

# FACTORS OF THE COMPETITIVENESS INCREASE OF HIGHER EDUCATION WITHIN THE CONCEPT OF THE STATE'S SUSTAINABLE DEVELOPMENT

Yuriy Safonov<sup>1</sup>, Kostiantyn Shaposhnykov<sup>2</sup>, Tamila Berezhna<sup>3</sup>, Tetiana Zaika<sup>4</sup>, Liubov Tarangul<sup>5</sup>, Iryna Kramarenko<sup>6</sup>

<sup>1</sup>Dr. Sc., Prof., State Scientific Institution "Institute of Education Content Modernization", 36 Metropolitan Vasil Lypkivsky Str., 03035, Kyiv, Ukraine, E-mail address: sum1971@ukr.net

<sup>2</sup>Dr. Sc., Prof., State Scientific Institution "Institute of Education Content Modernization", 36 Metropolitan Vasil Lypkivsky Str., 03035, Kyiv, Ukraine, E-mail address: k.s.shaposhnykov@gmail.com

<sup>3</sup>PhD, State Scientific Institution "Institute of education content modernization", 36 Metropolitan Vasil Lypkivsky Str., 03035, Kyiv, Ukraine, E-mail address: tamilaimzo@gmail.com

<sup>4</sup>*PhD*, State Scientific Institution "Institute of Education Content Modernization", 36 Metropolitan Vasil Lypkivsky Str., 03035, Kyiv, Ukraine, E-mail address: zaika\_tp@ukr.net

<sup>5</sup>Chernivtsi Branch of the State Scientific Institution "Institute of Education Content Modernization", 5 Heroes of the Maidan Str., 58001, Chernivtsi, Ukraine, E-mail address: tarcov57@gmail.com

<sup>6</sup>PhD, State Scientific Institution "Institute of education content modernization", 36 Metropolitan Vasil Lypkivsky Str., 03035, Kyiv, Ukraine, E-mail address: kramarenkoirina22@gmail.com

Received 05 01 2023; Accepted 19 01 2023

#### Abstract

The article is devoted to the selection and research of factors for increasing the competitiveness of higher education within the framework of the concept of sustainable development of the state. The theoretical and methodological basis of this research is the fundamental provisions of management, social sciences, economic theory, as well as a wide range of general scientific and special research methods, including the system method, the method of analysis and synthesis, the method of induction and deduction, the graphic method, and others. It has been proven that one of the essential problems of the higher education system in the context of ensuring sustainable development at the stage of its transformation is increasing competitiveness. The study of this definition made it possible to reflect the view on its understanding and revealed the dependence of this category on many factors, such as: political, socio-economic, socio-cultural, demographic, normative-legal and innovative-technological, which act in a complex manner, exerting a systemic influence.

*Keywords:* factors of increasing the competitiveness of higher education, higher education, competitiveness, sustainable development, the concept of sustainable development of the state, higher education system. *JEL Codes:* 1 20, 1 21, O 15.

### Introduction

Significant transformations of the external environment in market conditions lead to an increase in the importance of higher education in the context of ensuring the sustainable development of the state. The experience of the developed countries of the

world indicates that competitive higher education not only meets the needs of the economic system for highly educated people and highly qualified personnel, but also is an engine of the socio-economic development of the state and acts as a basic factor of leading transformations in the post-industrial economy.

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Thus, in Ukraine there is an urgent need to overcome these disparities by identifying and studying factors, as well as developing and implementing a mechanism to increase the competitiveness of higher education in the conditions of the spread of globalization processes. The specified mechanism should be aimed at the latest achievements of science, technology, education of the leading countries, as well as at the harmonious combination of higher education institutions with the institutional environment, innovative development and personnel needs in the conditions of the latest post-industrial economy and in the context of ensuring sustainable development.

The purpose of this article is to identify and study the factors of increasing the competitiveness of higher education within the framework of the state's sustainable development concept.

## Literature review

Research by foreign and domestic scientists is devoted to the peculiarities of the development of higher education and increasing its level of competitiveness. The study of the development of the higher education system acquires special relevance within the framework of the implementation of the goals of sustainable development. The study (Cosmulese, C.G. et al., 2019) examines the impact of digitization processes on the education system of EU countries. Scientists (Djakona A. et al., 2019) devoted their research to the analysis of Latvia's experience and the possibilities of its implementation in Ukraine in the context of the place of education in the information economy development. The scientific paper (Elmassah S. et al., 2022) analyzed the role of higher education in sustainable development based on case studies. Research (Fleig R. et al., 2021) is devoted to researching the tasks that higher education institutions need to fulfill for the sustainable development of the country. Article (Grosu V. et al., 2021) examines how investment processes affect the sustainability of the higher education system.

Scientists (Issa Ibrahim Berchin et al., 2021) analyze how higher education institutions contribute to sustainable development. The purpose of the study (Kholiavko N. et al., 2022) is to analyze the role of higher education in the development of the digital economy. Articles (Kholiavko N. et al., 2021; Bazhenkov I. et al., 2021) consider the peculiarities of universities' adaptability to the challenges of the digital economy. The authors of the article (Kurniawati Masmira et al., 2021) outline priority education services in the context of ensuring sustainable development. Scientists (Miloš Krstić, 2021) consider higher education as a determinant of competitiveness and sustainable economic development. Research (Popelo O. et al., 2022) has proven that higher education is a key component of sustainable development of the state. In a study by scientists (Zhavoronok A. et al., 2021), using the concept of four spirals, an integrated model of higher education financing was developed.

The analysis of key areas of scientific publications by authors from all over the world in the field of education and sustainable development is presented in Fig. 1.



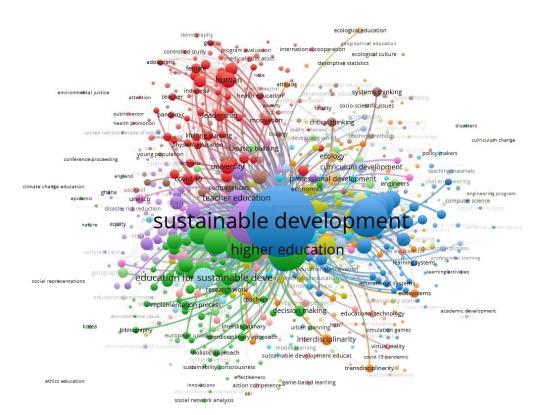


Figure 1. Graphic map of keywords in publications, in which titles the word "education and sustainable development" is met

\*Source: compiled by the authors based on the analysis of the Scopus database and using the tools of the VOSviewer program.

An article examining education in the context of sustainable development according to Scopus data was first published in 1989. Examining the dynamics of the last 10 years, it should be noted that it was as follows: 2022 -227 articles, 2021 - 283 articles, 2020 - 310 articles, 2019 - 188 articles, 2018 - 143 articles, 2017 – 144 articles, 2016 – 113, 2015 -110 articles, 2014 - 84 articles, 2013 - 102articles. Analyzing the activity of scientists, the world centers of scientific research in the education field of and sustainable development, based on the results of the analysis of publications in the Scopus database, are: United Kingdom, United States, Germany, Spain, Sweeden, China, Australia, Canada, South Africa, Japan, Portugal, Malaysia, Brazil, Netherlands, Indonesia and other.

However, despite the available publications on the researched topic, the study

of factors for increasing the competitiveness of higher education within the framework of the state's sustainable development requires further study and in-depth analysis.

## **Methodical approach**

The theoretical and methodological basis of this research is the fundamental provisions of management, social sciences, economic theory, as well as a wide range of general scientific and special research methods. In the process of writing the article, the authors used the following methods as systemic, analysis and synthesis, induction and deduction to formulate an understanding of the concept of of higher "competitiveness education"; clarification of the components of the higher education system, such as its internal and external environment and their elements; identifying and studying the factors of increasing the competitiveness of higher education in the context of ensuring the state's sustainable development. A graphic method was also used to visualize the levels of competitiveness and their interdependence in the field of higher education; higher education system and influencing factors on increasing its competitiveness within the framework of the state's sustainable development concept.

# Results

conditions of the current the In information society development, the intellectual component is of decisive importance. Achievements of education and science, their competitiveness are at the basis of ensuring the well-being of the population.

Currently, the domestic system of higher education, being at the stage of transformation, faces one of the urgent problems that needs to be solved: increasing the level of its competitiveness in the context of ensuring the state's sustainable development. The concept of higher education competitiveness is a complex concept that can be considered from different positions and levels, therefore there are a large number of its interpretations, the systematization of which allows us to formulate the main provisions that are important for achieving the goal of this study:

- firstly, it is a general definition of what is included in the theory of competitive advantages, as well as theories of human, social and intellectual capital;

- secondly, it is a complex characteristic related to other concepts, such as efficiency,

quality, responsibility, including social, by which it can also be evaluated, as well as to the permanent needs of the competitiveness of society as a whole;

- thirdly, the competitiveness of higher education depends on a large number of factors, such as political, economic, social, cultural, technical, etc., which cause its significant transformations and indicate the need to study it in relation, on the one hand, to the competitiveness of the national system, and on the other - with the competitiveness of higher education institutions, their services and products, and other components of the education system (Fig. 2).

In addition, the study of approaches to understanding the concept of "competitiveness of higher education" showed that all of them share the following common points: firstly, it is the presence of a certain rivalry, competition; secondly, the ability to resist and the presence of a significant advantage in comparison with other similar business entities; thirdly, compliance with the needs of customers of a certain market.

Taking into account the above, we can say that the competitiveness of higher education is its ability to meet the market needs in educational services of its consumers, which are both applicants and the labor market, as well as the implementation of the process's quality combination of providing services and the ability to provide them effectively application through obtaining competitive advantages.



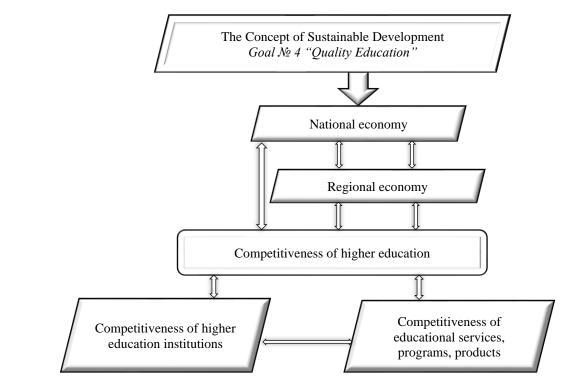


Figure 2. Levels of competitiveness and their interdependence in the field of higher education within the sustainable development concept

\*Source: generated by the authors.

Given the purpose of the research, it is of great importance to distinguish and study the factors of increasing the higher education competitiveness in the context of ensuring sustainable development, which in a general sense are understood as objective reasons that determine a certain event and a leading lever that causes certain consequences.

Higher education as an object of research has its own characteristic features, which are related to factors that reveal its goals, set of functions, place, role and status in social development. Thus, in the analysis of the factors of increasing the higher education competitiveness within the framework of the state's sustainable development concept, an important point is the understanding of the interconnectedness and mutual complementarity of its functions, which have both a general and a partial (special, characteristic only for higher education) character. In addition, the study of the higher education system in modern conditions is carried out from the standpoint of considering

it as a special component of the national economic system, as well as researching the processes of higher education as a direction of capital formation (intellectual, human, etc.) both for an individual and at the level of enterprises, regions and state.

The goals and their interrelationship, which form the directions of higher education activity and development, factors of increasing its competitiveness in the context of ensuring sustainable development at different levels of the hierarchy, lead to the need to apply a system of scientific theories and concepts. This approach makes it possible to understand the functioning of higher education as a consequence of the interaction of internal and external factors of the higher education system's development. Thus, the internal factors of increasing the higher education competitiveness should include those related to its internal environment, namely: various components and management resource aspects. As for external factors, they are divided into factors of direct influence, in particular, competitors, consumers, suppliers, etc., and factors of indirect influence: social and cultural environment, economic and political situation, etc.

The study of a large number of scientific works on this topic made it possible to identify such factors of influence on the higher education competitiveness as scientific and educational potential; forms of education; the level of competitiveness of scientific and pedagogical workers participating in the educational process; material and technical quantitative characteristics support; of educational services presented on the market; popularity and prestige of specialties; the ability to promptly respond to changes in the needs of educational market's consumers (applicants and the labor market in the form of employers). Taking into account the listed factors that influence higher education, the following points should be noted: the competitiveness of higher education is the presence of successful, leading institutions of higher education in the territory of a certain country, which, firstly, are able to meet the labor market's need for highly qualified personnel, and secondly, they are able to attract foreign applicants to study.

Based on the above, we will distinguish the following main groups of factors of higher education competitiveness in the context of ensuring the state's sustainable development: political, socio-economic (influence the pricing of educational services and products, form supply and demand in the educational market), socio-cultural (take into account when forming educational systems (cultural, religious features, family values, etc.), demographic (shape the structure of the population), innovative and technological (expand access to education, on the one hand, and reduce the demand for higher education, on the other), regulatory and legal (determine the state and prospects for the legislation development in the field of higher education).

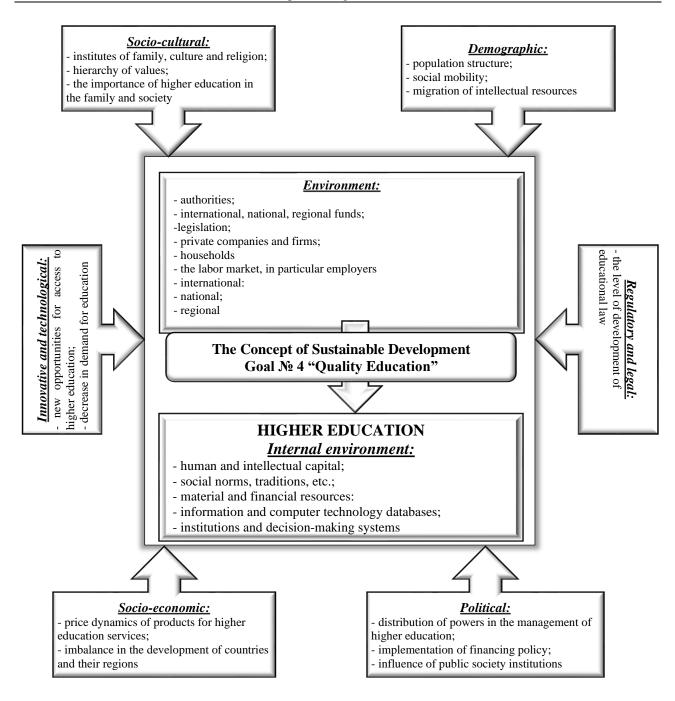
It should also be taken into account that all the mentioned factors of increasing the competitiveness of higher education within the framework of the state's sustainable development concept do not act on it individually, not separately, but comprehensively, exerting а systemic influence.

So, the system of higher education and factors affecting its competitiveness within the framework of the state's sustainable development concept are shown in Fig. 3.

In particular, it was found that the formation and further improvement of the level of higher education competitiveness must be studied at all management levels: from international and national to regional.



#### Management Theory and Studies for Rural Business and Infrastructure Development eISSN 2345-0355. 2023. Vol. 45. No. 1: 09-16 Article DOI: https://doi.org/10.15544/mts.2023.02



# Figure 3. Higher education system and factors affecting its competitiveness within the state's sustainable development concept

\*Source: generated by the authors.

## Conclusions

In modern conditions, the world, countries, regions and people face global challenges in many areas: economic – trade wars, forced migration waves; security – military conflicts and actions of some countries against others for leadership and territory; technological - the development of computerization, robotics, artificial intelligence, etc. The listed processes are also characteristic of Ukraine, which functions and develops in conditions of the democratic processes development, a full-scale war with Russia, and a competitive struggle for intellectual resources with more developed countries of the world. Under such circumstances, the national system of higher education should become not only a center of intellectual capital of the state, but also a leading direction in the formation of an answer to pressing questions of national security, economic upliftment, and increased competitiveness in the context of ensuring the state's sustainable development.

Research on the development of the higher education system in the war and postwar periods is a perspective for further research.

Acknowledgments. This research is carried out within the frame work of the scientific project "Introduction of university autonomy in the context of decentralization of free economic management, democratization of the educational process" with the support of the Ministry of Education and Science of Ukraine (state registration number 0122U002357).

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