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## **PUBLIC-PRIVATE PARTNERSHIP IN EDUCATION AS A PREREQUISITE FOR THE GROWTH OF REGIONAL LABOR MARKETS: ANALYSIS OF FOREIGN EXPERIENCE**

**Abstract.** The aim of the article is to study the best foreign practices and models of public-private partnership in the field of vocational and higher education, identify opportunities for their adaptation to Ukrainian realities and develop recommendations for productive use of foreign experience in this area.

The theoretical significance of the article is that it is analyzed the semantic content of the basic concepts related to public-private partnership in the foreign scientific space; it is identified the prerequisites for the development of public-private partnership in vocational education abroad (at the national, institutional (vocational education institution), production (enterprise) levels; it is analyzed the challenges to vocational education and training in foreign countries which the public-private partnership is aimed to solve; criteria for typification of partnerships (number of participants, areas of partnership, integrated criterion «project financing — provision of educational services», integrated criterion «breadth of partnership and depth of interaction between partners», integrated criterion «degree of coordination of interaction — volume of investment») are identified; the author's typology of partnerships in the field of education in foreign countries is substantiated. The practical significance of the article is that the authors developed recommendations for deepening public-private partnership in vocational and higher education institutions of Ukraine based on the study of foreign experience, suggested directions for its further development in Ukraine.

It is determined that in the foreign conceptual and terminological field, in addition to the concept of «public-private partnership» uses a number of concepts (Private Finance Initiative, PFI) (UK), Service Provision Project (SPP) (Mexico), Alternative Financing and Procurement (Canada), Private Sector Participation (PSP) (World Bank). The common essential features of these concepts

are singled out: cooperation of different stakeholders, complexity of the purpose, focus on the result, parity of responsibility, long-term nature of interaction, formality of relations.

Criteria for distinguishing types of partnerships in foreign practice are proposed: number of participants, areas of partnership, integrated criterion «project financing — provision of educational services», integrated criterion «breadth of partnership and depth of interaction between partners», integrated criterion «degree of coordination of interaction — volume of investment». The peculiarities of the types of partnerships in vocational education, which were singled out on the basis of the criteria proposed by the authors, are characterized: bilateral and multilateral; infrastructure, private management of public institutions, outsourcing of educational services, outsourcing of non-educational services, innovation and research partnerships, vouchers and subsidies; private initiatives, sponsorship, mixed projects, government programs; broad partnership, in-depth partnership; liberal, solidarity, paternalistic, consortium types of partnerships.

Based on the analysis of the best practices of public-private partnership, the probable effective directions of public-private partnership in the field of vocational and higher education in Ukraine were singled out: strengthening the participation of companies in the processes of professional training; outlining a clear and concise division of responsibilities in the partnership; development of national standards of vocational education; gradual introduction of elements of dual education; promoting the prestige of vocational education as an attractive alternative to academic education; facilitating the learning trajectory between vocational and higher education; forecasting skills.

It was developed recommendations for the development of public-private partnership in the field of vocational and higher education in Ukraine in the context of: formalization of interaction (conclusion of agreements and memorandums of partnership), management of interaction (establishment of qualitative and quantitative indicators for monitoring the activities of private providers and vocational education institutions; periodic reviews of vocational education institutions to bring them in line with the standards set in the contract), development of partnership effectiveness (clear criteria for quality and effectiveness), technologicalization of interaction (in particular, use of algorithm of interaction between vocational education institutions and partners for public-private interaction initiatives).

The need to study such models of partnerships in the field of education as the Chambers of Commerce and Industry in Germany, the Sectoral Council for Industrial Training (Canada), centers of excellence in vocational education (Netherlands), industrial centers or clusters (Tuscany in Italy and Baden-Württemberg in Germany), the National Skill Development Corporation (India) was actualized.

**Keywords:** public-private partnership, vocational education, education, foreign experience, best practices, efficiency, effectiveness.

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## **ПУБЛІЧНО-ПРИВАТНЕ ПАРТНЕРСТВО В ОСВІТІ ЯК ПЕРЕДУМОВА ЗРОСТАННЯ РЕГІОНАЛЬНИХ РИНКІВ ПРАЦІ: АНАЛІЗ ЗАРУБІЖНОГО ДОСВІДУ**

**Анотація.** Мета статті — є вивчення кращих зарубіжних практик і моделей розбудови публічно-приватного партнерства у сфері професійної та академічної освіти як передумови зростання регіональних ринків праці, виявлення можливостей їх адаптації до українських реалій та обґрунтування рекомендацій щодо продуктивного використання зарубіжного досвіду в цій царині.

Теоретичне значення статті полягає в тому, що в ній проаналізовано зміст основних понять, пов'язаних із публічно-приватним партнерством, у зарубіжному науковому просторі, у контексті семантики; визначено передумови розвитку публічно-приватного партнерства в освіті за кордоном [на національному, інституційному (рівні закладу)], виробничому (рівні підприємства); проаналізовано виклики перед сферою професійної освіти і навчання у країнах світу, на вирішення яких спрямоване публічно-приватне партнерство; визначено критерії типізації партнерств (напрями партнерства, інтегрований критерій «фінасування проєктів – надання освітніх послуг», інтегрований критерій «широта охоплення партнерства та глибина взаємодії між партнерами», кількість учасників, інтегрований критерій «ступінь координації взаємодії — обсяг інвестування»); запропоновано авторську типологію партнерств у сфері освіти в зарубіжних країнах. Практичне значення статті полягає в тому, що на основі вивчення зарубіжного досвіду запропоновано рекомендації щодо поглиблення публічно-приватного партнерства в закладах професійної та вищої освіти України; запропоновано перспективні напрями розвитку публічно-приватного партнерства в Україні.

Визначено, що в зарубіжному поняттєво-термінологічному полі, крім поняття «публічно-приватне партнерство», використовується низка понять (Private Finance Initiative, PFI) (Великобританія), «проєкт надання послуг» (Service Provision Project, SPP) (Мексика), «альтернативне фінансування закупівель» (Alternative Financing and Procurement) (Канада), «участь приватного сектору» (Private sector participation, PSP) (Світовий банк). Виокремлено спільні сутнічні ознаки цих понять: співпраця різних стейкхолдерів, комплексність мети, орієнтованість на результат, паритет відповідальності, довгостроковий характер взаємодії, формальність відносин.

Запропоновано критерії виокремлення типів партнерств у зарубіжній практиці: кількість учасників, напрями партнерства, інтегрований критерій «фінасування проєктів публічно-приватного партнерства — надання освітніх послуг», інтегрований критерій «широта охоплення партнерства і глибина взаємодії між партнерами», інтегрований критерій «ступінь координації взаємодії — обсяг інвестування».

Схарактеризовано особливості типів партнерств у професійній та академічній освіті, які були виокремлені на основі запропонованих авторами критеріїв: двосторонні та багатосторонні; інфраструктурні, приватне управління державними закладами, аутсорсинг освітніх послуг, аутсорсинг послуг неосвітнього характеру, інноваційні та дослідницькі партнерства, ваучери та субсидії; приватні ініціативи, спонсорство, змішані проєкти,

державні програми; широке партнерство, поглиблене партнерство; ліберальний, солідарний тип, патерналістський тип, консорціумний типи партнерств.

На основі аналізу кращих практик публічно-приватного партнерства було виокремлено ймовірні ефективні напрями публічно-приватного партнерства у сфері освіти в Україні: посилення участі компаній у процесах професійної підготовки кадрів; окреслення зрозумілого і чіткого розподілу обов'язків у партнерстві; розбудова національних стандартів професійної освіти; поступове впровадження елементів дуальної освіти; сприяння зростанню престижності професійної освіти як привабливої альтернативи академічній освіті; полегшення траєкторії навчання між професійною і вищою освітою; прогнозування навичок.

Запропоновано рекомендації щодо розбудови публічно-приватного партнерства у сфері професійної та вищої освіти в Україні в контексті: формалізації взаємодії (укладення угод і меморандумів про партнерство), управління взаємодією (встановлення якісних і кількісних індикаторів для моніторингу діяльності приватного провайдера і закладів освіти; постійний моніторинг та оцінювання, періодичні огляди діяльності закладів професійної / вищої освіти для приведення його у відповідність до встановлених у контракті стандартів), розвитку результативності партнерства (чіткі критерії якості й результативності діяльності), технологізації взаємодії (зокрема, використання алгоритму взаємодії закладів професійної / вищої освіти з партнерами для реалізації проєктів публічно-приватного партнерства).

Актуалізовано необхідність вивчення таких моделей партнерств, як торгово-промислові палати в Німеччині, Секторальна рада з навчання на виробництві (Канада), центри передового досвіду професійної освіти (Нідерланди), промислові центри або кластери (регіон Тоскана в Італії та Баден-Вюртемберг у Німеччині), Національна корпорація з розвитку навичок (National Skill Development Corporation) (Індія).

**Ключові слова:** публічно-приватне партнерство, професійна освіта, академічна освіта, вища освіта, зарубіжний досвід, кращі практики, результативність, ефективність.

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**Introduction.** In the context of the political process of decentralization in Ukraine, vocational education and training (VET) institutions as well as higher educational institutions have found themselves in new realities, determined by the need to approximate the training of future skilled workers and specialists with the needs of regional labor markets, constant updating of material and technical base of educational institutions according to the newest technological requirements; strengthening the position of such institutions in the regional markets of educational and non-educational services; ensuring the sustainability etc. Under such circumstances, the need for constant and effective interaction of educational institutions with social partners is actualized, which will make it possible to attract managerial and technological expertise of partners, diversify sources of funding, ensure the involvement of partners in the quality assurance of educational process. That is why the task of modernizing the management system of vocational and higher education in Ukraine must be solved on the basis of deepening public-private partnership [2].

The main argument in favor of the leading role of social partners in reforming the management system of education, in our opinion, is that their active participation can effectively synchronize the spheres of work and education, help to identify current and future qualification requirements in companies and transfer them to relevant educational programs, to ensure the recognition of professional qualifications acquired in educational institutions, to support educational processes both on the basis of VET institutions and on the basis of enterprises (on-the-job training) [1]. That is why solving the problem of establishing an effective public-private partnership of educational institutions (both vocational and higher) in order to ensure the sustainability of their operation in the long-term prospective, increasing their competitiveness in the local market of educational services is an urgent task of modern interdisciplinary comparative pedagogical research.

**Analysis of research and problem statement.** During the last decade, various aspects of the public-private partnership have been considered in the works of Ukrainian and foreign scientists, in particular: legal aspects of public-private partnership was developed by T. Gubanova;

aspects of management of public-private partnership were presented in the studies of S. Bilorusov, O. Borodiyenko, O. Dymchenko, L. Korotkova, T. Novachenko, N. Nychkalo, O. Panova, N. Pirozhenko, V. Radkevych, O. Romanova, O. Slavuta. Considerable attention has been paid to the research of the general aspects of economic effectiveness of implementation of public-private initiatives, presented in works of I. Aksionova, J. Ambrazhei, D. Ilnytskyi, M. Knir, O. Liakhovets, O. Moskvichova, V. Ostapenko, O. Rayevniyeva. However, despite the existing developments, there is still no scientific development on the analysis of foreign experience of implementation of public-private partnership initiatives in vocational education. Thus, the purpose of this article is to study the best foreign practices and models of public-private partnership in the field of vocational education, identify opportunities for their adaptation to Ukrainian realities and develop recommendations for productive use of foreign experience.

**Research results.** There are many examples of public-private partnership initiatives in Ukraine that should be analyzed and studied in detail in order to implement the most effective models of encouraging private and public sector entities to use public-private partnership as a tool for implementing effective educational programs based on employers' requirements, regional and local needs. In addition, there are also such forms of cooperation between stakeholders as the creation of training and practice centers of vocational education, arranged by enterprises and managed by vocational institutions, sponsorship (which takes the form of supply of goods or materials for educational institution), organization of students' internship, functioning of regional vocational education councils, creation of supervisory boards of educational institutions, etc. [2]. However, often such interaction is not systemic in nature, not fully using all the opportunities for synergies that may arise as a result of such interaction based on public-private partnership.

Although there are significant differences in foreign countries on a number of indicators, including demographic potential and levels of economic development, almost all of them aim to create an educational system (especially vocational educational one) that would respond quickly and flexibly to changes in the external environment, while ensuring economic growth and social inclusion. On the one hand, such a system enables young people to obtain qualifications, which gives employment prospects. On the other hand, mastering the «right» skills is a key need for implementation a strategy of sustainable economic growth and a strategy to respond to current challenges (such as ongoing digitalization) [7]. In view of this, the study of the best foreign practices of effective public-private partnership in the field of education makes it possible to identify certain models that can serve as a model to follow for Ukraine.

In the foreign conceptual and terminological field, in addition to the concept of «public-private partnership», a number of concepts are used (Private Finance Initiative (PFI) (UK), Service Provision Project (SPP) (Mexico), Alternative Financing and Procurement) (Canada), Private Sector Participation (PSP) (World Bank) [4; 8; 13; 17; 18], which, however, have the same semantic content. The results of the analysis of these concepts allow us to distinguish their essential features: the cooperation of different stakeholders (public authorities, local governments, NGOs, trade unions, companies), the complexity of the goal (it is formed to achieve both socially important and economically beneficial goals), the focus on results (regardless of the form of such partnership, it always has a certain goal and provides the most efficient use of resources to achieve it), parity of responsibility (all partners are responsible for the result of the interaction, and the distribution of risks is equal); long-term nature of interaction; formality of relations (which are made out in the form of agreements (contracts, memorandums etc.).

The analysis of foreign experience [4; 8; 9; 13; 15] also makes it possible to determine the prerequisites that make the interaction within the public-private partnership appropriate: services can not be provided or the project can not be implemented with available resources or experience only of the local authority; the private partner can provide a higher level of service quality than could be provided by the local authority alone; a private operator can ensure a faster pace of initiative implementation than if the project had been implemented by the public sector; service consumers (population) support the idea of involving a private operator; a project or service creates an opportunity for innovation (technological, logistical, intellectual, etc.); as a result of the project

implementation, potential opportunities are created for accelerating economic development at the local or regional levels.

In the field of vocational education and training in foreign countries, the development of public-private partnership is a natural result of the challenges facing the field. These challenges can be decomposed at the national, institutional and industrial levels. At the national level, such challenges are: the need to define an independent policy on key training issues, in particular the transition from general to vocational education; low prestige of vocational education in comparison with academic education; insufficient funding for vocational education; the growing desire of professional associations, businesses and trade unions to interact with the public sector in the process of planning and implementing vocational training (in particular, in developing professional profiles, occupational standards, educational programs, providing places for practical training for students and employment for graduates, etc.); sufficient potential of both educational institutions and the private sector to carry out research and development activities, as well as effective management and administration; effective coordination and cooperation between responsible authorities (for example, on flexible, interdisciplinary training courses, professional advice, recognition of certificates and diplomas); the growing importance of professional qualifications obtained through non-formal education etc. [5; 7; 11; 14].

At the institutional level (educational institution level) such challenges are: low level of quality of management, lack of practical progressive management models; insufficient level of qualification of teachers and trainers (both in terms of technical and pedagogical components of professional competence); budget deficit and low level of autonomy in procurement, revenue management and expenditure policy; inconsistency of the content of training with the specifics of practical work situations; insufficient level of cooperation with local companies; insufficient use of methods in the educational process that would promote motivation, self-study, problem solving and effective use of information; lack of modern infrastructure and poor service of the educational process [5; 7; 11; 16; 17].

The development of public-private partnership was a natural response to the challenges that were inherent in the production (enterprises) level: insufficient funding for systematic vocational training and retraining of employees; inconsistency of conditions for training, appropriate equipment, premises; lack of time to implement such training; lack of instructors who have the necessary expertise and teaching qualifications; insufficient willingness of companies to invest in providing a level of qualification that would exceed the specific requirements of the company or product; low level of readiness of companies to integrate regulations and control from external sources, etc. [5; 7; 11; 14].

As we can see, the analyzed challenges are largely consistent with the current situation in the field of vocational and higher education in Ukraine, which in turn highlights the need for systematic development of public-private partnership.

In the past, public-private partnership initiatives in the field of education were most often associated with infrastructure projects in which private companies gained access to the construction of public facilities. Recently, the term «public-private partnership» has been used to describe business-education partnership projects, which typically involve the use of public funds to purchase educational services from private providers in order to empower citizens to obtain quality vocational education [6; 10; 11]. However, partnerships in education can not only involve the purchase of educational services by the state; their potential is much wider — from the creation of occupational standards, management of educational institutions to the development of educational programs based on companies' needs [7; 8]. Under these circumstances, the public sector in foreign countries is usually the driving force of interaction with the private sector, which often does not show strong motivation for such interaction.

According to existing international experience, public-private partnerships in education are a mechanism for coordinating actions and sharing responsibilities between public and private stakeholders, used to formulate, develop, finance, manage and support ongoing initiatives in the field of common interests [13]. Such projects can take the form of measures to develop strategies or

programs for their implementation, and can include a number of areas, such as research, innovation, continuity of vocational and higher education, entrepreneurial skills, business development and more [12; 14].

For the needs of modern practice in Ukraine, it is important to understand which types of partnerships are the most effective and what should guide the leader (of educational institution, local government, company), choosing one or another type. The authors developed such criteria for distinguishing the types of partnerships: number of participants, areas of partnership, integrated criterion «project financing — provision of educational services», integrated criterion «breadth of partnership and depth of interaction between partners», integrated criterion «degree of coordination of interaction — volume of investment».

According to the criterion «the number of participants» the partnership can be bilateral or multilateral. Bilateral (contractual) partnerships are based on a contractual relationship between the state and the provider and can provide the following options for interaction: a private provider manages public or municipal educational institutions on a contractual basis; the private sector is a provider of services for state and municipal educational institutions (for example, food, transportation, repair, etc.); the private sector provides training and internship services (on government vouchers); the private sector is a provider of educational programs for state and municipal educational institutions; the private partner provides premises and equipment for educational activities; the private partner provides services to ensure the quality of the educational process and its evaluation; implementation of joint innovation and research activities etc. [6; 9; 11; 12].

Multilateral (Multi Stakeholder Partnerships) involves bringing together a wide range of public, private and non-governmental entities. It is a model in which participants from the private sector (private corporations, corporate funds, groups or associations of enterprises) and the public sector (for example, the Ministry of Education) cooperate. Sometimes such partnerships can be joined by international organizations and foundations (for example, UNESCO, the International Monetary Fund, UNICEF, UNDP, the World Bank, etc.). The concept of partnership with several stakeholders provides for mutual obligations and mutual responsibility, voluntary or contractual relations, distribution of investments (financial or logistical), reputational risks (rather than unilateral transfer of risk to the private sector) and joint responsibility in the process of development and implementation of initiatives [11; 12; 15].

According to the criterion «areas of partnership», the following types can be distinguished: infrastructure partnerships (which involves the creation and operation of infrastructure facilities based on the model «construction — operation — transfer»), private operation of public schools (implemented as a model in which the private sector manages public and municipal educational institutions on a contractual basis); outsourcing of educational services (implemented on a contractual basis; the subject of the contract in this case may be: development and implementation of educational programs, assessment or examination, external evaluation of the quality of educational services, supply of textbooks and teaching materials, etc.); outsourcing of non-educational services (implemented on a contractual basis; the subject of the contract in this case may be food services, transportation, medical care, cleaning, construction and operation of dormitories etc.); innovation and research partnerships (to encourage partnerships between industry and research institutions and to promote the commercialization of research results); vouchers and subsidies (government provision of vouchers directly to students in private schools or direct grants from these schools) [11; 12].

According to the integrated criterion «project financing — provision of educational services» the following types of partnerships can be distinguished: private initiatives, sponsorship, mixed projects, government programs. The type of private initiatives includes partnerships in which both funding and training, retraining and advanced training are carried out exclusively by providers and companies representing the private sector. The specific embodiment of this type of partnership can be the functioning of private educational institutions, combined educational programs (when practical training is carried out in enterprises), in-service training programs for enterprises in private educational institutions, in-service training programs for private educational institutions in

enterprises. It is also possible to outsource the management of a private educational institution, as well as to provide advisory support to private institutions by other institutions, organizations and companies [11—13; 18].

The type of «Sponsorship» should be comprised of partnerships in which funding is provided by the private sector, while training, retraining and advanced training is provided by state-owned educational institutions. Forms of such a model of partnership can be: professional development of the company's staff, which is carried out by a educational institution of state ownership; financial support by a private company for the activities of a educational institution (provision of equipment, payment for services, renovation of premises, etc.), financial support by companies for gifted students etc. [16; 17].

Mixed projects include partnerships in which public funding is provided, while training, retraining and advanced training are provided by privately owned educational institutions (private providers). Forms of such a partnership model can be: voucher training (when the state finances the training of students in private educational institutions), public funding for the opening of private educational institutions, creating a tax model (when the state imposes additional taxes on enterprises, which then go to private educational institutions and are spent on retraining and advanced training of enterprise personnel) [9; 10; 16].

The type of «Government programs» logically includes partnerships in which both funding and provision of training, retraining and advanced training is carried out exclusively by institutions and enterprises representing the public sector. A concrete embodiment of this type of partnership may be the creation and financing of public educational institutions, as well as the creation of a tax model (when the state imposes additional taxes on enterprises, which are then sent to public vocational education institutions and spent on initial training of skilled workers, and in some cases for retraining and advanced training of enterprise personnel) [12; 14; 15].

According to the integrated criterion «breadth of partnership and depth of interaction between partners», two types of interaction within the public-private partnerships in education were distinguished — broad partnership and in-depth partnership. A broad partnership involves the cooperation of several companies and the government, which aims to match the demand of these companies for skilled labor with the capabilities of local educational institutions, which provide training in relevant professions. Such cooperation also leads to the formation of a local skilled workforce database, which companies use in the recruitment process. It should be noted that companies provide joint and several funding for the training of future skilled workers. An in-depth partnership implies a significant commitment between the partners and the investment of a wide range of resources (time, information and logistics) in the interaction. Often companies in such a partnership supply educational equipment to educational institutions, provide practical training for students in training centers or on production sites, provide experts for the educational process in educational institutions, cooperate with institutions in reviewing the content of educational programs and standards, evaluate the skill level of graduates and help to harmonize educational programs with the requirements of standards set by public authorities. Educational institutions' responsibilities are in reviewing programs, retraining of instructors, and carrying out in-depth practical training for students [11].

According to the integrated criterion «degree of coordination of interaction — volume of investment» it was distinguished four types of partnerships — liberal, solidarity, paternalistic, consortium types of partnerships. The liberal type of interaction is characterized by a low level of cooperation between employers and educational institutions on the content and methods of vocational training. The main providers of educational services for the training of skilled workers are educational institutions (colleges, vocational schools). Companies also hire skilled workers from the labor market, carrying out their adaptation, retraining and advanced training. Vocational education institutions do not cooperate with enterprises in order to carry out practical on-the-job training of students [11; 12; 18].

The solidarity type is characterized by a high level of involvement of employers, educational institutions, government and civil society and usually occurs in countries whose economies depend



on exports of goods and services with a high share of value added. Historically, negotiations and interaction have taken place between employers' associations and trade unions at the national level. In the small countries of Northern Europe, for example, the partners develop institutions that would coordinate the distribution of profits and costs associated with maintaining the international competitiveness of the industry. In such systems, intermediary organizations, such as chambers of commerce, play a central role in reconciling the interests of companies, regional and national authorities, VET institutions and the labour market [6; 12].

The paternalistic type of interaction is based on the active participation, as a rule, of one large-scale company and its support for the basic VET institution, which provides its (the company's) needs for skilled workers. In addition, such a company provides training equipment, often maintains premises at its own expense, provides instructional materials and guidance on competencies, and provides employment for graduates. For their part, local governments are lobbying for the inclusion in educational programs of those modules that are universal and can provide skills that are in demand by other companies. Such a model is widely represented in Germany; and small and medium-sized businesses, which represent a particular sector of the economy, benefit from the involvement of a large company (*Leitbetrieb*) in such partnership [11]. Examples are the PTECH partnership between IBM, the Department of Education in New York and the Municipal University of New York; the partnership between Volkswagen (Chattanooga, Tennessee) and Chattanooga Municipal College.

The consortium type arises when groups of companies representing a particular industry in a particular region agree on the standards required for certification and licensing in their industry and can offer individuals internships or other forms of on-the-job training. Coordination of activities is mainly carried out through the establishment of an organization such as an industry council, which then works with a group of local VET institutions to ensure that educational programs meet the needs of the sector at the primary and secondary level [15]. In Western Massachusetts, for example, small nanotechnology and biotechnology firms have formed the Massachusetts Manufacturing Association, which, among other things, works to align vocational education programs with member companies and create pilot education programs [15].

Depending on the purpose of the partnership, stakeholders can create their own, unique model that can combine the unique characteristics of one or more types of partnerships. For example, the partnership model of an education institution can be Multi Stakeholder, innovation and research partnership of the solidarity type.

An overview of best international practices gives us the reason to conclude that the areas of effective public-private partnership in education can be:

1. Strengthening the participation of companies in the processes of vocational training. A strong and institutionalized relationship between the vocational education system and the private sector is a necessary precondition for its (system) successful development. The participation of companies in the development of occupational and educational standards, as well as the possibility of practical on-the-job training of students should be provided.

2. Establishing clear and distinct division of responsibilities within the partnership. In partnerships, an institution is often chosen that plays a coordinating role in the interaction between the partners (for example, in South Africa such an institution is the Student Support Service). A promising approach is also to centralize the efforts of institutions in creating models of interaction. This pooling of resources, as well as decision-making competence, will make all measures more effective.

3. Development of National standards of vocational education. The creation of national occupational and educational standards is an important factor in improving the quality of vocational education and employment of graduates in companies. In Germany, for example, so-called national minimum standards are an important aspect of training, as they guarantee that graduates will have the competencies required by the standard. Therefore, efforts to implement such standards should be extended to more professions and industries.

4. Gradual introduction of elements of dual education. In many countries around the world (including the Republic of Korea and Vietnam) there are projects that promote the introduction of elements of dual education, following the example of Switzerland or Germany. The gradual introduction of dual education can be an important factor in the development of the vocational education system and in general the establishment of effective cooperation within the public-private partnership. At the same time, it is important to widely communicate successful models of interaction in order to increase the level of readiness of companies to participate in similar projects.

5. Promoting the prestige of vocational education as an attractive alternative to academic education. For many countries around the world, vocational education is characterized by a certain stigma in society. At the same time, in the labor markets of many countries there is an oversupply of university graduates compared to skilled workers. In view of this, the prospects of the public-private partnership also lie in the area of strengthening career guidance activities, outreach and implementation of image campaigns.

6. Facilitating the learning trajectory between vocational and higher education. This can be an important signal for young people and can help increase the value of vocational diplomas. In addition, there is a growing understanding that primary vocational education is in some cases not self-sufficient and requires further training, especially in connection with the trends of digitalization, robotics, renewable energy, etc. Thus, vocational education can be a powerful basis for continuous updating of skills, and higher permeability can make it attractive to entrants.

7. Skills forecasting. Ukraine needs to create and implement tools to accurately forecast the need for skilled workers. The introduction of elements of dual education, in turn, contributes to this, as companies' investment in vocational education is always linked to their own skills requirements. However, there is a need to institutionalize such system to monitor labor market developments and relevant qualification requirements. In addition, institutional structures should be established and processes initiated to facilitate the transit of forecast scenarios into the training system.

Analysis of the international experience of public-private partnership projects in education allowed us to formulate several recommendations for further development such a partnership in Ukraine:

1. Public-private partnership agreements should contain a clear scope of measures and quality indicators for monitoring the activities of the private operator to improve the quality and efficiency of the educational institution. Such performance indicators can be both quantitative (e.g. standardized tests or statistics) and qualitative (e.g. opinion polls/surveys of parents, staff or periodic inspections of educational institution). Accordingly, in order for contracts to be performed effectively, the administrative body of education must be able to monitor and evaluate, conduct periodic reviews of the activities of the vocational education institution to bring it into line with the standards set out in the contract.

2. For private educational institutions as well as for public ones that apply for state funding, as well as for private operators, clear performance criteria (for example, for infrastructure and staff), requirements for compliance with the adopted state educational program, etc. should be developed.

3. It is also advisable to create special agencies for the management of institutions operating under the public-private partnership initiatives. The advantage of such agencies in the field of vocational education is that it allows to involve efforts in such partnership, to concentrate financial resources and to optimize their flows, promoting greater efficiency and interaction between public and private institutions.

4. The algorithm of interaction of educational institutions with partners for the implementation of public-private partnership initiatives may include the following steps: analysis of the needs of the educational institution; development of the project idea; conceptualization of the public-private partnership initiatives; search for partners to implement the project (in Ukraine, this search can be carried out by trade unions and professional associations); concluding memoranda and partnership agreements; creation of a working group of the project; project implementation (operational monitoring of the project implementation status can be carried out with the help of different checklists and software); analysis of project results, ensuring its sustainability, dissemination of project results.

**Conclusions.** It is determined that in the foreign conceptual and terminological field, in addition to the concept of «public-private partnership» it is used a number of concepts (Private Finance Initiative, Service Provision Project, Alternative Financing and Procurement, Private Sector Participation). The common essential features of these concepts are: cooperation of different stakeholders, complexity of the purpose, focus on the result, parity of responsibility, long-term nature of interaction, formality of relations.

Criteria for distinguishing types of partnerships in foreign practice are: number of participants, areas of partnership, integrated criterion «project financing — provision of educational services», integrated criterion «breadth of partnership and depth of interaction between partners», integrated criterion «degree of coordination of interaction — volume of investment». The peculiarities of the types of partnerships in vocational education, which were singled out on the basis of the criteria proposed by the authors, are characterized: bilateral and multilateral; infrastructure, private management of public institutions, outsourcing of educational services, outsourcing of non-educational services, innovation and research partnerships, vouchers and subsidies; private initiatives, sponsorship, mixed projects, government programs; broad partnership, in-depth partnership; liberal, solidarity, paternalistic, consortium types of partnerships.

The prospective directions of public-private partnership in education in Ukraine are: strengthening the participation of companies in the processes of professional training; outlining a clear and concise division of responsibilities in the partnership; development of national standards of vocational education; gradual introduction of elements of dual education; promoting the prestige of vocational education as an attractive alternative to academic education; facilitating the learning trajectory between vocational and higher education; forecasting skills.

It was developed recommendations for the development of public-private partnership in education in Ukraine in the context of: formalization of interaction (conclusion of agreements and memorandums of partnership), management of interaction (establishment of qualitative and quantitative indicators for monitoring the activities of private providers and vocational education institutions; periodic reviews of vocational education institutions to bring them in line with the standards set in the contract), development of partnership effectiveness (clear criteria for quality and effectiveness), technologicalization of interaction (in particular, use of algorithm of interaction between vocational education institutions and partners for public-private interaction initiatives).

In our further scientific research we are planning to focus on the study of partnership models such as Chambers of Commerce and Industry in Germany, the Sectoral Council for Industrial Training (Canada), centers of excellence in vocational education (Netherlands), industrial centers or clusters (Tuscany in Italy and Baden-Württemberg in Germany), the National Skill Development Corporation (India).

#### Література

1. Бородієнко О. Наглядові ради закладів професійної (професійно-технічної) освіти : практичний посібник // Програма ООН з відновлення та розбудови миру. Київ, 2020. 202 с.
2. Бородієнко О. Публічно-приватне партнерство закладів професійної освіти : практичний посібник. Київ : ПІТО НАПН України, 2020. 302 с.
3. Advisory Committee Information Handbook. ASE Education Foundation. 2017. URL : [https://www.aseeducationfoundation.org/uploads/Advisory\\_Committee\\_Handbook.pdf](https://www.aseeducationfoundation.org/uploads/Advisory_Committee_Handbook.pdf) (Date of access: 10.01.2021).
4. How the private sector develop skills. National skill development corporation: creating vocational skills through public-private partnership. United Nations Development Programme, Istanbul International Center for Private Sector in Development. 2017. 21 p.
5. Borodiyenko O., Malykhina Y., Kalenskyi A., Ishchenko T. Economic, psychological and pedagogical preconditions of implementation of result-based management. *Financial And Credit Activity: Problems Of Theory And Practice*. 2020. № 2 (33). P. 535—546.
6. Creating New Models. Innovative Public-Private Partnerships for Inclusive Development in Latin America. Geneva, Switzerland : World Economic Forum, 2014. 75 p.
7. Dunbar M. Engaging the Private Sector in Skills Development. *UKFIET International Conference on Education and Development — Education & Development. Post 2015: Reflecting, Reviewing, Revisioning, Oxford, Sept. 10—12, 2013*. Oxford, 2013. URL : [https://www.norrag.org/fileadmin/Events/Oxford/OxCon\\_2013\\_Dunbar.pdf](https://www.norrag.org/fileadmin/Events/Oxford/OxCon_2013_Dunbar.pdf) (Date of access: 12.01.2021).
8. The Role of the Private Sector in Vocational and Education and Training. Developments and Success Factors in Selected Countries / European Training Foundation. *ETF Policy Papers*. 2017.
9. Market Update Review of the European PPP Market in 2018 / European PPP Expertize Centre. European Investment Bank. 2018. 10 p.

10. Fabre A., Straub S. The Economic Impact of public private partnerships (PPPs) in Infrastructure, Health and Education: A Review (T. 986). *Toulouse School of Economics Working Paper*. 2019. January. P. 19—986. URL : <https://www.tse-fr.eu/publications/economic-impact-public-private-partnerships-ppps-infrastructure-health-and-education-review> (Date of access: 13.01.2021).
11. Grunwald E. Public-Private Partnership Models in TVET and their Impact on the Role of Government. *GTZ*. 2008. URL : [https://unevoc.unesco.org/e-forum/GTZ\\_PPP-in-TVET.pdf](https://unevoc.unesco.org/e-forum/GTZ_PPP-in-TVET.pdf) (Date of access: 12.01.2021).
12. Heemskerck E., Zeitlin J. Public-private partnerships in Dutch vocational education and training: Learning, monitoring and governance. Den Haag : Platform Bèta Techniek, 2014. URL : <https://dare.uva.nl/search?identifier=8c2f182c-3c09-483a-b9c0-7b8f14631fb9> (Date of access: 10.01.2021).
13. International Best Practices. Upgrading of technical/industrial skills: What do international good and best practices tell us? / United Nations Industrial Development Organization. 2016. URL : <https://lkdfacility.org/resources/upgrading-of-technicalindustrial-skills-what-do-international-good-and-best-practices-tell-us> (Date of access: 17.01.2021).
14. Lessons from TVET Projects Supported by the Japanese Government And Recommendations for the TVET Policies of BMENA Countries From the Public-Private Partnership (PPP) Perspective / Japan International Cooperation Agency (JICA). 2006. URL : [https://www.jica.go.jp/jica-ri/IFIC\\_and\\_JBICI-Studies/jica-ri/publication/archives/jica-briefing/pdf/200610\\_edu.pdf](https://www.jica.go.jp/jica-ri/IFIC_and_JBICI-Studies/jica-ri/publication/archives/jica-briefing/pdf/200610_edu.pdf) (Date of access: 17.01.2021).
15. Moschetti A. V. Public-private partnerships in education: exploring different models and policy options. New York : Open Society Foundations, 2016. URL : <https://www.semanticscholar.org/paper/PUBLIC-PRIVATE-PARTNERSHIPS-IN-EDUCATION-%3A-MODELS-Verges-Moschetti/b5114940eb7b05b155099811ba4fc677b1df888d> (Date of access: 11.01.2021).
16. Connolly A. Public Private Partnerships in Education. Capital Investment Policy & Central Public Private Partnership Unit, Department of Public Expenditure & Reform. 2017. URL : <https://www.oecd.org/gov/budgeting/D2-AM%20-%20S6%20-%20Annette%20CONNOLLY%20-%20Ireland.pdf> (Date of access: 11.01.2021).
17. Remington T. F. Public-Private Partnerships in VET: Translating the German Model of Dual Education. *Higher School of Economics National Research University*. Moscow : HSE Publishing House, 2017.
18. Report on human resources development in the APEC region. Developing effective public-private partnerships / SOM Steering Committee on Economic and Technical Cooperation (SCE), Human Resources Development (HRDWG). 2009. 36 p.

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#### References

1. Borodiienko, O. V. (2020). *Nahliadovi rady zakladiv profesiinoi (profesiino-tehnicnoi) osvity. Prohrama OON z vidnovlennia ta rozbudovy myru [Supervisory boards of vocational (vocational-technical) education institutions. United Nations Peacebuilding and Reconstruction Program]*. Kyiv [in Ukrainian].
2. Borodiienko, O. V. (2020). *Publichno-pryvatne partnerstvo zakladiv profesiinoi osvity [Public-private partnership of vocational education institutions]*. Kyiv: IPTO NAPN Ukrainy [in Ukrainian].
3. Advisory Committee Information Handbook. (2017). ASE Education Foundation. Retrieved January 10, 2021, from [https://www.aseeducationfoundation.org/uploads/Advisory\\_Committee\\_Handbook.pdf](https://www.aseeducationfoundation.org/uploads/Advisory_Committee_Handbook.pdf).
4. How the private sector develop skills. National skill development corporation: creating vocational skills through public-private partnership. (2017). United Nations Development Programme, Istanbul International Center for Private Sector in Development. 21 p.
5. Borodiienko, O., Malykhina, Y., Kalenskyi, A., & Ishchenko, T. (2020). Economic, psychological and pedagogical preconditions of implementation of result-based management. *Financial and Credit Activity: Problems of Theory and Practice*, 2 (33), 535—546. doi:10.18371/fcactp.v2i33.207237.
6. Creating New Models. Innovative Public-Private Partnerships for Inclusive Development in Latin America. (2014). Geneva, Switzerland: World Economic Forum.
7. Dunbar, M. (2013). Engaging the Private Sector in Skills Development. *UKFIET International Conference on Education and Development – Education & Development. Post 2015: Reflecting, Reviewing, Revisioning. Oxford, 10—12 Sept. 2013*. Retrieved January 12, 2021, from [https://www.norrag.org/fileadmin/Events/Oxford/OxCon\\_2013\\_Dunbar.pdf](https://www.norrag.org/fileadmin/Events/Oxford/OxCon_2013_Dunbar.pdf).
8. European Training Foundation. (2017). The Role of the Private Sector in Vocational and Education and Training. Developments and Success Factors in Selected Countries. *ETF Policy Papers*.
9. European PPP Expertize Centre. (2018). Market Update Review of the European PPP Market in 2018. European Investment Bank. 10 p.
10. Fabre, A., & Straub, S. (2019, January). The Economic Impact of public private partnerships (PPPs) in Infrastructure, Health and Education: A Review (T. 986). *Toulouse School of Economics Working Paper*. Retrieved January 13, 2021, from <https://www.tse-fr.eu/publications/economic-impact-public-private-partnerships-ppps-infrastructure-health-and-education-review>.
11. Grunwald, E. (2008). Public-Private Partnership Models in TVET and their Impact on the Role of Government. *GTZ*. Retrieved January 12, 2021, from [https://unevoc.unesco.org/e-forum/GTZ\\_PPP-in-TVET.pdf](https://unevoc.unesco.org/e-forum/GTZ_PPP-in-TVET.pdf).
12. Heemskerck, E., & Zeitlin, J. (2014). Public-private partnerships in Dutch vocational education and training: Learning, monitoring and governance. Den Haag: Platform Bèta Techniek. Retrieved January 10, 2021, from <https://dare.uva.nl/search?identifier=8c2f182c-3c09-483a-b9c0-7b8f14631fb9>.
13. United Nations Industrial Development Organization. (2016). International Best Practices. Upgrading of technical/industrial skills: What do international good and best practices tell us? Retrieved January 17, 2021, from <https://lkdfacility.org/resources/upgrading-of-technicalindustrial-skills-what-do-international-good-and-best-practices-tell-us>.
14. Japan International Cooperation Agency. (2006). Lessons from TVET Projects Supported by the Japanese Government And Recommendations for the TVET Policies of BMENA Countries From the Public-Private Partnership (PPP) Perspective. Retrieved from January 17, 2021, from [https://www.jica.go.jp/jica-ri/IFIC\\_and\\_JBICI-Studies/jica-ri/publication/archives/jica-briefing/pdf/200610\\_edu.pdf](https://www.jica.go.jp/jica-ri/IFIC_and_JBICI-Studies/jica-ri/publication/archives/jica-briefing/pdf/200610_edu.pdf).

15. Moschetti, A. V. (2016). Public-private partnerships in education: exploring different models and policy options. New York: Open Society Foundations. Retrieved January 11, 2021, from <https://www.semanticscholar.org/paper/PUBLIC-PRIVATE-PARTNERSHIPS-IN-EDUCATION-%3A-MODELS-Verger-Moschetti/b5114940eb7b05b155099811ba4fc677b1df888d>.
16. Connolly, A. (2017). Public Private Partnerships in Education. Capital Investment Policy & Central Public Private Partnership Unit, Department of Public Expenditure & Reform. Retrieved January 11, 2021, from <https://www.oecd.org/gov/budgeting/D2-AM%20-%20S6%20-%20Annette%20CONNOLLY%20-%20Ireland.pdf>.
17. Remington, T. F. (2017). Public-Private Partnerships in VET: Translating the German Model of Dual Education. *Higher School of Economics National Research University*. Moscow: HSE Publishing House. doi:10.31737/2221-2264-2017-36-4-9.
18. SOM Steering Committee on Economic and Technical Cooperation, Human Resources Development. (2009). Report on human resources development in the APEC region. Developing effective public-private partnerships.

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