

International Cooperation Between Universities And Business As A Condition For Raising Human Development Level

*Alena Bahdanava, Marina Gaydova, Sviatlana Izmailovich, Elvira Voronko,, and Elena Kostuchenko**

Euphrosyne Polotskaya State University of Polotsk, Novopolotsk, Belarus

Abstract. One of the main indicators of human development is the integral indicator Human Development Index, which includes an assessment of the quality and standard of living of the population, and also takes into account the level of educational development of the population. The authors identified the development of network interaction between universities and business at the international level as one of the ways to increase the level of this indicator. The article analyzes the indicators of life expectancy, the level of income of the population, as well as some macroeconomic indicators of the six neighboring countries. Conclusions are drawn about a possible increase in the Human Development Index indicator based on improving the network interaction between the higher education system and the real sector of the economy, and one of the factors for enhancing network interaction in the labor market is labor mobility, and at the level of macroeconomic development - international labor migration. In addition, the authors proposed a number of measures to strengthen the tightness of the network interaction between the customers of personnel and the educational services market, and indicated the forms of such interaction at the international and domestic level.

Keywords: Human Development, Universities, International Cooperation, Business, Clusters

1 Introduction

Economic development around the world is under the influence of globalization and integration. The issues of international cooperation at all levels of the economic system and in various sectors of the economy are becoming topical. Of particular importance are the issues of interaction between border countries. In this regard, countries are striving to improve their indicators characterizing the level of development, including the level of human development. Human development issues have been priorities for analysis in the studies of international organizations (United Nations, World Bank) for over 30 years. Among the authors who paid significant scientific attention to the human development index in various countries, we note the scientific works of such authors as: R.I. Kapeliushnikov [1], J. Coleman [2], R. Lucas [3], K. Griffin, J. Knight [4] and others.

In this research, the authors attempted to analyze the border countries in terms of deepening

* Corresponding author: e.kostuchenko@psu.by

international cooperation between universities and businesses, identify problem areas and identify areas of international cooperation in the context of the development of digital technologies and the coronavirus pandemic. Neighboring countries with common borders with the Republic of Belarus were chosen as objects of study: the Republic of Belarus, Russia, Ukraine, Lithuania, Latvia, Poland. This choice simplifies the process of exchanging knowledge, technologies and innovations and is justified by the territorial proximity, developed transport and logistics communications of neighboring countries.

Analysis of the dynamics of the indicators of the human potential index in 2000-2019 in the studied countries showed that, in general, almost all countries demonstrate an improvement in this indicator by 2019. Latvia, Lithuania and Russia by 2019 compared to 2000 have risen in the ranking by 16, 15 and 12 positions, respectively. Poland during the analyzed period occupies positions within 35-41 places in the rating. In the period 2010-2015, Ukraine lost 15 positions in the ranking of the human development index, which testified to the negative consequences of economic transformations and the consequences of the internal economic crisis. The country managed to return 10 positions in the next 4 years, being in the 74th place in 2019 among 189 states and jurisdictions. From 2005 to 2019, the Republic of Belarus changed its position on this indicator by 11 positions, having risen from 64th to 53rd place, which indicates the positive dynamics of socio-economic development in the country. Consequently, given that the human development index is an integral indicator, where significant importance is given to the development of education, the level of income of the population, life expectancy, this study is significant. According to the authors, the presented study made it possible to identify existing problems that negatively affect the level of the human development index. The directions of increasing the level of the human development index are determined according to the results of the study.

The issues of interaction between universities and business are the subject of research by scientists from different countries.

L. Bannikova, L. Boronina, A. Baliarov in their research proved «that the activity and specific directions of cooperation between universities and industry in the field of scientific research and training of personnel largely depends on the innovative (technological) strategy of enterprises» [5]. Thus, we see that collaboration between universities and industry is increasingly seen as a means to enhance innovation through knowledge sharing [6].

Because collaboration between universities and industry is about knowledge and technology transfer, this collaboration is an extremely important area of study of the global economy that helps companies become more competitive [7]. Industry-University Cooperation (IUC) has a long tradition in many countries around the world. An integrated analysis of the state of the literature in the field of cooperation between universities and industry is given by Samuel Ankra, Omar al-Tabba. In their researches, R. Rybnicek and R. Königgruber systematized the reasons for cooperation between universities and business, among which are: profit from highly qualified human resources; access to technology and knowledge; use of expensive research infrastructure [8].

De Wit-de Vries, Dolfsma, van der Windt & Gerkema M. P consider the relevance of cooperation between business and universities in the field of knowledge transfer as a concept for the development of theory in relation to academic involvement [9]. The key factors that enable collaborative innovation between industry and universities are summarized in K. Sjöö and T. Hellström [10].

Barriers to higher education-industry (HIC) collaboration have also been extensively studied and presented by Alunurm, Roigas, and Varblane [11].

S. Pittayasophon and P. Intarakumnerd, using the example of Japan and Thailand, consider the experience of university-industry cooperation and the study of the influence of university types on the methods and size of collaborating firms [12].

J. Han explores the propensity for patents in relation to the commercialization of innovation

activities as a result of cooperation between universities and regional small and medium-sized enterprises (SMEs) [13].

The results of the research by D. Garcia-Perez-de-Lema, A. Madrid-Guijarro, and D.P. Martin on the impact of different management styles of universities and businesses show that only the contractual relationship between the university and the firm has a direct and significant impact on innovation, while relational activity promotes and supports contractual activity [14]. The issues of trust in cooperation between business and the university were also considered by E. Bellini, G. Piroli and L. Pennacchio [15].

A significant increase in publications reflecting various aspects of cooperation between universities and business indicates the relevance of the study presented by the authors. The innovativeness of the approach proposed by the authors lies in the fact that publications on this topic do not consider the peculiarities of cooperation between universities and businesses in geographically close countries, which have an advantage due to closeness of transport and logistics links.

2 Materials and Methods

The aim of the article is to justify the need for international cooperation of universities and businesses to improve human development.

Objectives of the study: to identify factors affecting the level of human development; to analyze the rating and the human development index; to identify problem areas and propose areas of activation and possible mechanism of international cooperation between universities and business.

The paper uses quantitative research design. In the process of research the methods of comparative analysis, analysis of dynamics and structure were used.

To substantiate the factors analyzed and the conclusions on the results of the study, objective and reliable secondary data of the Human Development Report, data of the International Labor Organization, the Organization for Economic Cooperation and Development were used.

3 Results. Analysis of Rating and Human Development Index of Border Territories

3.1 Dynamics of the Human Development Index

The population of the country and its capabilities are considered as criteria for analyzing the development of the respective territories in recent years. This is due to the fact that countries with the same level of per capita income often demonstrate different achievements in the field of human development, the level of which is determined using the Human Development Index (HDI). For the analysis of the level of human development, countries were selected that are neighbors of the Republic of Belarus - Poland, Russia, Lithuania, Ukraine and Latvia. The dynamics of the growth of the human development index in the analyzed countries over the past 19 years is shown in Figure 1 [16].

As evidenced by the data presented in Figure 1, the lowest average annual growth rates of the human development index in 2000 in relation to 1990 are observed in Ukraine and Russia. Note the rather high growth rates of this indicator in the Republic of Belarus in 2010 compared to 2000. You can notice a slowdown in the growth rate of the human development index for all countries in 2019. This tendency is most noticeable for Belarus, Ukraine and Latvia.

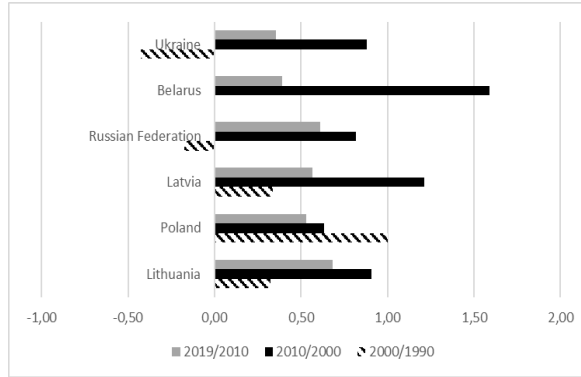


Fig. 1. Dynamics of the average annual growth rate of financial development in 1990-2019.
Source: Own development based on the source [16]

3.2 Impact of Learning, Income and Life Expectancy on Human Development

The indicator shown in Figure 1 is calculated as the geometric mean of normalized indices for key parameters of human development (long and healthy life, knowledge and a decent standard of living). Let us analyze what effect the change in the education index and GDP growth had on its level.

The average annual growth of the Education Index is shown in Figure 2. The Education Index is the highest at the beginning of the 21st century in Belarus, although since 2011 we have seen a significant slowdown in the growth of this indicator. Note that there is a downward trend in the growth rate of this indicator in 2019 compared to 2010 in almost all countries, except Russia. It can also be said that during this period the growth rate of the education index is somewhat lower than the growth rate of the human development index.

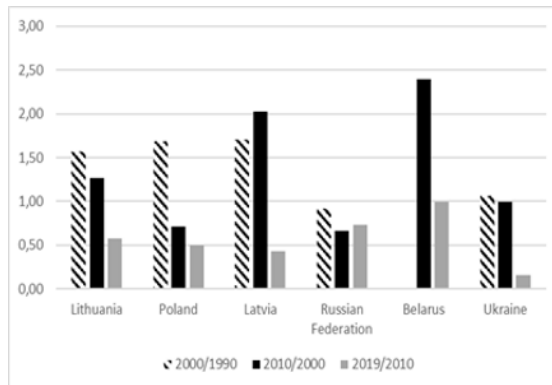


Fig. 2. Dynamics of the average annual growth of the education index.
Source: Own development based on the source [16]

Figure 3 shows the change in the rate of increase in life expectancy in the analyzed countries.

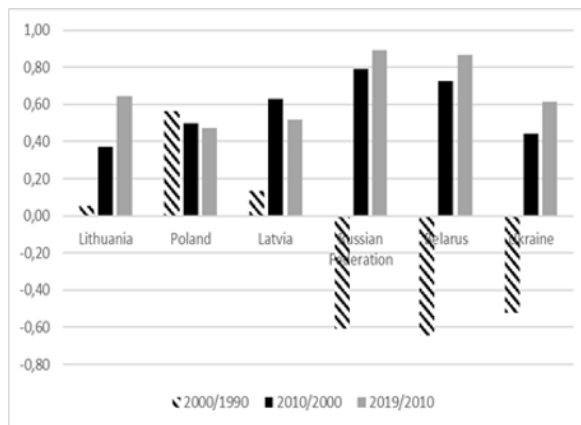


Fig. 3. Dynamics of the average annual increase in life expectancy.

Source: Own development based on the source [16]

As for the data presented in Figure 3, Lithuania, Russia, Belarus and Ukraine demonstrate a systematic increase and improvement in the quality of life, which is positively reflected in the level of human development as a whole. In Latvia and Poland, the growth rates in the analyzed period are decreasing.

The dynamics of the Income index growth has a downward trend in all countries in the analyzed period, Figure 4. A significant decrease was seen in Belarus, Russia and Ukraine.

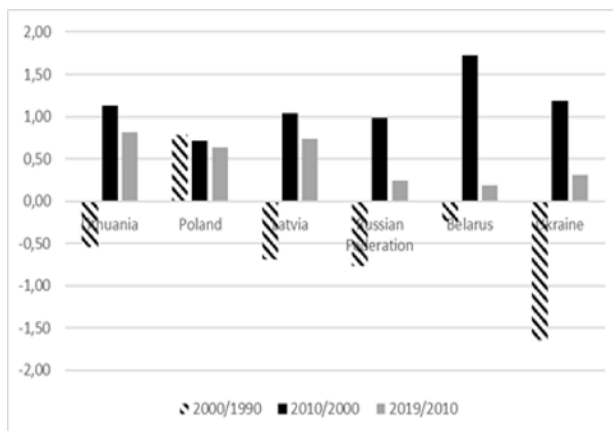


Fig. 4. Dynamics of the growth rate of the Income Index.

Source: Own development based on the source [16]

Analyzing government spending on education, we note that Ukraine and Belarus are leading in percentage terms Government expenditure on education, Table 1, which include Current, capital and transfer spending on education, expressed as a percentage of GDP.

Table 1. Education achievements.

Country	Population with at least some secondary education, (% ages 25 and older)	Survival rate to the last grade of lower secondary general education, (%)	Government expenditure on education, (% of GDP)
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	2015-2019	2008-2018	2013-2018
Lithuania	95,9	91	4,0
Poland	85,8	99	4,6
Latvia	100	98	4,7
Russian Federation	95,9	98	3,7
Belarus	92,2	99	4,8
Ukraine	94,6	99	5,4

Source: Own development based on the source [17]

However, one must also take into account the real value of GDP per capita, which is reflected in Table 2, and from which we see that the Gross national income (GNI) per capita (constant 2017 PPP \$) in Ukraine and Belarus is significantly lower than that of neighboring countries.

Table 2. Gross national income (GNI) per capita.

Country	1990	2000	2010	2019
Lithuania	18130	13671	23850	35799
Poland	11137	16168	23212	31623
Latvia	18332	12841	21167	30282
Russian Federation	21514	14229	23256	26157
Belarus	8891	8024	16988	18546
Ukraine	16182	7025	11608	13216

Source: Own development based on the source [16]

The HDI uses the logarithm of income, to reflect the diminishing importance of income with increasing GNI.

Thus, the results of the analysis of the human development index and its constituent indices indicate that the level and quality of education have a significant impact on the level of human development of the country as a whole. Therefore, one of the key tasks of human development is to continuously improve the quality and efficiency of the education system.

4 Discussion. Directions for Increasing the Level of Human Development by Improving the Education System

4.1 Qualification of Labor Force and Directions of its Increase

The ratio of employment to population, skill-level employment in the analyzed countries is reflected in Table 3, the data of which show a low level of employment in the analyzed countries (International Labour Organization, 2021).

Table 3. Work and employment.

Country	Employment to population ratio (% ages 15 and older)	Skill-level employment. High-skill to low-skill ratio (employment ratio)
	2019	2019
Lithuania	57,7	4,63
Poland	54,7	6,95
Latvia	57,4	3,27

Russian Federation	59,0	5,47
Belarus	61,2	5,11
Ukraine	49,3	1,97

Source: Own development based on the source [17]

Skill-level employment reflects the share of a highly skilled labor force of relatively low-skilled labor among those employed in the economy.

Based on the presented analysis, it can be concluded that in the Republic of Belarus in the structure of the population, among the analyzed countries, the largest share is occupied by the population over 15 years old. An analysis of the data on the employment rate shows that for one hundred people of a low-skilled labor force there is an average of 5 people of a highly skilled labor force. Among the analyzed countries, the Republic of Belarus takes the 3rd place, behind Poland and the Russian Federation. However, in Ukraine this coefficient is much lower. In Ukraine, there are on average 2 highly skilled labor force per 100 people of low-skilled labor force.

One of the significant factors that influenced the current trend is the international labor migration of highly skilled labor. In 2014-2016, unfavorable socio-economic conditions developed in Ukraine as a result of the military conflict and unfavorable internal political situation, which contributed to the departure of highly qualified specialists to various countries, including Poland, the Republic of Belarus, the Russian Federation, etc. , in Ukraine, since 2017, there has been a liberalization of the visa-free regime for citizens of Ukraine to the countries of the European Union, which also contributes to the desire of emigration flows from Ukraine, including highly skilled labor, which is more abundant in contrast to low-skilled labor.

The movement of highly qualified specialists, their mobility makes it possible for the labor force to acquire new knowledge, skills, experience in a shorter time frame than in the absence of academic and migration mobility. In this regard, the issues of migration of highly qualified labor force are being actualized.

By the Organization for Economic Co-operation and Development (OECD), highly educated or highly skilled migrants refers to a foreign-born workforce with a completed ISCED level 5–6. In other words, these are migrants who have received a university or vocational education [18].

The concept of a highly skilled workforce is most often worked out for foreign, rather than domestic, specialists of any country.

A highly educated worker is an employee who has successfully completed training in secondary special or bachelor's programs. Of course, in order to be fully recognized as a highly qualified worker abroad, a person will need to comply with other local legislative conditions, but the presence of an appropriate confirmed level of education can be considered the most important requirement for a migrant.

Thus, there are several options for increasing the highly qualified labor force in the country's economic system: by means of enhancing migration mobility, including as a result of network interaction in the labor market between universities and business, and improving the quality of education.

4.2 Improving the Quality of Education through Interactions with Business

Analyzing the issues of interaction between education and business, Alunurm, Roigas, Varblane concluded «that small export-oriented firms may not find suitable competences in higher education institutions and are therefore less likely to engage in higher education-industry cooperation. Larger companies do engage in cooperation, but find strategic differences (goals, stances, time allocated) to be significant issues in cooperation» [11].

The situation when university study programs do not fully meet the requirements of the

modern labour market, resulting in lower quality of education, might stem from the following reasons: a lack of communication between universities and employers; a lack of financial support and problems with the proper educational resources and infrastructure of universities (specialized training facilities); and a lack of access to specialized internships for students.

One of the ways to improve the quality of education should be the active participation of the customer (employing companies) in the process of training future specialists. This is one of the necessary and indispensable conditions for the development of a modern higher education system.

This paper suggests that closer cooperation of universities and representatives of the labour market in the form of cluster interaction might be an efficient solution to the problem of imbalance between employers' needs and employees' capabilities.

On the one hand, a cluster means closer cooperation and interconnection between all its participants. In a cluster, a university usually plays a role of a research and educational centre [19]. For universities, being part of a cluster would mean a continuous and systemic dialogue (in a form of cluster meetings or specialized cluster projects) with the real sector of the economy. In the course of interaction, the labour market can identify its needs and provide universities with this information; in turn, universities can adjust their study programs and, thus, new demand of the labour market would be satisfied effectively.

On the other hand, clusters can increase technical capabilities of universities by providing additional financial and information support for creation and functioning of specialized study facilities – study laboratories (chemical, physical, medical, robot-technical, etc.) and computer classes with specialized software or useful simulations. Firstly, universities can consult with labour market representatives within a cluster and examine their specific needs for particular skills, experience, and competencies of students to design specialized study facilities properly. Secondly, universities may obtain additional funding for creating specialized study facilities. Funding might be, thus, obtained in two different ways: using special cluster project funding [20] or getting direct financial support from individual interested parties (firms, organizations, institutions). As a result, specialized study facilities will provide future graduates with valuable skills, experience, and competencies, making them a better match for modern employers' requirements and, thus, more competitive.

The inclusion of customers is possible already at the initial stage of training young people in an educational institution. The formation of a databank of gifted youth opens up opportunities for employing companies to attract the most successful students to innovative and research projects in accordance with the interests of the customer. In the learning process, you can use the following forms of interaction between employing companies and educational institutions:

- creation of corporate departments on the basis of customer companies, while training is conducted by both university teachers and practitioners;
- internships at enterprises with the possibility of subsequent employment. This allows students to quickly adapt, study the specifics of working with specific technologies, get acquainted with real production tasks, thus theoretical education at the university is supported by a practical base and becomes a competitive advantage of a young specialist;
- organization of research and production sites for the exchange of best practices. Educational institutions can use the annual scientific and practical conferences, satisfying mutual interest. Business representatives participate in the conference with their real tasks and problems that the educational institution is trying to solve on the basis of its laboratories and centers. Students are involved in this work, who can then use the results obtained in their course and diploma projects. In addition, a student who has immersed himself in the subject goes on to work in this particular business. Conferences as a symbiosis of science and practice with the involvement of practicing employers have significant potential for educational institutions, since they provide an opportunity to hear from the source what technologies and innovations are needed in production and what needs to be paid attention

- to when training personnel for business;
- organization of the passage of educational, industrial and pre-diploma internships for students in employing companies with their unconditional participation in the development of internship programs. This will allow not only to acquaint students with the field of their future professional activities, to consolidate theoretical knowledge, but also to obtain practical professional skills in specialties and areas of study;
 - participation of employers in the formation of curricula and training programs for specialists. This actualizes the competencies of students required by the customers of the personnel;
 - training teachers in leading practices on the basis of employing companies and modern educational technologies in order to realize that a scientific research produced by a specialist is goods for the market, an object of entrepreneurial activity, recognition that a qualitatively new educational service that meets modern requirements is required on the educational services market the labor market, provided with appropriate educational technologies and giving in-demand competencies;
 - synchronization of the mission of the company and the university to realize the possibilities of publishing scientific research without violating the company's policy to protect its commercial interests;
 - increasing professionalism in the interaction of business and education, namely: a convenient website of the university, developed in accordance with the needs of those business representatives who turn to it, the quality of responses to initial inquiries, the creation of a single database, which can be accessed from anywhere in the university , if necessary, for example, from the department for work with alumni, the department for work with business partners, creating and maintaining a positive image of the university as a reliable and responsible partner for business.

4.3 Impact of the Covid-19 Pandemic on Human Development and Directions to Reduce its Negative Impact

The slowdown in HDI growth in 2019 was caused, among other things, by the Covid-19 pandemic. For example, a report from the European Association for International Education (EAIE), based on responses from 805 respondents working in 38 countries in the field of European higher education, expresses concern about the short-term and long-term impact of the Covid-19 pandemic in various areas, including crisis response. long-term planning, partner management, student mobility, scientific and technological development management and effective communication with relevant stakeholders [21].

Modern communication technologies such as the Internet have raised the exchange of ideas and the democratization of production and access to knowledge to unprecedented heights. During the Covid-19 pandemic, digital technology proved essential for work, education, healthcare and communication [22]. In these conditions, the forms of interaction between companies and universities appear to us as follows:

- creating a platform for personalized lifelong learning: the ability to combine a qualitatively new set of participants - from the students themselves, professors and architects of learning tracks to videographers, artificial intelligence engineers and data analysts. Such ecosystems include not only educational programs, but also mentoring, coaching, microlearning, project work and constant p2p networking [23];
- activation of virtual research networks, especially in the category of young researchers, strengthening of cooperation in the placement of research data and databases for joint use, redistribution of experimental work;
- transfer of partnership to an online format: new forms of interaction in a digital environment to maintain constant communication (joint webinars, online cases), search for optimal

- solutions for all parties, develop crisis plans together with partner organizations;
- increased virtual mobility.

A positive development in the provision of educational services is a significant increase in the number of organizations using the Internet for professional training of employees.

In order to train specialists in the areas most in demand on the labor market, the Ministry of Labor and Social Protection of the Republic of Belarus proposes to create and implement an information system for forecasting the labor market in 2023. According to the ministry, the creation of such a system will allow citizens to track current professions in the short and long term, which should lead to an unemployment rate of less than 4.2%. The introduction of such a system can also have a positive effect on the level of retraining of citizens and a wider spread of the idea of lifelong education throughout life, as well as increase the overall level of human development.

Networking in the context of the development of digitalization is already having a significant impact on the economy in general and on the labor market in particular. Given the speed of emergence of new digital technologies and the frequency with which they replace each other, it can be assumed that in the future the labor market will continue to function directly under the influence of digitalization, as well as network interaction, and deepening of connections between the structural elements of network interaction. In this regard, it is possible to predict various scenarios for the development of the labor market in the context of the development of network cooperation and deepening digitalization.

The first scenario, the optimistic one, assumes that networking and digitalization will have a largely positive impact on the labor market and industrial relations. The decrease in the need for low-skilled workers, whose functions will be performed by robots, will be offset by an increase in the need for operators to control robots, as well as for creative personnel involved in the design, development and maintenance of production. This means that digitalization will lead to the emergence of a large number of new professions. Digitalization will also contribute to the training and professional development of workers, and the use of digital technologies in training will help not only increase its effectiveness, but also provide pupils and students with the necessary digital skills that employers will require of them. Recruitment will be simplified through the use of specialized online platforms, which, accordingly, will simplify the job search process for job seekers. More and more specialists will have the opportunity to work remotely, which will simplify the search for work for applicants from small settlements and will lead to more efficient use of working time, allowing them to combine several types of employment.

The following activities can contribute to the implementation of this scenario:

- prompt reaction of the education system to changes in the digital environment, and adjusting the existing training program, taking into account these changes;
- improving the system of retraining of personnel, especially those who lose jobs due to automation;
- assistance in adapting to the digitalization of the labor market for those categories of the population who are least ready for this phenomenon (elderly people, low-skilled workers);
- improving legislation in the field of regulating flexible forms of employment, as well as adjusting the remuneration system for workers who carry out their activities remotely, etc.

The second scenario is pessimistic and is based on the possible negative consequences of the development of network interaction and the digitalization of the labor market. The most real and serious phenomenon that this development scenario will lead to is the large-scale automation of jobs, which will lead to an increase in unemployment. In addition, if the COVID-19 pandemic does not end in the next few years, it will lead to even more massive staff layoffs around the world. Transferring employees to remote work without proper adaptation can lead to negative psychological consequences, as a result of which the employee ceases to feel like a part of the team, as well as to a loss of motivation and a decrease in efficiency and performance. People who are not ready to deepen networking and digitalization of the labor

market will also suffer. This applies to both employers who do not implement digital technologies in the process of interacting with employees, and personnel who do not have the necessary digital competencies and are not ready to constantly improve their qualifications and expand their skills. Applicants, who have not adapted to changes in the required competencies, as well as to the digitalization of the job search process itself, will also be negatively affected.

Below we list the conditions under which the occurrence of such a scenario is most likely:

- inconsistency of the education system with the demand for specialists on the labor market;
- lack of measures to adapt employees when transferring them to a remote employment mode;
- the unwillingness of employers to invest in improving the qualifications of their employees, as well as to introduce digital technologies into the workflow;
- lack of measures to adapt personnel who are losing jobs due to automation.

4.4 Improving the Quality of Education by Increasing International Cooperation

One of the directions of improving the quality of education, as well as types of international cooperation in the field of higher education, is interuniversity cooperation. The study by S. Barov, M. Egorova, D. Huang confirms the fact that «the development of scientific and educational cooperation of WUN universities contributes to the formation of a unified global education system bringing together national education systems and reorienting national universities to scientific work in the framework of supranational educational structures, which opens up the prospect of expanding their activities and enables the implementation of large-scale research projects» [24].

Establishing and promoting the "brand" of universities, international recognition of diplomas, improving the quality of education, ensuring the academic mobility of students and faculty are integral elements of such cooperation.

An example of international cooperation is the international consortium of educational institutions in Poland, Lithuania, Belarus, Ukraine and Russia – the Border Universities Network (FNU), created in 2013. The organizer and coordinator of cooperation is the University of Bialystok, and its partners are the universities of Baranovichi, Brest, Voronezh, Grodno, Kaliningrad, Kaunas, Lvov, Ternopil. Ten universities signed an agreement to create a network. Currently, the project involves three universities from the Republic of Belarus and the Russian Federation, one university in Ukraine, and one university in Poland [25]. Such projects contribute to the joint positioning of universities in the international arena, strengthen the interaction of universities at the level of joint educational programs and research, and increase the image and prestige of the education system [26].

5 Conclusion

As a result of the research, the authors came to the conclusion that the level and quality of education have a significant impact on the human development index. To increase the innovativeness of both the education system and business, it is necessary to expand and bring cooperation between universities and business to a new level. This will help to increase the practice orientation, demand, innovative potential and professional competence of future specialists.

The research of various forms of cooperation between business and universities allowed the authors to determine that for neighboring countries (where closer industrial, research and social ties are possible) the basis for the development of international cooperation is:

1) at international level:

- membership in specialized global and regional international organizations;
- conclusion of bilateral and multilateral international agreements in the field of higher education;
- the creation of the "Alliance for Transnational Education" – an international association that includes business organizations, higher educational institutions and government agencies

that are involved in quality assurance, accreditation and certification of university programs offered outside their country;

- mutual recognition of existing training programs;
 - patenting and commercialization of new technologies created within the framework of cooperation (Han, 2017);
 - integration of developed educational innovative technologies.
- 2) at the level of higher educational institutions:
- conclusion of agreements on interuniversity cooperation, including the use of twin programs, when agreements are concluded between higher educational institutions of different countries to offer joint training programs;
 - vertical and horizontal academic mobility (both real and virtual);
 - network organization of activities, namely - the creation of university networks, the implementation of joint master's programs;
 - creation of joint universities;
 - creation of joint faculties;
 - use of franchises [27]: under a franchise agreement, a foreign university issues a local educational institution permission to use its educational programs and issue its diplomas on mutually agreed terms;
 - implantation of educational innovations.

Thus, international cooperation in higher education is aimed, first of all, at the integration of educational services of higher educational institutions into the global, European and regional space, at increasing the competitiveness of not only universities, but also national systems of higher education in general, which has a positive effect on the level human development. The network enables to maintain and enhance innovative, multidisciplinary research that addresses global challenges.

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