institutions of higher education] / M.O. Verhun // Visnyk Kyiv. nats and-you tekhnolohii it dyzainu. - K.: KNUITD, 2012. - No. 4 (66). - S. 34-30.
- [13] Verhun M. O. Formuvannia struktury informatsiinoho zabezpechennia protsesiv rozvytku potentsialu VNZ [The formation of information support structure for the development of the potential of institutions of higher educational] / M. O. Verhun // Zb. mater. III Mizhnar. nauk.-prakt. konf. «Informatsiini tekhnolohii i systemy v dokumentoznavchii sferi». – Donetsk : DonNU, 2013. – S. 115–118.

Verhun Mykhailo – Candidate of Economic Sciences, Chief Accountant, assistant of the Accounting and Audit Department, Kyiv National University of Technologies and Design, Nemirovich-Danchenko Street, Kyiv 01011, Ukraine, **e-mail:** vergunm@bigmir.net. **Where and when he graduated:** Kyiv National University of Technologies and Design, 2004. **Professional orientation or specialization:** accounting and auditing in budgetary institutions, the potential of institutions of higher education, the development of the system of higher education. **The most relevant publication outputs:** 1. Вергун А. М. Статистичні реалії формування інвестиційного потенціалу вищих навчальних закладів України / А. М. Вергун, М. О. Вергун // Міжнародний науковий журнал "Інтернаука". Серія : Економічні науки. – 2017. – № 8 (8). – С. 20-30. 2. Verhun A. Strategic management analysis in the EU countries / A. Verhun, M. Verhun // Baltic Journal of Economic Studies. – 2017. – Vol. 3, No 5. – P. 52-60. 3. М. А. Вергун Особенности организации управления информационным обеспечением экономических объектов/ М. А. Вергун Экономика: реалии времени, 2011



Bondarchuk Julia - Candidate of Philological Sciences, Associate Professor, the head of foreign languages department, Kyiv National University of Technologies and Design, Nemirovich-Danchenko Street, Kyiv 01011, Ukraine, **e-mail:** bondarchuk_julia28@ukr.net. **Where and when she graduated:** Kirovograd state pedagogical university named after V.Vinnichenko , 2001. **Professional orientation or specialization:** economics, philology. **The most relevant publication outputs:** 1. Podolna V. V., Topenko J. A., Ievseitseva O. S. Marketynhovi aspekty vdoskonalennia diialnosti audytorskykh kompanii v Ukraini (Marketing aspects of audit companies activities improvement in Ukraine) / V. V. Podolna, J. A. Topenko, O. S. Ievseitseva // Naukovyi visnyk Polissia Chernihivskoho natsionalnoho tekhnolohichnoho universytetu , #12, 2016. S. 340-345, 2. I.Tarassenko, J.Bondarchuk, O. Tarassenko. Methodological principles of assessing the impact of environmental factors on the level of economic security of higher educational institutions// Visnyk KNUTD, spetsvypusk, seriia «Ekonomichni nauky», materialy VII mizhnarodnoi naukovo-praktychnoi konferentsii «Efektyvnist orhanizatsiino-ekonomichnoho mekhanizmu innovatsiinoho rozvytku vyshchoi osvity Ukrainy», – K. : KNUTD, – s.351-359., 3. Bondarchuk Yu.A. Istorychni osoblyvosti ta peredumovy sprymannia ukrainskoi literatury v Anhlii (Historical peculiarities and preconditions for the perception of Ukrainian literature in England) // Pivdennyi arkhiv (Zbirnyk naukovykh prats. Filolohichni nauky). – 2017. – Vypusk 67. – Kherson, 2017. s.162-166