SOCIAL AND ECONOMIC PREREQUISITES OF STRATEGIC DEVELOPMENT OF UNIVERSITIES IN THE CONDITIONS OF WAR AND POST-WAR PERIOD

ABSTRACT

The purpose of the article is to study current social and economic prerequisites of the strategic development of higher educational institutions (universities) in the conditions of war and post-war period.

The theoretical significance of the article is that, based on the authors’ analysis, the social and economic prerequisites for the strategic development of universities in the conditions of war and post-war period are characterized; a comprehensive analysis of political, economic, social and demographic and technological factors that cause opportunities/threats to the strategic development of universities is presented.

The practical significances of the article are that the main challenges that will hinder the strategic development of universities in the conditions of war and post-war period were highlighted; strategic tasks for universities based on current peculiarities of social and economic environment are proposed.

It is substantiated that in the process of strategic development of universities it is advisable to conduct an in-depth comprehensive analysis of political, economic, social and demographic and technological factors that directly affect or will likely affect their (universities) strategic goals and objectives. The method of PEST analysis was used to comprehensively characterize the set of the most significant factors of influence.

It is determined that the significant political factors are large-scale military aggression of the Russian Federation, domestic political center-oriented processes and prevailing of populist paradigms, national policy on economic development/global leadership/competitiveness. Among the economic factors are significant losses of social and economic potential of the country’s regions, significant destruction of infrastructure, loss of human potential due to external migration, rising unemployment, loss of export positions, relocation of business from the occupied territories.

Among the social and demographic factors, it was substantiated significant migration flows, declining of pace of population reproduction, accelerating the aging process, increasing the share of single-parent families, the unity of Ukrainian society in the direction of countering the enemy, a high level of patriotism, the formation of a democratic political nation and civil society, responsibility, ability to radically change the further history of Ukraine.

The key challenges that create opportunities/threats for the strategic development of universities are identified: the need to restore the material and technical base, human resources and research infrastructure of universities, bringing training programs in line with regional labor markets, introduction of retraining/adult training programs, optimization and reengineering of business processes, providing flexibility in responding to changing conditions, introducing the concept of result-based university management, increasing the level of technologization and digitalization of business processes, strengthening the research component in activities along with deepening the level of international partnership.

Strategic vectors of development of universities during post-war period are proposed: the need to intensify cooperation with partners, focus on research aimed at overcoming the greatest societal challenges, involving a wide range of stakeholders in the process.
of co-production and innovation, building "smart specialization" of each university, implementation of certain principles (positioning of university, synergy, integration, technological development, involvement, optimality) in the process of strategizing, incorporation of ICT in order to improve internal business processes of universities, widespread implementation of the so-called partnership model of university management, implementation of communicative and information function in cooperation with refugees, accelerating training of engineering and technological specialties.

**Keywords:** strategic development, strategic management, social and economic prerequisites, institutions of higher education, war, post-war period

**JEL Classification:** I22, O43

**INTRODUCTION**

Unprecedented social and political processes unfolding in Ukraine as a result of large-scale military aggression of the Russian Federation give rise to the need for their scientific understanding in order to elaborate a strategy for development the country in the nearest future. One of the significant challenges is the reformation of the education system, in particular, higher education, in the context of development an adequate basis for training and development of scientific potential.

**LITERATURE REVIEW**

The issue of strategic development of higher educational institutions was studied by V. Bykov, O. Borodiyenko, G. Dmitrenko, L. Danylenko, L. Kalinin, L. Karamushka, Ja. Malychkina, B. Kobzar, V. Oganesov, V. Oliynyk, V. Lugovyi, T. Lomakina, T. Lukina, O. Novikov, N. Mursalimov, V. Oglarenko, N. Ostroverkhova, E. Pavlyutenkov, M. Potashnik, A. Prokopenko, L. Sergeyeva, T. Sorochan, O. Skidina and others. It is obvious that previous research in the field of elaborating a strategy for the development of higher education institutions (universities) requires significant rethinking in the context of social and economic transformations in Ukraine and significant reformatting of missions, visions, strategic and operational tasks of universities during current period. We stand on the position that in the process of elaborating a strategic vision it is important to take into account peculiarities of external environment, in particular socio-economic prerequisites, which influence these institutions and generates significant, sometimes decisive influences (Borodiyenko, 2022). Thus, the purpose of the article is to study current social and economic prerequisites of the strategic development of higher educational institutions (universities) in the conditions of war and post-war period.

**RESULTS**

The events of recent months in Ukraine have deepened the understanding of the importance of creating and constantly updating flexible university development strategies based on a thorough and up-to-date analysis of conditions of external social and economic environment. Not diminishing the importance of "materiality analysis which makes it possible to decide at what issues businesses need to prioritize and identify where to invest time and resources through two lenses: importance to external stakeholders and importance to the business and its internal stakeholders" (Borodiyenko, 2022) we stand of the opinion that in the process of strategizing it is important to use such methods of strategic analysis, which, on the one hand, would assess the impact of the external environment on current and future development of the university, and on the other – will give the chance to reveal threats and opportunities for such development.

On the institutional level, to substantiate the system of determinants of development of a modern university, a precise analysis of the general context in which its (university) development takes place at the present stage is necessary. In order to comprehensively characterize the set of the most significant factors of influence, it is advisable to use the method of PEST-analysis, which allows to determine the influence of external factors that, on the one hand, are beyond its (university's) control and on the other hand - directly affect the elaboration of further strategy for its development (Sammut-Bonnici, 2015). It is important to note that the prism of the analysis of the external environment (and its individual factors) is what opportunities and threats it (the environment) creates for a particular university (Borodiyenko, 2021). In the process of such analysis, it is necessary to distinguish national (which is characterized by national processes that have an inevitable impact on university development), regional (characterized by specific factors of socio-economic development of a particular region), and institutional (specific processes occurring at the university) sections of analysis. Moreover,
among the factors should be distinguished both those that already have an impact on the phenomenon under study, and probable factors (in order to take action to prevent or eliminate their likely negative effects).

PEST-analysis covers a comprehensive analysis of 4 groups of factors: political, economic, social, technological. At the national level, the set of political factors that have a significant impact on the modern development of the universities includes the following: large-scale military aggression of the Russian Federation; the threat of the transition of hostilities to a stage of prolonged frozen conflict; the existing threat of losing part of the territories (with their social and economic and human potential); possible focus of domestic political processes on leveling the European vector of state development, strengthening centered-oriented domestic political processes/deepening European integration and accelerating the process of full membership of Ukraine in the EU; the likely dominance of political parties that focus their policies on populist anti-immigration, anti-corruption and anti-European issues; state policy on the development of the education system in general and the higher education system in particular (directing development processes towards centralization or liberalization; accelerating/slowing down the integration of the education system into the European Higher Education Area; liberalization of the process of state final certification, the need to ensure the availability of quality lifelong learning for all citizens and further strengthen its national character, education of citizens capable of independent thinking, social choice and activities aimed at prosperity of Ukraine (President of Ukraine, 2022), creating a competitive system of higher education, which, thanks to cooperation with scientific institutions and the business sector, forms the professional and scientific-educational potential of the nation on the basis of continuous professional and personal development, focused on the highest achievements and practices, integrated into the world educational and research space (MES, 2021); the specifics of the national strategy for economic recovery, competitiveness, the country's place in the international division of labor.

Among the economic factors are the following: significant losses of social and economic potential (according to World Bank forecasts, only in 2022, Ukraine's GDP will decline by 45%, the proportion of people living below the poverty line will increase from 18 to 70% (World Bank, 2022), significant infrastructure damage (including as of April 11, 2022, 928 educational institutions were damaged, 84 of which were completely destroyed (MES, 2022), significant loss of human potential due to external migration (according to the International Organization for Migration, about 4.5 million people left the country, another 7.1 million are internally displaced persons since the beginning of hostilities (IOM, 2022), rising unemployment (according to a poll made by the sociological group "Rating" 53% of the population lost their jobs (Rating Group, 2022), loss of scientific potential, loss of export positions on strategically important/critical goods (wheat, corn, oil, ferrous metallurgy products, cable harnesses (Ekonomichna Pravda, 2022); slow recovery of the material and technical base of enterprises/organizations; accelerated structural and territorial restructuring of Ukraine's economy in comparison with more conservative processes of educational restructuring. Another important economic factor is the relocation of business from areas that are particularly affected by hostilities, especially to the traditionally redundant regions of Western Ukraine (Libanova, 2022), which significantly changes the architecture of local labor markets in this region.

Prospective trends in the country's economy and labor market should be predicted today. According to scientists, the most popular professions in the post-war period will be professions related to the reconstruction of the country (and related professions that arise as a result of multiplication processes in construction), professions in the processing of agricultural raw materials and military-industrial complex (Libanova, 2022). The system of higher education should offer its answer not only to the training of personnel for these industries, but also to the issues of effective management of companies in these areas.

Analysis of social and demographic factors is necessary in terms of identifying trends in the reproduction of the population as a whole, its labor potential, which has a direct impact on the capacity of the domestic market (and, consequently, the market needs specialists), and on the structure of consumption (which in turn determines the need for appropriate qualitative characteristics of specialists). Important social and demographic factors are: significant migration flows of the population (including external migration and internal replacement), which determine the current and future supply of labor; reducing the pace of demographic reproduction of the population; accelerating the aging process; unfavorable for further reproduction of the population as a whole and human potential in particular, gender and age redistribution of the population; trends in social phenomena that determine the transformation of values, behavior, attitudes of people about their careers, professional growth (in particular, migration attitudes, motivation to get an education (including higher education) in Ukraine, etc.). These trends in the demographic reproduction of the population and the social phenomena they generate actualize the discussion about people of retirement age, the need to implement a balanced social and demographic policy aimed at ensuring social unity and solidarity between generations. In addition, the mismatch between the age structure of the population creates a situation where the working population must provide opportunities to meet the needs of the elderly people - health care infrastructure, pensions, etc. The increase in the number of single-parent families as a result of hostilities poses a risk of poverty and marginalization, and the significant gap between the supply of high-skilled labor and the market's need for low skilled workers necessitates a review of higher education policies in general.
There are also a number of risks associated with modern demographic processes: the risk of non-return to Ukraine of two categories of the population - large families and women with children, people with special needs, chronically ill, who will receive significant social support in the EU, and on the other hand - qualified, ambitious, mobile people; the risk of potential reunification of men with their families after the end of hostilities; the risk of increasing the scale of migration to relatively safe regions of Ukraine in the event of the spread of hostilities; acceleration of forced deportation of the population to the territory of Russia (Libovanova, 2022). On the other hand, according to the State Border Guard Service, about 600,000 citizens who have a strong association with Ukraine and the processes taking place in it have returned to Ukraine so far.

Important social factors that determine the current situation are: the unity of Ukrainian society in the direction of countering the enemy, a high wave of patriotism, the formation of a democratic political nation and civil society, which realized its strength, responsibility, ability to radically change the future history of Ukraine (Libovanova, 2022); rooting in society a sense of freedom and independence; accelerated integration of Ukraine into the European space, scaling up this process (Libanova, 2022).

The current state and prospects of the development of the sector of research, innovation and technological developments significantly affect the development of education, determining the demand and structure of employment, technological level of logistics, requirements for the competencies of specialists. Among the probable technological factors are the following: trends in technology development and their impact on economic development (in particular, increasing digitalization, restructuring the country's energy system in terms of increasing the share of "green" energy, dual-use technology); national innovation policy; influence of technological development to the demand for labor, the structure of professions and the content of education. Consideration should also be given to those technologies that will be widely implemented in Ukraine, in particular, housing construction technologies that can be quickly dismantled and reassembled in a new location.

The analysis of these factors makes it possible to identify challenges that will have a significant impact on the development of Ukrainian universities in the nearest future: the need to restore the material and technical base, human resources and research infrastructure of universities; deepening efforts to attract applicants; bringing training programs in line with the requirements of regional labor markets; increasing the level of employment of graduates; introduction of retraining/advanced training programs for the adult population; optimization and reengineering of business processes, providing flexibility in responding to changing conditions, introduction of the concept of result-based university management; increasing the level of technologicalization and digitalization of business processes; strengthening the research component of the activity along with deepening the level of international partnership.

Understanding the specifics of the national and institutional environment that affects universities has allowed us to elaborate a number of recommendations for their (universities) strategic development during war and post-war period. Despite the significant benefits from the existence of financial, institutional, organizational autonomy of universities, these challenges cannot be overcome without intensifying cooperation with partners, which can be realized either in the form of project activities or permanent forms of public-based administration. The partnership itself is an impetus to mutual synergy of interaction, pollination of best management and business practices, improving the quality of positioning and competitiveness of the university, and significant changes in ensuring the quality of education and management (World Economic Forum, 2014; Fabre, Straub, 2021; Moschetti, 2016; Borodiyenko, 2020).

Given the specifics of the current development of the educational space in Ukraine and the state of its integration into the European Research and Education Area we believe that the ideas formulated in (Commission to the European Parliament, 2010) should be productive for Ukrainian universities, in particular on focusing on research aimed at overcoming the greatest societal challenges (energy, water, health, education, public transport), the broader prism of the vision of innovation (both technological innovation and innovation in business models, design, branding, service), creative industries and the creation of new jobs in the context of the above; involving a wide range of stakeholders in the process of co-production and innovation (universities, small and medium-sized businesses, NGOs, private companies, citizens and their associations), building a "smart specialization" of each university focusing on its strengths and active partnership and interaction with stakeholders. Synergy of cooperation at the level of universities, companies and international organizations is necessary for further technological development of the country in the current conditions.

It is also necessary to widely implement the principles of positioning of university, synergy, integration, technological development, involvement, optimality (Borodiyenko, 2022) in the process of strategizing and strategy implementation, which should enable the maximum effect in terms of operational or financial efficiency.

Another important direction is incorporation of ICT in order to improve internal business processes of universities: the key aspects of interaction with stakeholders, creation and transfer of correspondence and documents, real-time virtual communication, management of the university based on project management approach (visualization, collaboration of project.
teams on the document, its synchronization), binding processes to the global strategy, establishing cooperation with the target audience (Borodiyenko, 2022).

Implementation of so called partnership model of management of university, which characterized by the following features: «involvement of stakeholders in key business processes of the educational institution, introduction of automated CRM-systems (stakeholder interaction management systems), effective functioning of joint advisory bodies, in particular, supervisory boards of educational institutions, which include key members from the side of stakeholders), focus on continuous innovation development (in the context of technological, managerial and pedagogical innovations), implementation of risk management concept, ICT systems» (Borodiyenko, 2022) is also of great importance.

Because at the state level there is a need for a targeted policy of liaison with refugees and migrants (online lessons for refugee children on the Ukrainian language, culture, literature), meetings with parents (informing them about assistance in rebuilding housing, restoring the labor market, etc.) (Libanova, 2022), universities could take on such a communicative and informative function, which in the long prospective would provide them with image (as a cultural and information center) and economic benefits (more applicants).

For universities in the western part of Ukraine (where there is a significant relocation of business from the occupied parts of the country), it is necessary to create and implement a short-term retraining/advanced training courses for internally displaced persons to become competitive in the renewed labor market.

In addition, changes in the labor market (increasing importance of professions related to construction, infrastructure rehabilitation, development of the food industry, military-industrial complex) necessitates accelerated training of engineering and technological specialists in these fields at universities.

**CONCLUSIONS**

Due to the large-scale military aggression of the Russian Federation, previous scientific research in the field of elaborating a strategy for the development of higher education institutions (universities) need significant rethinking. In order to significantly reformat the missions, visions, strategic and operational tasks of universities, a thorough analysis of the current social and economic context is important. In the conditions of war and post-war period in the process of strategizing it is important to use such methods of strategic analysis, which, on the one hand, would assess the impact of the external environment on current and future development of the university, and on the other - would identify threats and opportunities for such development. For the complex characteristic of the set of the most significant factors of influence, it is expedient to use the method of PEST-analysis. Significant political factors are: the large-scale military aggression of the Russian Federation, domestic political centered-oriented processes and the prevailing of populist paradigms, national policy on economic development/global leadership/competitiveness. Economic factors are: significant losses of social and economic potential, significant destruction of infrastructure, loss of human potential due to external migration, rising unemployment, loss of export positions, relocation of business from the occupied territories. Social and demographic factors are: significant migration flows, declining pace of population reproduction, accelerating the aging process, increasing the share of single-parent families, a high wave of patriotism in Ukrainian society, building a democratic political nation and civil society that has realized its strength and responsibility, ability to radically change the further history of Ukraine. Existing challenges (the need to restore the material and technical base, human potential and research infrastructure of universities, bring training programs in line with the requirements of regional labor markets, introduce retraining/advanced training programs for adults, optimization and reengineering of business processes, flexibility in responding to changing conditions, introduction of the concept of result-based university management, increasing the level of technologization and digitalization of business processes, strengthening the research component in activities along with deepening the level of international partnership) create the need to intensify cooperation with partners, focusing on research aimed at overcoming the greatest societal challenges, involvement a wide range of stakeholders in the process of co-production and implementation of innovations, development of "smart specialization" of each university, implementation in the process of strategizing of certain principles (positioning of university, synergy, integration, technological development, involvement, optimality), incorporation of ICT in order to improve internal business processes of universities, wide implementation of the so-called partnership model of university management, implementation of communicative-information function in work with refugees, accelerated training of engineering and technological specialties.
1. A shho v nas z eksportom ta importom? Yak Ukrainy torguyu v umovax vijny [What about our exports and imports? How Ukraine trades during the war]. [online] Available at: https://www.epravda.com.ua/publications/2022/03/25/684674/ [Accessed 20 April 2022] [In Ukrainian].


5. Ministerstvo osvity i nauky Ukrainy. Interaktyvna mapa poshukozhenykh i zruzynovanych zakladiv osvity. [Ministry of Education and Science of Ukraine. Interactive map of damaged and destroyed educational institutions] [online] Available at: https://saveschools.in.ua [Accessed 10 April 2022] [In Ukrainian].


10. Ella Lybanova: okazal’s`, chto kolbasu za 2.20 dlja nas – ne sameo vazhnoe. [Ella Libanova: it turned out that sausage for 2.20 is not the most important thing for us]. [online] Available at: https://www.pravda.com.ua/ru/articles/2022/04/7/7337849/ [Accessed 20 April 2022] [In Ukrainian].


15. Europe 2020 Flagship Initiative Innovation Union: Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. [online] Available at: https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52010DC0546 [Accessed 10 April 2022].


Бородієнко О. В., Малихіна Я. А., Протопопова Я. С., Кім К. В., Малихіна В. М.

СОЦІАЛЬНО-ЕКОНОМІЧНІ ПЕРЕДУМОВИ СТРАТЕГІЧНОГО РОЗВИТКУ УНІВЕРСИТЕТІВ В УМОВАХ ВІЙНИ ТА ПОСТВОЄННОГО ЧАСУ

Метою статті є вивчення соціально-економічних передумов стратегічного розвитку університетів в умовах війни й поствоєнного часу.

Теоретичне значення статті полягає в тому, що в ній на основі здійсненого авторами аналізу складенося характеристики соціально-економічних передумов стратегічного розвитку університетів в умовах війни та поствоєнного часу; здійснено комплексний аналіз політичних, економічних, соціально-демографічних і технологічних чинників, які генерують можливості/загрози для розвитку університетів.

Практичне значення статті полягає в тому, що авторами було виокремлено основні виклики, які гальмують розвиток університетів в умовах війни та поствоєнного часу; запропоновано стратегічні завдання в контексті врахування умов зовнішнього середовища.

Обґрунтовано, що в процесі стратегічного розвитку університетів доцільно здійснити глибокий всебічний аналіз політичних, економічних, соціально-демографічних і технологічних чинників зовнішнього середовища, які безпосередньо впливають або здійснюють імовірний вплив на Іхню (університетів) стратегічну мету та завдання. Для комплексної характеристики суккупності найбільш значущих чинників впливу було використано метод PEST-аналізу.

Визначено, що суттєвими політичними чинниками є широкомасштабна агресія російської федерації, внутрішньополітичні та економічні процеси та приватизація відповідно, національна політика щодо розвитку економіки/глобального лідерства/конкурентоспроможності. Серед економічних чинників викріплено суттєві втрати соціально-економічного потенціалу регіонів країни, значні руйнування інфраструктури, чималі втрати людського потенціалу та дослідницької інфраструктури закладу, приведення процесів старіння населення, зниження тимів його відтворення, прискорення процесів старіння населення, зростання частки неполових сімей, єдиня українського суспільства в напрямку протидії ворогові, висока хвиля патріотизму, формування демократичної політичної нації та громадянського суспільства, яке усвідомило свою силу, відповідальність, спроможність докорінно змінити подальшу історію України.

Серед соціально-демографічних чинників обґрунтовано значні міграційні потоки населення, зниження темпів його відтворення, прискорення процесів старіння населення, зростання частки неполових сімей, єдиня українського суспільства в напрямку протидії ворогові, висока хвиля патріотизму, формування демократичної політичної нації та громадянського суспільства, яке усвідомило свою силу, відповідальність, спроможність докорінно змінити подальшу історію України.

Викріплено ключові виклики, які створюють можливості/загрози для розвитку університетів: необхідність відновлення матеріально-технічної бази, людського потенціалу та дослідницької інфраструктури закладу, приведення про-
грам підготовки до відповідності з вимогами регіональних ринків праці, запровадження програм перепідготовки/підвищення кваліфікації дорослого населення, оптимізація та реінжиніринг бізнес-процесів, забезпечення гнучкості реагування на змінювані умови, запровадження концепції орієнтованого на результат управління університетом, зростання рівня технологізації та цифровізації бізнес-процесів, посилення дослідницької складової в діяльності по- руч із поглибленим рівнем міжнародного партнерства.
Запропоновано стратегічні вектори розвитку університетів в умовах війни та в посівний час: необхідність акти- візації взаємодії з партнерами, фокусування на дослідженнях, спрямованих на подолання найбільших суспільних викликів, залучення широкого кола стейкхолдерів до процесу спільного продукування та впровадження інновацій, розбудова «розумної спеціалізації» кожного університету, упровадження в процес стратегування визначених прин- ципів (позиціонування університету, синергії, інтеграції, технологічного розвитку, залучення, оптимальності), за- провадження ІКТ з метою покращення внутрішніх бізнес-процесів університетів, широке впровадження так званої партнерської моделі управління університетами, здійснення комунікативно-інформаційної функції в роботі з біженцями, пришвидшеної підготовки фахівців інженерних та технологічних спеціалностей.

**Ключові слова:** стратегічний розвиток, стратегічний менеджмент, заклади вищої освіти, соціально-економічні чинники, війна, посівний період

**JEL Класифікація:** I22, O43