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ORIGINAL

Role of business and education in the development of the national economy: world experience and ways of improvement in Ukraine

Papel de las empresas y la educación en el desarrollo de la economía nacional: experiencia mundial y formas de mejorar en Ucrania

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ABSTRACT

Introduction: business and education play a critical role in the development of the national economy around the world, and Ukraine is no exception. The development of these sectors affects many aspects of economic growth, and modern world experience provides several important guidelines for improving their role in the Ukrainian context.

Methods: this article explores the role of business and education in the context of the national economy development, in particular in the context of Ukraine. The article considers the world experience and best practices relating to the interaction of these spheres, and offers concrete ways of improvement for Ukraine.

Results: the article discusses specific actions that can be implemented in Ukraine to improve the participation of business and education in the development of the national economy, including simplifying business processes, stimulating foreign investments, developing innovations, and improving the quality of education,

Conclusions: finally, the implementation of the recommendations developed by the authors will help Ukraine achieve sustainable economic growth and improve living standards.

Keywords: Education; Science; Business; Integration; Innovation; Entrepreneurship.

RESUMEN

Introducción: las empresas y la educación desempeñan un papel fundamental en el desarrollo de la economía nacional en todo el mundo, y Ucrania no es una excepción. El desarrollo de estos sectores afecta muchos aspectos del crecimiento económico, y la experiencia del mundo moderno proporciona varias pautas importantes para mejorar su papel en el contexto ucraniano.

Métodos: este artículo explora el papel de las empresas y la educación en el contexto del desarrollo de la economía nacional, en particular en el contexto de Ucrania. El artículo considera la experiencia mundial y las mejores prácticas relacionadas con la interacción de estas esferas y ofrece formas concretas de mejora para Ucrania.

Resultados: el artículo analiza acciones específicas que se pueden implementar en Ucrania para mejorar la

participación de las empresas y la educación en el desarrollo de la economía nacional, incluida la simplificación de los procesos comerciales, la estimulación de las inversiones extranjeras, el desarrollo de innovaciones y la mejora de la calidad de la educación.

Conclusiones: finalmente, la implementación de las recomendaciones desarrolladas por los autores ayudará a Ucrania a lograr un crecimiento económico sostenible y mejorar los niveles de vida.

Palabras clave: Educación; Ciencia; Negocios; Integración; Innovación; Emprendimiento.

INTRODUCTION

The transition to a post-industrial way of social reproduction and the expansion of the concept of knowledge society has significantly changed the vector of the world economy and determined its innovative orientation. The advanced international experience proves that the peak of innovation activity is reached at the point of intersection of interests of three economic entities: the state, business, and educational institutions. At the same time, universities are the generator of innovative processes. The state and the business community act as customers, consumers, and investors of innovative developments.⁽¹⁾

The transformation of the modern economy into the knowledge economy takes place on the basis of close integration of technologies, science, education, and business. The development of the national economy is a key task for each country. Finding optimal ways to achieve sustainable and progressive economic indicators requires an integrated approach in which the roles of business and education are especially important. The world experience shows that the interaction of these spheres has a powerful impact on the economic development and competitiveness of the country.⁽²⁾

Real success in the development of the national economy is not possible without the active participation of enterprises and higher educational institutions (hereinafter - HEIs). Business acts as an engine of economic growth, creating jobs, attracting investment and stimulating innovation. At the same time, education determines the quality of the workforce, provides the necessary skills and knowledge for the effective participation of the national workforce in the global labour market.

The classical higher education, which provides the graduate with purely theoretical knowledge, finally dived into history. One of the main challenges of present-day world is new requirements for professional qualities in terms of technology, which change with the speed of presentation of new iPhone models or regular versions of macOS or Windows. So, the practice should go along with the theory from the first courses of the university. Therefore, in order to overcome personnel hunger, employers should take an active part in the university education of their future employees.

Reducing national spending on education leads to a reduction in university budgets. At the same time, no matter how much the number of budget places in universities is reduced, the Ukrainians strive for education. It so happened that the mentality of Ukrainian citizens orients young people to higher education. It is known that almost 80 % of school students seek to enter a university although not always graduates choose a HEI on their own; instead, parents do it this for them.⁽³⁾ So, the motivation to acquire knowledge, skills and experience (competencies) is replaced by the desire to get a diploma since it allows the graduates to get a starting position in any company. Consequently, the quality of education is withdrawn to a secondary position.

Recognizing the role of education as a leading civilization factor in ensuring human development, scientists note that in an innovative economy it becomes the foundation of human capital. The results of human capital use can be private (useful for its carriers) and social (useful for the national economy as a whole).⁽⁴⁾ The efficiency of investment in human capital is characterized by an increase in personal indicators (career growth, creativity, intellectual level, etc.), the value (GDP), and the quality of life.

The main carriers of knowledge in the country are academies of sciences, research institutes, national research centres, research and development laboratories and centres, engineering centres that conduct fundamental and applied scientific research, commissioned by public authorities and business. Higher education institutions carry out scientific and research work to provide business with prepared platforms for testing ideas and developing prototypes and to bring professional training of students to the requirements and demands of the labour market, taking into account innovative and entrepreneurial components.⁽⁵⁾ Representatives of business as the third basic element of modern integration processes in the economy are conductors of innovations, who provide the production side of the research process, contribute to the accelerated commercialization of ideas and innovations.⁽⁶⁾

This article focuses on the study of the role of business and education in the context of the development of the national economy. We will consider the world experience and best practices from these areas, as well as provide suggestions on possible ways to improve the collaboration between education and business in Ukraine. The analysis and practical recommendations given in the article are aimed at promoting further economic

development and improving the quality of life of Ukrainian citizens. The article presents a comprehensive analysis of the world experience in the interaction between business and education in the context of economic development and analyses the most current approaches, practices, and recommendations from different countries and regions.

METHODS

In scientific literature, much attention is paid to the transformation of traditional activities and the structure of higher education institutions to the modern realities of the knowledge economy, for example, the emergence of a new paradigm of business education,⁽⁷⁾ the phenomenon of knowledge transfer in the context of the integration of science, education, and business,⁽⁸⁾ the development of a mechanism for the network interaction of representatives of science, business, and education⁽⁹⁾, the role of science, education, and business in the formation of a national innovation system.⁽¹⁰⁾

Moreover, features and possibilities of various forms of implementation of research activities within the framework of integration of representatives of science, education, and business, including the creation of an educational holding,⁽¹¹⁾ the formation of innovation centres,⁽⁶⁾ the opening of an engineering incubator at the university⁽¹²⁾, description of knowledge management processes in the technology park⁽¹³⁾, the use of outsourcing as a tool for vertical integration of the education, science, and business system.⁽¹⁴⁾ The cluster approach as a priority form of this integration, which helps structure a working process and coordinate the activities of these structures into an effective complex, allowing to accelerate scientific and technological progress and introduce innovative developments into production is studied by Dankiv *et al.*⁽¹⁵⁾

However, despite the large number of publications on the integration of science, education, and business, the question of choosing the form of such integration to ensure their competitiveness and development of innovative potential in the market environment remains insufficiently studied, which constitutes the novelty of this research.

The hypothesis of this study is the assumption that the integration of science, education, and business in the form of a scientific and entrepreneurial cluster is the most effective way of promoting innovative entrepreneurial activities because the rapid implementation of ideas in production provides an effective exchange of knowledge, technology and competencies between all participants in this system. Accordingly, the research aim and hypothesis stipulated the use of the following research methods: induction, deduction, scientific abstraction analysis, synthesis, and logical generalization, which helped to determine the role of education in the system of national economy.

Problems of interaction between education and business

The problems of the economy are the inconsistency of the quality of preparation for the quality of jobs. This issue has been repeatedly raised by employers at all levels. We believe that the key element of the integration process of education, science, and business is higher education institutions, especially at the regional level. Universities are the basis for conducting applied scientific research, they play the role of an active intermediary between regional and local producers and authorities, forming a friendly atmosphere for regional economic entities and representatives of the government, and become the centre of attraction of entrepreneurial ideas and innovations.⁽¹⁶⁾

Knowledge plays a central role in the economic development of any subject of activity, it is higher education institutions that accumulate the research, scientific, and pedagogical potential of the region, which allows preparing labour resources with high professional qualifications. However, modern dynamic market conditions require differentiation of higher education, which is to include the ideology of entrepreneurship in the academic environment. This would cultivate not only hard skills, but also soft skills, that is, competencies aimed at generating ideas, formation and teamwork, project management, allowing to increase the competitiveness of graduates in the labour market and provide potential employers with more prepared staff.⁽¹⁷⁾

The development of the regional economy requires the integration of education, business, and government, on the one hand, and the integration of all levels of education (general and professional), on the other one. In this regard, three areas of innovation activity can be distinguished as follows:

- systematic training of personnel, ranging from strategic planning and support to obtaining a finished personnel product;
- development of innovative approaches, methods and techniques of training, methods of cultivating competencies, training quality control, orientation of education results to business needs;
- formation and support of educational projects and training programs demanded by the labour market.

Business already sees a cause for alarm: getting “raw” personnel is unprofitable. Most employers point to such shortcomings of young professionals.⁽¹¹⁾ Thus, there is no stability and reliability. Graduates without work experience do not remain the first workplace for long. They consider it precisely a stage that allows you to earn

their living at first. Meanwhile, employers are in no hurry to invest money, time, efforts in those who may soon quit their job. Young professionals lack responsibility, the established habit of going to work and performing assigned tasks. They do not adhere to the elementary norms of business etiquette. Young people are focused on themselves, and not on business. They do not know how to work for the result, which means achieving the goal, finding ways to overcome obstacles on the way to it, showing independence and perseverance. They do not see the relationship between their work and the result (including financial) of the company. Young people inadequately perceive themselves as employees because they have high expectations of wages, evaluation of their work and the nature of the work they want to do. As a result, they immediately claim leadership positions and the right to solve strategic issues.

Employers who hire graduates assess special knowledge of candidates. Personal qualities of a potential employee (susceptibility, dynamism, desire to learn, willingness to start small), his professional and general cultural competencies are of fundamental importance.⁽¹⁸⁾ There is understanding that different social and economic problems can be effectively solved within education. For example, a private-public partnership in the development of property complexes of educational organizations is the example of cooperation between education and business.

The labour market is unbalanced. For example, there is no objective forecast regarding the needs of the economy in professionals. It is not uncommon to attract unskilled foreign labour. Business still invests little in the development of its own staff. The allocated budget funds for training of highly qualified specialists are also insufficient.⁽¹⁹⁾ Therefore, only mutually beneficial cooperation between private companies and educational institutions can accelerate the development of business and, consequently, the economy of the country. New difficult conditions require fundamentally new mechanisms for regulating the relations between the education system and the labour market. This requires implementing the following improvements:

- develop a regulatory and legal framework for public management of schools and universities;
- provide systematic information and analytical support for the development of public forms of education management;
- develop a mechanism for public examination, public monitoring of the educational system of the region and its interaction with business;
- develop indicators and criteria for the effectiveness of such interaction.

To do this, the following steps should be taken: survey enterprises about their need for graduates of HEIs in the region; monitor student requests and professional plans; create a permanent database of vacancies to inform graduates; organize excursions to enterprises for students; provide the practice and further employment of graduates taking into account the employers' interests.

World experience of interaction between business and education in the context of economic development

The world experience of interaction between business and education in the context of economic development demonstrates the importance of this interaction to create sustainable economic growth. In the advanced countries, there are certain models for forming a partnership between HEIs, business structures, and local authorities. HEIs development strategies are subject to changes that occur in the national priorities of social development of each country and are aimed at increasing the importance of higher education and the formation of its autonomy. This ensures the constant adaptation of higher education systems and scientific research to the modern needs of society.

There is a variety of forms of interaction between HEIs and entrepreneurial structures used in foreign countries. The whole set of forms of interaction between higher education and the business environment can be conditionally divided into two types, depending on the source of the initiative. Table 1 shows the directions of state policy of different countries on relations between HEIs and business.

Figure 1. Directions of state policies of the selected countries on relations between HEIs and business

Country	Integration measures
France	<ul style="list-style-type: none"> • Increasing student places in HEIs, especially in technology. • Creating entities that regulate the collaboration of universities with business, analysing personnel needs and ensuring employer's representatives in each university. • Creating technological laboratories at universities to concentrate on professional technological knowledge. • Supervising the curricula by national departments, which necessarily have representatives of production.
Germany	Ongoing training of graduates that is organized by business and industries in cooperation with universities. These relations are developed between individual universities and business.

Belgium, the Netherlands, Spain, Italy	Enhancing connections with business via programs that adapt the education content to the needs of the economic sectors, introducing on-the-job training.
Mexico	Promoting HEI graduates' employment by targeted training, which is monitored by special commissions, including rectors, industry representatives, and local authorities.
China	Training cross-disciplinary highly qualified professionals is achieved via the following measures: <ul style="list-style-type: none"> • a reduction in the specialties number by half; • universities obtained the right to independently regulate and improve specialties, as a result of which highly specialized disciplines and duplicate specialties were abolished and scarce ones were added; • graduates can choose their workplaces. The futures market for highly qualified professionals was created, within which the China-wide network of employment information forms a data bank of information about what kind of work university graduates are willing to have. Acting as an intermediary, the futures market makes this information available to potential employers, thereby contributing to the meeting of graduates with potential employers and mutual choice.
Japan	Introduction of new interdisciplinary subjects that are necessary for business management in the conditions of the information society. Attracting experts (representatives of large firms and scientists from research institutes) to work at universities, which allows preparing qualified personnel with the high intellectual potential. Thus, a closer linkage of general and specialized training is carried out throughout the entire period of stay in the HEI.

Source: Duna & Kukhar⁽²⁰⁾, Maslov⁽²¹⁾.

The most striking example of such interaction is the creation and development of Silicon Valley in the United States. The combination of historical established traditions and advanced trends in science and education made it possible to turn American universities into powerful research, educational and production complexes that apply modern systems of organization and management that carry out close interaction with business and the state. Approximately 235 US universities belong to the so-called research universities of I and II categories, in which approximately 2/3 of all fundamental and applied research is carried out.⁽²²⁾

The process of expanding the role of HEIs in economic processes has been recently observed in developed European countries. Well-known classical universities of Great Britain, such as Cambridge, the University of York, etc., not only generate scientific research, but also actively introduce business education, disseminate entrepreneurial practice, commercialize research developments, contribute to the development of the region's economy.⁽²³⁾

Adaptation and improvement of the education quality should be supported by a partnership between educational institutions and companies in order to develop students' knowledge and skills necessary for employment in modern conditions. In many countries, there is on-the-job training, which is considered the most effective form of such a partnership. All programs of collaboration between HEIs and business are grounded on the fact that enterprises and organizations are considered not only employers, but also the main generators of knowledge and innovations.

According to Maslov⁽²¹⁾, the cooperation between HEIs and business in different countries is accomplished through the following techniques:

- inclusion of the industry demands in the curricula;
- ongoing improving knowledge of employees;
- professionalization of education;
- reduction of specialties within multidisciplinary training;
- on-the-job-training;
- equipment modernization;
- attracting professionals to teaching;
- programs for joint training of specialists by HEIs and companies;
- employment promotion;
- joint scientific and technical research.

Moreover, Sweden is an example of active interaction between educational institutions, the state and the business community. Here, with the help of state financing, as well as attracting investments from large private companies, the government purposefully created a course of implementation and commercialization of scientific developments. This approach allowed the universities of Sweden to become a kind of core of the largest technology parks, for example, the Ideon technology park at the University of Lund, which develops and implements high-tech products, the Kista Science City technology park at the University of Information Technology, which is called the Silicon Valley of Sweden.^(24, 25)

However, the largest state initiative in the field of cooperation between HEIs and the business environment

is observed in France, Mexico, and China.⁽²⁶⁾ This position can be explained by the fact that France is one of the most developed countries in the modern world, and it is natural that modern approaches to the development of education and economics are reflected in its public policy. Mexico and China are among the most successful developing countries in the last 20 years.⁽²⁷⁾ In both countries, there are processes of serious changes (in China - a change in the economic system, in Mexico - the development of a market economy), which necessitates the adaptation of higher education and the business environment to new economic conditions.⁽²⁸⁾

The isolation of the higher education system and the lack of demand for research developments by the business community in Ukraine contrasts sharply with the practice of the leading countries of the world. This has an extremely negative effect on the authority of Ukrainian universities, explains the insignificant role of the higher education system both in the national innovation system and in the context of individual territories, for example, Sumy region.

World experience shows that small and medium-sized enterprises are an important source of jobs and innovation. The analysis showed that for the development of optimal forms of partnership between HEIs and the business environment, it is necessary to revive the process of communication between business structures and HEIs by creating various platforms (forums, meetings, etc.), and disseminate the best examples of interaction between business and HEIs. Ukraine should actively support this sector by simplifying registration and taxation procedures, providing access to financing and training for entrepreneurs.

Ways of integrated interaction of education and business

First of all, it is necessary to develop the system of education and training for business on the principle “from school to production”. Reliable methods for assessing efficiency and systemic adjustment of such interaction can ensure accelerated economic development of the regions. In this case, the correction involves the following elements: continuous training and professional retraining of educators; joint development of programs for advanced training and professional retraining of education workers, taking into account regional requests and using modern training tools; organization of student support; development of a system of incentives to motivate quality learning.

Interaction of all interested structures, including educational institutions of general, additional and professional education, as well as private enterprises, should be aimed at the following areas:

- increasing the prestige of engineering and technical specialties and popularization of natural science subjects with the appropriate professional orientation of schoolchildren and youth;
- identifying and supporting students professionally oriented to engineering and technical specialties, building their individual educational trajectory from school to production;
- advanced training and professional retraining of education workers taking into account engineering and technical orientation;
- creating the network interaction between educational institutions and enterprises for the development of innovative educational technologies aimed at increasing the prestige of engineering and technical specialties and popularizing the subjects of the natural science cycle.

There are three priorities of education: 1) the development of students' creativity; 2) social integration of schoolchildren in a difficult life situation; 3) support of gifted schoolchildren and students.

For effective interaction and social partnership of education and business, it is necessary to develop an open state-public system, distributing responsibility between the subjects of educational policy and increasing the role of all participants in the educational process; develop normative legal support for interaction and social partnership of education and business. Taking into account the trends in the development of the educational environment, the following priorities are distinguished in such interaction:

- quality training;
- social demand for education results;
- investments in education by business;
- professional training and advanced training of employees of the education system.

It is possible to consider three possible scenarios for the development of partnership between education and business:

1. active and systematic cooperation in all areas of training with an accurately calculated architecture of interaction;
2. sustainable and mutually beneficial corporate partnership in priority areas of training;
3. interaction according to traditional training schemes (practice, internship, scholarships, employment, etc.).

Important aspects of personnel training quality management are certification of specialists of specialized centers, taking into account industry associations, creation of data banks of certified employees. This requires a regional web-portal for staffing the economy, which will become an information platform for interaction between all stakeholders: management bodies, educational institutions, employers, specialists, etc. To carry

out complex work on the initiation, generation, development, testing and promotion of entrepreneurial ideas and innovations, the efforts of all key institutes of education, science and business of the region should be combined, which can be realized by creating a scientific and entrepreneurial cluster in the region.

Clusters as a form of integration of science, education and business are poorly represented in the innovation market, mainly tourist and recreational clusters operate. Educational organizations of higher education are represented as key actors only in IT clusters that implement programs aimed at commercializing information and telecommunication innovations for dynamic growth and increasing the competitiveness of the regional economy. However, in many regions of the country there is no unified cluster of infrastructure innovation.

The creation of a scientific and entrepreneurial cluster in the region will allow integrating fundamental developments, methods for designing technologies, techniques, intellectual products of leading universities, research centers and representatives of entrepreneurship of various levels to intensify the process of commercialization of innovative ideas into gross regional product. The main goal of the interaction of education, science and business within the framework of the scientific and entrepreneurial cluster is the expansion of the information base, the creation of innovations, as a result of which each party has its own specific benefit. Thus, business is focused on making a profit, science is interested in new knowledge, and education is aimed at training qualified workforce.⁽²⁹⁾

The main problem of modern business is the personnel shortage, so the relationship between business and education should be built according to clear rules, in which the business formulates orders for personnel with certain qualifications, and the education system responds to the request with high-quality training of specialists with innovative and entrepreneurial thinking. Therefore, it is so important to develop the interaction and cooperation of educational institutions with business, which will modernize the educational process and its efficiency. One of the forms of such interaction is a joint activity on the development of basic educational programs that allow forming the competencies of students and developing curricula taking into account the requirements of the labor market.

This interaction should begin with a functional analysis that will establish the requirements of employers to the standards of a certain professional industry, which allows taking into account changes in the labour market. Formulation of goals and results of educational activities, competencies and correlation of competencies with a certain set of disciplines studied is included in the main educational program of higher education, which is developed jointly with enterprises. Another way of interaction between education and business is the organization of student practice, as a result of which students get acquainted with the real production process. This scheme of interaction is beneficial to everyone. Another form of effective interaction between the educational organization and business is the target training program, during which an agreement is concluded between the three parties, namely the educational organization, the student and the enterprise. Because of this interaction, the student receives a theoretical knowledge base, but also practical experience in a particular enterprise, and even a place of employment after graduation.

The interaction of science, education and business within the framework of the scientific and entrepreneurial cluster leads to the formation of an innovative environment caused by the growth of the innovative potential of not only educational organizations, but also scientific organizations and business structures. In order to perform new tasks of an innovative system for organizing high-quality educational activities, it is necessary to develop an effective system of incentives for the faculty. The system of motivation of scientists and employees of business structures is different since the main goal of business is to make a profit. Sustainable economic development is associated with the creation and effective use of science, which turns into a source of income, thereby forming an innovative focus through the interaction of education, science and business.

Collaboration of HEIs and business in Ukraine

In Ukraine, the most effective models of partnership between entrepreneurial structures and universities are internship programs which involve enterprises taking on internships of senior HEI students and preparing specialists according to their own requirements. This is beneficial to enterprises since retraining one employee costs them up to \$5,000, while during the internship, students acquire practical skills, go through the process of adaptation, get acquainted with corporate culture, etc. This type of partnership satisfies more the needs of enterprises in a highly skilled workforce than it affects the increase in the level of practical training of HEI students.

Training courses and laboratories from the enterprise allow to solve the problem of low quality of training. For example, HEIs should be provided with the latest equipment and technologies in the format of training centres, laboratories, etc., which expands the circle of students who can acquire knowledge and practical skills with the help of modern equipment. This kind of partnership between HEIs and enterprises has a sufficiently high positive impact on the national education system. Enterprises that implement this type of partnership also take an active part in the following educational activities: the development of training programs, the preparation of teaching aids, the creation of a system for advanced training of teachers, etc.

Apart from that, programs of student competitions organized by the enterprise make it possible to identify and support the most gifted students, stimulate their interest in research work, creativity and independence in solving specific practical situations that specialists will often face in the future. Student competitions have a more indirect impact on the quality of training in general, but they are still an integral and necessary process of education.

Furthermore, professional development of employees and teachers is also essential given the global trend of lifelong education. Therefore, due to the rapid obsolescence of professional skills, enterprises and HEIs should cooperate to eliminate the current imbalance in the labour market between the demand and supply of specialists, when the knowledge and skills of graduates do not meet the requirements of employers.

Moreover, creation of science parks, technology parks and innovation centres contribute to the construction of so-called “incubators of technology business”, i.e., buildings that accommodate small innovative firms. These incubators provide promising entrepreneurs with production facilities, offer a set of services, communication with a local university or research centre, as well as give opportunities to find funds. The creation of technology parks is an effective mechanism for the economic recovery from the crisis because the result of their activities is economically beneficial for regions in terms of creating new jobs.

The functions of innovation centres cover different stages of the innovation process, especially stimulating the transition from the experimental phase to the commercial production. This does not always require the creation of new enterprises. On the contrary, innovation centres assist entrepreneurial researchers in license sales for a new product to existing manufacturers. Other models of interaction are excursions to the enterprise, targeted contributions to the development of HEIs, the publication of textbooks and other educational literature, support for research, the preparation of thesis papers, etc.

Assessing the existing system of interaction between enterprises and HEIs, experts are divided into two groups: those who are satisfied with the existing system of interaction and evaluate it as quite effective (41 %), and those who believe that this system can be more productive (47 %).⁽⁴⁾ The main reasons for reducing the effectiveness of this cooperation are as follows:

- reduction of cooperation programs in connection with the war;
- the high degree of responsibility of work;
- non-compliance of HEIs educational programs with the demands of the enterprise;
- low quality of young specialists' training;
- difficulty in determining the graduate's qualification in a two-level education system;
- the lack of motivation of graduates to work in the industrial enterprises due to low wages.⁽²¹⁾

The resolution of these problems cannot rely solely on the initiatives of HEIs. Consequently, it is necessary for the government, businesses, and the HEIs to jointly identify stakeholders invested in preparing skilled professionals who would be eager to contribute to production modernization. Taking into account that the government's general aim to carry out a radical modernization of domestic production, the main objective is to establish incentives for local businesses that foster the adoption of the latest technological innovations.⁽³⁾

In this case, the business becomes interested in attracting HEI scientists to create the latest technologies. Professors, engaged in research activities, will involve students in the production of an innovative devices. As a result, in the process of training in higher education, the future specialist will receive not only knowledge, but also receives the skills of rationalization and inventive work. Consequently, HEIs graduates become the social capital that makes them in demand in the modern labour market. The implementation of these proposals to increase the efficiency of collaboration between HEIs and the labour market will undoubtedly contribute to enhancing the partnerships between HEIs and business.

CONCLUSIONS

Business is defined as the engine of economic growth, capable of creating new jobs, attracting investment and promoting innovation. World experience shows that supporting small and medium-sized businesses, attracting foreign investments and promoting innovation are crucial for sustainable economic development.

Thus, the cooperation of science, education and business is the main component of the development of an innovative economy aimed at training specialists and meeting the needs of employers in the qualified personnel. The growing number of industrial and technological infrastructure, such as technology parks, scientific and technological platforms, science cities, business incubators, confirms the positive results of interaction of education, science and business, which contributes to the introduction of innovations in production.

To increase the level of competitiveness of the regional economy, it is necessary to improve the integration of science, education and business by creating a scientific and entrepreneurial cluster because the economic development requires constant updating of knowledge and competencies. At the same time, the development of entrepreneurial thinking among students is impossible without close connection with all participants in regional economic processes. The integration of science, education and business implies a combination of scientific research and the practical implementation of their results. For the successful development of the scientific

and entrepreneurial cluster, state support for innovative processes in the regions is needed. To achieve this, organizational and methodological mechanism for the interaction of representatives of education, science and business should be developed.

Education determines the quality of the workforce and provides the necessary skills and knowledge to the graduates to participate in the global labour market. Accordingly, Ukraine should invest in quality education and training, providing access to modern training programs and courses. The implementation of these measures for interaction between education and business will facilitate the following results:

1. Regulatory and legal support:
 - preserve the best domestic traditions of free and accessible education;
 - improve the regulatory legal framework for the development of partnership between education and business.
2. Resourcing:
 - create a unified information space of education results and business requests;
 - improve the material and technical equipment of HEIs;
 - create conditions for early profiling of schoolchildren with the help of enterprises.
3. Ensuring the quality and continuity of education from the early stages to graduation from HEIs:
 - training in accordance with the demand formulated by the business;
 - involving schoolchildren in activities at the enterprises before the vacation period;
 - identifying prospects and development of partnership tools to provide business with the qualified personnel;
 - creating a system of cooperation between education and business to establish a new corporate governance model based on the principles of responsibility of business, the state, and education;
 - developing methods for independent assessment of the quality of training and qualification with the direct participation of employers.

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