

ІННОВАЦІЇ

UDC 330.341

УДК 330.341

I. M. Gryshchenko, Doctor of Economic Sciences, Professor**I. M. Грищенко**, д. е. н., професор**INNOVATIVE APPROACHES TO FACILITATE THE INTERACTION BETWEEN RESEARCH, KNOWLEDGE-INTENSIVE BUSINESS AND HIGHER EDUCATION AS A FACTOR OF ENHANCING THE EDUCATION QUALITY****ІННОВАЦІЙНІ ПІДХОДИ ЗАБЕЗПЕЧЕННЯ ВЗАЄМОДІЇ НАУКИ З НАУКОЄМНИМ БІЗНЕСОМ І ВИЩОЮ ОСВІТОЮ ЯК ЧИННИК ПІДВИЩЕННЯ ЯКОСТІ ОСВІТИ**

Urgency of the research. Cluster approach today changes accents in determination of traditional tasks of higher education. Relations between institution of higher learning, market and state in recent year changed in behalf on a market. One of the actual going near the decision of such mutual relations there is social partnership of educational establishments and business.

Target setting. In modern higher education of Ukraine in recent year there are cardinal changes related to the search of new effective format of mutual relations between science, system of higher education and business.

Actual scientific researches and issues analysis. Scientific works of world scientists I. Kalenyuk, M. Gladchenko, A. Bernasconi, M. Brennan, A. Wall, J. Chrisman, T. Hynes, S. Fraser, D. De Zilwa, K. Debackere, R. Veugelers. Singh consider different aspects of innovation and business cooperation in higher education..

Uninvestigated parts of general matters defining. By scientists yet the worked not enough out questions of interaction three constituents namely researches, business and education due to the use of enterprise approaches.

The research objective. In the article the basic aspects of forming of the innovative model providing of innovative co-operation are exposed in the field of higher education in particular "triangle of knowledge" is research - education - business.

The statement of basic materials. In the conditions of modernization and innovative economy formation in Ukraine, the need for university academic research intensification is paramount. Therefore, Kyiv National University of Technology and Design puts a lot of effort to facilitate the integration between education, research and business.

Conclusions. Introduction of innovative model as bases of development of academic enterprise will allow to go across to Ukrainian institutions of higher learning to the new type of enterprise relations on principles of market economy.

Keywords: innovations; potential; investment tehnolohychnyy cluster; strategies; clusterization;"triangle of knowledge".

Актуальність теми дослідження. Кластерний підхід сьогодні змінює акценти у визначенні традиційних завдань вищої освіти. Відносини між вищим навчальним закладом, ринку і держави в останній рік змінилася на користь на ринку. Одним із актуальних підходів до вирішення таких взаємовідносин є соціальне партнерство освітніх закладів і бізнесу

Постановка проблеми. З розвитком сучасної вищої освіти України в останній рік відбуваються кардинальні зміни, пов'язані з пошуком нового ефективного формату взаємовідносин між наукою, системою вищої освіти і бізнесу.

Аналіз останніх досліджень і публікацій. Наукові праці світових вчених I. Kalenyuk, M. Gladchenko, A. Bernasconi, M. Brennan, A. Stinovi, J. Chrisman, T. Хайнс, С. Фрейзер, Д. Де Зілва, К. Debackere, P. Veugelers. Сінх розглядають різні аспекти співробітництва інновацій і бізнесу вищих навчальних закладів

Виділення недосліджених частин загальної проблеми. Вченими ще недостатньо опрацьовані питання щодо взаємодії трьох складових, а саме дослідження – освіта – бізнес на основі використання корпоративних підходів.

Постановка завдання. У статті розглянуті основні аспекти інноваційного моделювання розвитку співробітництва в галузі вищої освіти, зокрема «трикутника знань» дослідження - освіта - бізнес.

Викладення основного матеріалу. В умовах модернізації та формування інноваційної економіки в Україні, потребують інтенсифікації наукові дослідження партнерства в університетах. Тому для Київського національного університету технологій та дизайну є актуальною проблема дослідження інтеграції освіти, науки і бізнесу.

Висновки. Впровадження інноваційно-інтегративної моделі розвитку як основи академічного підприємництва дозволить перейти українським ВНЗ до нового типу корпоративних відносин заснованих на принципах ринкової економіки.

Ключові слова: інновації; потенціал; інвестиційно-технологічний кластер; стратегії; кластеризація; «трикутник знань».

Problem statement. Though the quality of education in Ukraine is proclaimed to be a national priority, a number of Ukrainian philosophers, academics, sociologists, psychologists and economists who study the educational processes assert that no fundamental changes in this area have been occurred so far. Despite all efforts, the national education system is still far out of real life, research and business, the teaching process remains essentially reproductive. However, in the last few years the contemporary higher education in Ukraine faces dramatic changes associated with the search of a new effective format of relations between science, higher education system and knowledge-based

ІННОВАЦІЇ

business. The basic pattern for ensuring innovative interaction is the so-called "knowledge triangle", i.e. research – education – business, which has to be our innovation model.

Latest research and publications analysis. The results of the analysis demonstrate that within modern society development the key factor in determining the competitiveness of the state is an increasing degree of economy innovativeness. Apparently, progress in the area of innovations challenges for more time, efforts, financial and organizational resources, institutional and structural changes than other factors. Moreover, such growth should occur at all hierarchy levels of economy management in Ukraine, including the levels of business, education and research as the key elements of the national innovation system.

Unresolved issues. Innovation and the information revolution claim for lifelong learning, which in turn requires close cooperation and collaboration of all stakeholders involved. The determining factor of the state economic growth is the formation of workforce, personnel, human capital.

The research objective is to develop innovative approaches to ensure interaction between research, knowledge-based business and higher education as a factor of improving the quality of education.

Key research findings. The study determined that unexplored to date are the main aspects of modern changes in the relationship of science, education and business, so-called "new combinations" are currently treated innovation in Education [7].

First, University graduates lack sufficient knowledge, practical skills, experience, critical thinking and creativity. On the other hand, they feel duped and disappointed to find out the diplomas they obtained were merely useless. This forces companies to spend extra money and time on re-training of young professionals, bringing graduates to the required level of competencies. The best solution to this problem is the partnership between universities and employers. The essence of this partnership is that university curricula are to be developed together with business community, academia and labour market experts, which will enable young people to proceed to full-time employment straightaway after the graduation. This represents a systemic approach to the new format of the educational process to ensure training quality, so that each graduate possesses a relevant set of modern competencies and job-related skills.

Secondly, new understanding has emerged that personnel training and development is a major factor and driver of long-term business success. Top management in many companies now show more interest in collaboration with universities, since they are not only education centres but also a powerful research platform. The partnership offers universities a unique opportunity to look at certain processes from a different perspective and to provide an analysis of strengths and weaknesses of the educational process. This cooperation under the slogan "while learning we are working and learning while working" proved to be very important and useful for both parties. Young professionals today need to be prepared to gain new abilities and skills throughout a lifetime, constantly evolve and learn.

Thirdly. The economy and technology now are rapidly developing. The growing dynamics of market-based relationships challenges changes in universities development and the need for continuous improvement of goals and objectives of the educational process to meet the needs of the state, industry, business and labour market. Continuous improvement should be viewed as ongoing efforts to update teaching methods and techniques to ensure the high quality of training based on educational process modernization and solving practice-related tasks relevant to the current socioeconomic development model.

Employers interested in qualified personnel are ready to integrate into the education system through various ways, in particular through their membership in the Supervisory Boards of universities, participation in curriculum and professional standards development, organization of on-the-job training, thus facilitating professional education. Their important task is to specify what knowledge and skills are needed in the workplace. The basic forms of cooperation between educational institutions and employers might be the following:

- delivering work placement and internship programmes;
- assistance in teaching facilities and equipment upgrading;
- direct participation of business practitioners in the study process – arranging university guest lectures;
- joint training programmes;

ІННОВАЦІЇ

- participation of businesses and entrepreneurs in the development of educational standards;
- formation of competence-based and industry-related Professional Standards Boards to meet the labour market demand in professionals with particular skills;
- building University – student – employer mutual responsibility etc.

The implementation of these principles in the higher education system of Ukraine will contribute to achieving the primary goal of training of highly qualified specialists able to compete at national, European and global labour markets [5].

Fourthly. This aspect is being actualized by the critical need to achieve common interests of business and education – i.e. training of creative, competent, mobile and easily adaptable to highly competitive market environment specialists.

As experience shows, the vast majority of employers are dreaming of smart, advanced, creative and competent professionals. Given the strategic objectives of the contemporary higher education system, it is targeted on the development of the above qualitative personality characteristics. Hence, the employer and the education system are quite unified in their desires. Therefore, they can build sustainable future only together, by joint efforts, speaking "the same language" and moving towards the same goal. It gives grounds to start a meaningful dialogue between university faculty, scholars and business. The result of this dialogue should be the uprise of partnership programmes instead of the outdated practice of patronage relationships. Universities have to strive for a desire to mould in students the capacity to be creative and generate new knowledge.

However, under financial instability and the availability of various ownership forms the state is trying to shift the solution of problems on employers or business owners, mistakenly believing that the need for employment is mainly found in a private sector. And the latter, according to state officials claims, should voluntarily help educational institutions to upgrade the teaching facilities and equipment, arrange student on-the-job training and work places, design curricula etc. This misguided approach conflicts with reality, since the need for staff arises among employers only when their industry is developing being within the state priorities and support.

Fifthly, the innovative form that brings together research, higher education and business is represented by a cluster. In recent years in Ukraine a new concept of educational clusters has been actively implemented in the professional discourse. This term has long been used in theory and practice, widely interpreted as a merger of economic entities, which generally operate within a defined territory. By analogy with the economic cluster, educational cluster is mostly defined as concentration of geographically localized and interrelated institutions of vocational education, providing job-related, cross-utilization professional training and engaged in partnerships with each other and with employers in the sector.

Traditionally. the key cluster actors are enterprises and organizations of the corresponding profile, objects of information and telecommunication infrastructure, research and educational institutions and organizations, business associations etc.

As part of the production cluster education institutions in the first place have to perform effectively their economic function – train personnel to meet the needs of employers, create the so-called 'islands' of workforce in the region with the necessary job-related competencies and skills, focusing on regional priorities of the innovation economy.

Apart from HR, no less important is the social function which is associated with the cultural development of the population, education of youth and its socialization.

As evidenced by experience, educational cluster operates not only as a voluntary association of organizations but as an administrative unit with relevant resources that can perform part of critically important organizational functions like:

- monitoring the needs of employers, the labour market supply and demand;
- participation in educational and training programmes adjustment;
- arrangement of academic activities according to quality management system requirements;
- enhancing efficiency in education based on the integration of theoretical knowledge and innovation technology;
- delivering research and methodological workshops with the participation of cluster actors;
- building the system of supplementary professional education (retraining, career development, work placement for teaching staff at partner enterprises etc.);

ІННОВАЦІЇ

- holding joint activities, conferences, business meetings, holiday tours etc. which would contribute to further cooperation development;

- carrying out joint R&D activities, projects etc.

Cluster approach today is changing the focus in determining the traditional objectives of higher education, in particular for adjusting the professional study programmes, eliminating the controversies between education content and employers' demands for qualifications and skills.

Sixth, there is yet another trend in the field of higher education associated with the development of financial mechanisms of universities functioning, in particular, establishing various types of partner structures and delivering on their basis joint commercial activity. This area includes:

the creation of strategic alliances with business partners;

attracting partners for holding educational activities;

creating a database for work placements;

attracting partners for implementing universities image projects;

creation of joint ventures or joint production activity at partner premises;

joint innovation activities, the participation of university academic staff in innovation projects;

expert assessment activity etc.

Most of the above does not assume transferring of financial flows and direct financing of universities at the expense of a partner. However, all these projects have the potential to contribute to raising supplementary funding of universities, as well as enhance the partners' motivation to participate in financing the university projects. The most attractive direction in establishing partner structures is associated with the development of strategic alliances. Such structures may include one or more integrated educational institutions, large companies operating in strategically important area of professional activity, other territorial organizations, able to affect the quality of graduates training and developing appropriate for strategic business partners competencies and skills.

The creation of the endowment funds of higher education institutions [1] and the application of fundraising technology are closely related to partner structures established by universities. In fact, the endowment is a special university fund formed at the expense of its partner organizations. Higher education institutions have no right to dispose the proceeds of this fund at their discretion [5]. The endowment assets are transferred to the management company to generate return on invested capital, from which some university projects are funded.

Fundraising is the art of attracting financial assets to a public sector of the economy. Currently, the procedure of fundraising is carried through specific technology with its own structure – the key stages, patterns and methods of implementation. In the result of successful fundraising universities gain not only the ability to accumulate additional financial resources to ensure their current activities and delivery of particular projects but also a chance to demonstrate their value to the society or specific business area, to their potential sponsors and what is even more important – to potential partners. Thus, the right application of fundraising technology will contribute to building long-term partnerships between higher education institutions and other business structures which will further result in bringing extra income and additional financial resources [6].

The relationships between universities, the market and the state in recent years have changed in favour of the market. The development of contemporary educational services market largely depends on mapping of a range of the current political trends and evaluating their influence. One of the effective approaches to settling the above relationships is the social partnership of educational institutions and business.

In the course of this interaction the following objectives are accomplished:

- mutually beneficial joint activities aimed at development and improvement of vocational education are carried out;

- enhancement of social infrastructure occurs;

- mechanisms and instruments of interaction between educational services market and labour market are developed;

- ease of access to labour market information is achieved;

- meeting the demands of employers to graduates training;

- expanding the opportunities of on-the-job training and internships;

ІННОВАЦІЇ

- the possibilities of teaching staff training to familiarize them with the latest equipment and technology at enterprises are developed;
- expanding employment opportunities of graduates;
- new joint commercial projects to replenish the special university funds are implemented.

In the conditions of modernization and innovative economy formation in Ukraine, the need for university academic research intensification is paramount. Therefore, Kyiv National University of Technology and Design puts a lot of effort to facilitate the integration between education, research and business.

In practical terms integration means bringing together two or more parties with the aim of implementing scientific, educational and industrial potential of each of the partnership participants.

The idea to integrate education, research and industry has not come out of nowhere. In the twentieth century, the USSR has accumulated considerable experience in the integration of education and production (the system of plant – higher technical education institution alliance), as well as in the field of combining education and science (the system of plant – physics and technical HEI). A retrospective analysis of peculiarities of integration of education, research and business revealed various organizational forms of this integration in Ukraine: technology parks, research departments at enterprises, integrated educational and research complexes, University complexes (business incubators, commercial centres for technology transfer etc.). The integration of education, research and business is a voluntary cooperation. But, significantly, out of the three integration partners education turns to be the linchpin and the key influence factor of integration development.

Apparently, strategic partnership is the framework to enhance internal economic integration and competitiveness growth within particular market environment. A good example of successful strategic partnership of education and business is the case of cluster-based cooperation between Kyiv National University of Technology and Design and the OJSC "Volodarka" (Vinnytsia). Another measurable outcome is the creation of a modern student training and research centre "Express Design Studio" at the University. The centre has become a hub for boosting innovations, implementing students' ideas and aspirations; moreover, it is a source of additional funds to improve the social status of University staff, facilitates the image-support function for each of the partnership participants.

Conclusions and further research perspectives. Extensive multifaceted cooperation with industrial sector has always been and remain within the key priorities of Kyiv National University of Technology and Design. Another example of innovation is the use of the University capacity and resources through cooperation in educational investment and technological light industry cluster, created with the participation of Kyiv city state administration. The cluster contributes to the modernization and increase of competitiveness of light industry enterprises by ensuring the efficient application of production, resource and R&D potentials.

The prospects of cluster development of light industry are primarily related to the implementation of joint innovative projects and personnel training. Another crucial component of the cluster activities is the provision of qualified human resources with relevant skills and competencies to staff the regional companies, their contractors and partner organizations. The achievement of these objectives is fully ensured by the capacities and efforts of Kyiv National University of Technology and Design.

References

1. Pro vyshchu osvitu: Zakon Ukrainy [The Law of Ukraine On Higher Education]. (2014). Kyiv : PALYVODA A. V., P. 100 [in Ukrainian].
2. Pro vnutrishnye ta zovnishnye stanovishche Ukrainy v 2015 rotsi: Analychna dopovid' do Shchorichnoho Poslannya Prezidenta Ukrainy do Verkhovnoyi Rady Ukrainy [On the Internal and External Situation of Ukraine in 2015: An Analytical Report on the Annual Address of the President of Ukraine to the Verkhovna Rada of Ukraine]. (2015). Kyiv: NISD, P. 684 [in Ukrainian].
3. Busel, V. T. (2002). Velykyi tлумachnyi slovnyk suchasnoi ukrainskoi movy [Velykyi tлумachnyi slovnyk suchasnoyi ukrainskoyi movy]. Kyiv; Irpin' : VTF «Perun», P. 1440 [in Ukrainian].

Література

1. Про вищу освіту: Закон України: [офіц. текст]. — К. : ПАЛИВОДА А. В., 2014. — 100 с.
2. Про внутрішнє та зовнішнє становище України в 2015 році : Аналітична доповідь до Щорічного Послання Президента України до Верховної Ради України. — К. : НІСД, 2015. — 684 с.
3. Великий тлумачний словник сучасної української мови / уклад. і голов. ред. В. Т. Бусел. — К. ; Ірпін' : ВТФ «Перун», 2002. — 1440 с.
4. Єрмошенко, М. М. Механізм розвитку інноваційного потенціалу кластерооб'єднаних підприємств : монографія / М. М. Єрмошенко, Л. М. Ганущак-Єфіменко. — К. : Національна академія управління, 2010. — 236 с.
5. Кузнецов, С. В. Кластерный подход в

ІННОВАЦІЇ

4. Yermoshenko, M. M., Hanushchak-Yefimenko, L. M. (2010). Mekhanizm rozvytku innovatsiynoho potentsialu klasteroob'yednanykh pidpryyemstv Kyiv: Natsionalna akademiya upravlinnya – Kyiv National Management Academy, P. 236 [in Ukrainian].

5. Kuznetsov, S. V., Tolicheva, L. D. (2013). Klasternyi podkhod v modernizatsii regionalnykh sistem professionalnogo obrazovaniia [Cluster approach in modernizing regional vocational education systems] Ekonomika i upravlenie. — Economics and Management, № 3, pp. 59–63 [in Russian].

6. Kuts S. (2008). Fandreyzinh [Fundraising]. Kyiv : Tsentr filantropiyi [in Ukrainian].

7. Natsionalna stratehiia rozvytku osvity v Ukraini [National Strategy for the Development of Education in Ukraine]. (2011). Materialy III Vseukrainskoho zizdu pratsivnykiv osvity. - Proceedings of the III All-Ukrainian Congress of Educators Kyiv, Chernivtsi : Bukrek [in Ukrainian].

8. Shumpeter, Y. (1982). Teoriya ekonomicheskogo razvitiya (Issledovanie predprinimatelskoy prybyli, kapitala, kredita, protsenta i tsikla koniunktury) [The theory of economic development (Study of entrepreneurial profit, capital, credit, interest and the cycle of the conjuncture)]. Moscow : Progress [in Russian].

модернизации региональных систем профессионального образования / С. В. Кузнецов, Л. Д. Толичева // Экономика и управление. — 2013. — № 3. — С. 59–63.

6. Куц, С. Фандрейзинг ABC : посібник для початківців / С. Куц. – Київ : Центр філантропії, 2008.

7. Національна стратегія розвитку освіти в Україні // Матеріали III Всеукраїнського з'їзду працівників освіти. — К. ; Чернівці : Букрек, 2011. — 400 с.

8. Шумпетер, Й. Теория экономического развития (Исследование предпринимательской прибыли, капитала, кредита, процента и цикла конъюнктуры) : пер. с англ. / Й. Шумпетер. — М. : Прогресс, 1982. — 455 с.

Received for publication 18.01.2017

Бібліографічний опис для цитування :

Gryshchenko, I. M. Innovative approaches to facilitate the interaction between research, knowledge-intensive business and higher education as a factor of enhancing the education quality / I. M. Gryshchenko // Науковий вісник Полісся. – 2017. – № 1 (9). ч. 2. – С. 48-53.