



## ABSTRACT

on bachelor's degree qualification paper on the topic  
«INTERNATIONAL ASPECTS OF ENSURING AND CONTROLLING THE  
QUALITY OF EDUCATIONAL SERVICES IN HIGHER EDUCATION  
INSTITUTIONS»

student Olha Yeremenko  
(full name)

The main content of the bachelor's degree qualification paper is presented on 41 pages, including references consisted of 64 used sources, which is placed on 9 pages. The paper contains 5 figures, as well as 4 apps that are presented on 7 pages.

Keywords: INTERNATIONAL RELATIONS, HIGHER EDUCATION, EUROPEAN QUALITY STANDARDS, UKRAINIAN UNIVERSITIES, INNOVATIONS, EUROPEAN EDUCATIONAL SPACE, MANAGEMENT MECHANISMS, QUALITY MODERNIZATION.

The purpose of the bachelor's degree qualification paper is to analyse the mechanism of quality of educational services in universities that nurture and produce excellent human resources, and to provide the basic data necessary to develop university management strategies in order to improve the quality of educational services.

The object of research is international control and monitoring practices on the quality of higher education, which arise under the influence of global challenges.

The subject of the research is the migration of education, marketing of domestic universities and the current state of the higher education system in Ukraine.

In the process of research depending on the goals and objectives, we used relevant methods of studying economic processes, including statistical (for analysis of statistical data presented in official documents), system analysis (for theoretical and methodological substantiation of current trends in quality control of higher

education and factors of educational migration), comparative analysis, SWOT-analysis (to assess the dynamics of higher education), graphic analysis, forecasting method (for forecasting problems and prospects of quality assurance in higher education in Ukraine and abroad for the coming years).

The information base of the work is domestic and foreign authors, textbooks and manuals on selected topics, analytical reports of domestic and international, including European and Asian, organizations such as the CIEE, NAQA, CEDOS, NIAID, government statistics, website publications, scientific articles and research papers.

According to the results of the study the following conclusions are formulated:

1. Despite their differences, most countries and regions in East Asia have more and more in common in promoting and implementing activities related to quality assurance in higher education.

2. The education industry is a "meta-industry" of all industries and an area with tremendous ripple power. In the future, as each industry comes together to create new businesses, it provides human resources with creativity in the right places.

3. Typical of the Ukrainian Soviet legacy is the low level of university autonomy and, in return, rigid ministerial requirements including the technical curricula, and mandatory so-called "general courses" in Ukrainian History, philosophy, and similar subjects.

4. The reasons for entering the European education area are, firstly, to obtain a Ukrainian diploma abroad and to ensure its value, secondly, to improve the efficiency and the quality of education, and, thirdly, to increase the demand and supply of Ukrainian educational institutions and their graduates in the world market.

5. Ukraine is not a leader in ensuring the quality of higher education. This is mainly due to the degradation of some higher education institutions, signs of academic injustice, poor quality of higher education, and inadequate interaction and trust between stakeholders.

6. Online teaching is less effective than offline teaching until teachers start using effective teaching methods, that is, scientifically based methods. This is essential to

ensure quality education. Educators need to improve their teaching skills, universities need their support, and students need to demand it.

7. The introduction of new learning technologies allows increasing the volume of available educational services, to create an effective system of continuing education.

Evidence of the development and formation of distance education in Ukraine can serve as conferences, seminars, round tables on the introduction of distance education in the educational space of Ukraine, etc.

The results obtained can be used in the process of developing a strategy for the qualitative development of higher education in Ukraine and assessing the effectiveness of the current policy in the field of internal and external educational space.

Results of approbation of the basic provisions of the qualification Bachelor work was considered at:

1) Yeremenko O.O., Taraniuk L.M. The process of technical and social innovation in the context of improving the quality of higher education. *International economic relations and sustainable development*. Proceedings of the II Intern. S&P Conf. (May 21, 2021, Sumy, Ukraine), Sumy. 2021;

2) Yeremenko O.O., Petrushenko Y.M. The issue of educational migration among students of higher educational institutions of Ukraine. *International economic relations and sustainable development*. Proceedings of the II Intern. S&P Conf. (May 21, 2021, Sumy, Ukraine), Sumy. 2021;

3) implementation in the R&D "Reforming the lifelong learning system in Ukraine to prevent labour migration: a cooperative model of institutional partnership" (state registration number 0120U102001);

4) implementation in the R&D "Convergence of economic and educational transformations in the digital society: modelling the impact on regional and national security" (state registration number: 0121U109553).

The year of qualifying paper fulfilment is 2021

The year of paper defence is 2021

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE  
SUMY STATE UNIVERSITY

Educational and Scientific Institute of Business, Economics and Management  
Department of International Economic Relations

APPROVED BY  
Head of the Department

\_\_\_\_\_  
(academic degree, academic rank)

\_\_\_\_\_  
(signature) (full name)

«\_\_» \_\_\_\_\_ 20\_\_ .

TASKS FOR BACHELOR'S DEGREE QUALIFICATION PAPER

(specialty 292 " International Economic Relations " )

student \_\_\_\_\_ course, group \_\_\_\_\_

(course number )

(group's code )

\_\_\_\_\_  
(student's full name )

1. The theme of the paper is “International aspects of ensuring and controlling the quality of educational services in higher education institutions”  
approved by the order of the university from « \_\_ » \_\_\_\_\_ 20 \_\_ №\_\_
2. The term of completed paper submission by the student is «\_\_» \_\_\_\_\_ 20 \_\_
3. The purpose of the qualification paper is to analyse the mechanism of quality of educational services in universities that nurture and produce excellent human resources, and to provide the basic data necessary to develop university management strategies in order to improve the quality of educational services.
4. The object of the research is international control and monitoring practices on the quality of higher education, which arise under the influence of global challenges.
5. The subject of research is the migration of education, marketing of domestic universities and the current state of the higher education system in Ukraine.
6. The qualification paper is carried out on materials of works of domestic and foreign scientists, data of information-analytical bulletins and statistical data of international organizations.
7. Approximate qualifying bachelor's paper plan, terms for submitting chapters to the research advisor and the content of tasks for the accomplished purpose is as follows:  
Chapter 1 “Theoretical and methodological substantiation of the value of the quality of higher education in the international economic space”

Chapter 1 examines the international higher educational complex, its controlling organizations, current trends, strategies and foreign experience in the development of the international market for higher educational services from the point of view of the fourth industrial revolution.

Chapter 2 “Higher education in the labour market and educational services in the context of economic and social development of the world”

Chapter 2 is devoted to the analysis of the current state of the higher education system in Ukraine and the process of its European integration. In addition, educational migration in Ukraine and the marketing of domestic universities in the field of educational services are considered.

Chapter 3 “Directions for improving the management mechanisms of higher education on the example of Sumy universities”

Chapter 3 shows the main difficulties in the management of higher education and the specifics of overcoming them by developing, modernizing and improving the quality control system of Ukrainian education. In addition, there is a consideration of the measurement of the quality of higher education on the example of the ratings of Sumy universities.

#### 8. Supervision on work:

Chapter	Full name and position of the advisor	Date, signature	
		task issued by	task accepted by
1			
2			
3			

9. Date of issue of the task: « \_\_\_\_ » \_\_\_\_\_ 20 \_\_

Research Advisor:

\_\_\_\_\_

(signature)

\_\_\_\_\_

(full name)

The tasks have been received:

\_\_\_\_\_

(signature)

\_\_\_\_\_

(full name)

## CONTENT

INTRODUCTION.....	8
1 Theoretical and methodological substantiation of the price value of the quality of higher education in the international economic space.....	11
1.1 International higher education complex as a tool for implementing innovative educational programs.....	11
1.2 Current trends, strategies and foreign experience in the development of the international market of high educational services.....	15
2 Higher education in the labour market and educational services in the context of economic and social development of the world.....	20
2.1 Analysis of the current state of the higher education system in Ukraine and its entry into the European educational space.....	20
2.2 Educational migration in Ukraine and marketing of domestic universities in the field of educational services.....	23
3 Directions for improving the management mechanisms of higher education on the example of Sumy universities.....	30
3.1 The main difficulties in managing higher education and the peculiarities of overcoming them.....	30
3.2 Consideration of the measurement of the quality of higher education on the example of the ratings of Sumy universities .....	34
CONCLUSION.....	38
REFERENCE LIST.....	42
APPENDICES.....	51

## INTRODUCTION

Relevance of the topic. On the 21<sup>st</sup> century horizon, the demand for higher education is growing more than ever, and higher education is diversifying, while the younger generation is new to the cultural and economic development of society. It is widely recognized that higher education is essential to learning ideals and building the future.

Wherever higher education is located, financial fair conditions at the time of admission or study, improving the development of teaching staff, advanced training, education, research, improving and maintaining the quality of services, program compliance, the employment potential of graduates are the main points and challenges when concluding effective agreements. about cooperation and equal access to the benefits of international cooperation. The quality of higher education also faces new technology-related opportunities to improve the way knowledge is produced, managed, disseminated and used. Equitable access to these technologies today must be ensured at all levels of the education system. This is what forms the relevance of the research topic, in order to determine the importance of modernization and quality control of higher education and analysis of its impact on the state educational space.

The degree of the studied problem. Problems of improving, methodological, standardization and quality control of educational services in national and international educational spaces of countries are raised in the works of domestic and foreign authors. In particular, Tricia Ryan in her work "Quality assurance in higher education: A review of literature" outlines monitoring as a mechanism for quality assurance in higher education, studies quality assurance models and explores the concept of quality. In addition, this article describes a study of the effectiveness of quality assurance practices, with special attention to student participation in quality assurance [1]. Work on COVID-19 has also appeared. Kelum A.A.'s Academic Standards and Quality Assurance: The Impact of COVID-19 on University Degree

Programs examines the measures taken by universities to protect high academic standards and quality assurance procedures during this time, and assesses the challenges and impacts on student performance [3]. However, as educational standards must constantly change for the sake of progress, this topic continues to be relevant. Moreover, in a pandemic, we are dealing with new causes and consequences of educational innovations.

The purpose of the bachelor work is to analyse the mechanism of quality of educational services in universities that nurture and produce excellent human resources, and to provide the basic data necessary to develop university management strategies in order to improve the quality of educational services.

To achieve this goal, the work solved the following main tasks:

- describe the general state of the international higher education complex;
- study the external and internal factors of ensuring and controlling the quality of higher education in selected countries of the world and Ukraine;
- identify tools for the implementation of modern innovative educational programs;
- outline current trends, strategies and foreign experience in the development of the international market for higher educational services;
- analyze the analysis of the current state of the higher education system in Ukraine;
- assess Ukraine's entry into the European educational space;
- identify the main difficulties in the management of higher education and the specifics of overcoming them;
- consider the modernization of the quality of higher education on the example of Sumy universities.

The object of the study is international control and monitoring practices on the quality of higher education, which arise under the influence of global challenges. The subject of the study is the migration of education, marketing of domestic universities and the current state of the higher education system in Ukraine.

Information base of researches. The research used scientific articles by domestic and foreign authors, textbooks and manuals on selected topics, analytical

reports of domestic and international, including European and Asian, organizations such as the CIEE, NAQA, CEDOS, NIAID, government statistics, website publications, scientific articles and research papers.

Research methods. The paper uses statistical (for analysis of statistical data presented in official documents), system analysis (for theoretical and methodological substantiation of current trends in quality control of higher education and factors of educational migration), comparative analysis, SWOT-analysis (to assess the dynamics of higher education), graphic analysis, forecasting method (for forecasting problems and prospects of quality assurance in higher education in Ukraine and abroad for the coming years).

Elements of scientific novelty of the work are to determine the quality control of educational services in higher education institutions through international and domestic organizations, study the trend of educational migration among students and the author's approach to describing the main problems of improving the quality of higher education in Ukraine.

Approbation of research results. According to the results of the research, theses were published in the materials of the scientific conference: Yeremenko O.O., Taranyuk L.M. The process of technical and social innovation in the context of improving the quality of higher education. and Yeremenko O.O., Petrushenko Y.M. The issue of educational migration among students of higher educational institutions of Ukraine. International economic relations and sustainable development. Proceedings of the II Intern. S&P Conf. (May 21, 2021, Sumy, Ukraine), Sumy, 2021 and implemented within the R&D "Reforming the lifelong learning system in Ukraine to prevent labour migration: a cooperative model of institutional partnership" (state registration number 0120U102001) and "Convergence of economic and educational transformations in the digital society: modelling the impact on regional and national security" (state registration number: 0121U109553).

Year of qualification work – 2021

Year of work protection – 2021

# **1 THEORETICAL AND METHODOLOGICAL SUBSTANTIATION OF THE VALUE OF THE QUALITY OF HIGHER EDUCATION IN THE INTERNATIONAL ECONOMIC SPACE**

## **1.1 International higher education complex as a tool for implementing innovative educational programs**

In the age of the educational movement, when there is a rapid increase in the movement of populations with higher education across borders, along with the international movement of transnational corporations and human resources, it turns out that the quality of higher education provided by universities with different systems is insanely important and depends mainly on the country. However, the interest of the international community is also growing day by day.

A prime example could be the meeting of the Bologna Process (9-20 May 2005), when the EU national education ministers adopted the ENQA report (Standards and Guidelines for Quality Assurance in the European Higher Education Area: 2005). In addition, the UNESCO and OECD guidelines on “Quality Assurance in International Higher Education”, approved by the OECD Board of Directors in December of the same year, still guarantee the quality of higher education. This is an international norm that takes into account the concentrated opinion of the international community [1; 2; 3].

The European Association for Quality Assurance in Higher Education (ENQA, or European Network for Quality Assurance in Higher Education) is an international association that brings together the European Higher Education Area (EHEA) organizations dedicated to quality assurance in higher education. ENQA has 52 full members (2 candidate members) and 59 affiliated members. The Association is part of the so-called European Association E4, which is a consultative member of the mentioned Bologna reforms [4]. On June 18, 2020, the ENQA board reviewed the application of the National Agency for Quality Assurance in Higher

Education of Ukraine (NAQA) and granted it the status of an Affiliated Member of ENQA [5].

It was achieved that the processes of strengthening the competitiveness of higher education, quality management, and quality assurance of higher education have become the common interests of universities, states, and the whole international community. In particular, over time, it will become more real than universities providing educational services, the quality of which is not guaranteed, will be ignored by consumers of higher education at home and abroad. To become a university that is not neglected by consumers of higher education, efforts must be made to manage quality through continuous internal self-assessment of the university and be regularly externalized by an independent third party in order to obtain quality assurance, or in other words public opinion.

In European science little attention is paid to Asia, but from the perspective of world globalization, it is impossible not to mention this. In many countries and regions of East Asia, these higher education institutions are mainly directly subordinate to the Ministry of Education or the relevant central departments. For example, in August 2004, China established the Higher Education Teaching Assessment Centre under the Ministry of Education. This centre is an administrative agency of the Ministry of Education. The main responsible person is appointed directly by the Ministry of Education. In addition, the main budget comes from government funding [6]. In 2000, Japan reorganized its degree awarding institution (NIAID) which was reorganized in 2016 to conduct an accreditation assessment for all types and levels of higher education institutions in Japan, including universities, junior colleges, technical colleges and graduate students of law faculties into the Japan University Degree Assessment and Award Institute (NIAID-UE). This institution was later transformed into an institution for the award of degrees and support for university reform (NIAID-QE) [7; 8]. In addition to retaining the functions of recognition and awarding of degrees in the past, the institution is more actively involved in university evaluations and higher education provision. In addition, in most of the countries and regions of East Asia, more and more

professional appraisal institutions for higher education, third-party appraisal institutions, and other similar legal entities have appeared in recent years. These institutions and groups are directly or indirectly involved in quality assurance activities of colleges and universities through peer review, external assessment, or third-party assessment of colleges and universities. In this respect, typical examples are Japan, South Korea, Taiwan in China, etc.

In addition, many countries and regions in East Asia have established a tiered quality assurance system for higher education. These measures are mainly aimed at setting different minimum standards for newly built colleges and universities to ensure the quality of colleges and universities. These activities typically include the institution's internal self-assessment and activities carried out by external or third-party certification and assessment agencies. Among them, accreditation is to verify the compliance of existing higher education institutions with current national standards. The assessment is mainly intended to improve the quality of education and research activities and increase the transparency and efficiency of university governance and management [9].

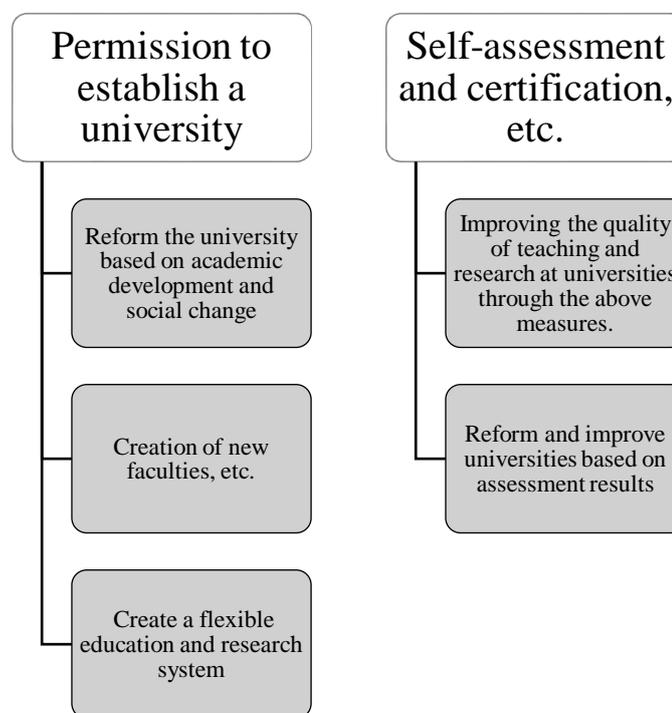


Figure 1.1 – Japanese quality assurance system for higher education

Source: Ministry of Education, Culture, Sports, Science and Technology of Japan [10]

Figure 1.1 shows Japan's higher education quality assurance system, which clearly illustrates the current national higher education quality assurance system in most countries and regions in East Asia.

In Japan, preschool education standards are formulated taking into account the possible impact of academic development and social change on universities. These standards can be dynamically adjusted to create a flexible system of higher education and research. Post-establishment assessment is mainly aimed at improving the quality of education and research through new quality assurance methods such as internal self-assessment and external certification assessment. In most cases, these methods place more emphasis on reforming and improving universities based on external or third-party assessments [10; 11].

Similar to the aforementioned institutions in Japan, the Korea Council for University Education (CUE) has its own assessment indicators and is solely responsible for ensuring the quality of member universities. The Korean Universities Board of Education is an accreditation agency appointed by the South Korean Ministry of Education that performs activities such as university accreditation and university evaluation per relevant higher education and higher education accreditation laws and regulations. Based on rigorous self-assessments by universities, the institution verifies and analyses the results of university self-assessments based on peer review and on-site assessment. The relevant council bodies will inform the university if it has been certified through a final assessment [12].

Finally, despite their differences, most countries and regions in East Asia have more and more in common in promoting and implementing activities related to quality assurance in higher education. On the one hand, this is due to the impact of globalization and internationalization since the 1990s, as mentioned above; on the other hand, this is because almost all countries and regions of East Asia have learned from the United States and Great Britain in building a new type of quality assurance system for higher education [13].

## 1.2 Current trends, strategies and foreign experience in the development of the international market of high educational services

First, it should be noted that the global education industry of our time is evolving thanks to the flow of realism, connection, intelligence, and convergence. If we define the 4<sup>th</sup> industrial revolution in one sentence, then we can say that the new industrial revolution, in which everything is interconnected and focused on customers (consumers), has greatly changed the field of higher education. Given this fact, it is expected that the future social changes that students who are consumers of educational services will experience will be so widespread that they cannot even be compared with changes in the past.

In the future, the development of Information and Communication Technologies in education or ICT is expected to evolve from a traditional form of textual communication at a fixed time and place to a form of realistic and experiential learning that uses augmented and virtual reality beyond physical limitations. In addition, due to industry “connectivity”, learners form networks with diverse constituencies such as mentors and training managers, employer representatives, and other learners, and receive more extensive and responsive feedback from network members. In this process, it is very likely that the goal of education is not only to achieve individual academic achievement and graduation but also to become a talented individual with a civil or global competence who lives harmoniously as a member of society [14].

It is mistakenly believed that the automation process is applicable only to technical manufacturing professions. Canadian Elantis Solutions Inc. is a great example of this. The field of education changed rapidly due to the COVID-19 epidemic, and educational institutions had to adapt quickly to remain competitive.

According to the Department of University Affairs in the fall of 2020, some Canadian governments have mandated educational institutions to reduce classroom utilization by up to 30%. But already this fall, due to the positive dynamics of

recovery and the correct policy to combat the virus, universities are planning to return to 50 percent occupancy [15].

The education industry is a "meta-industry" of all industries and an area with tremendous ripple power. In the future, as each industry comes together to create new businesses, it provides human resources with creativity in the right places [16].

The megatrend of the global education industry is defined as awareness, connection, intelligence, and convergence (Figure 1.2).

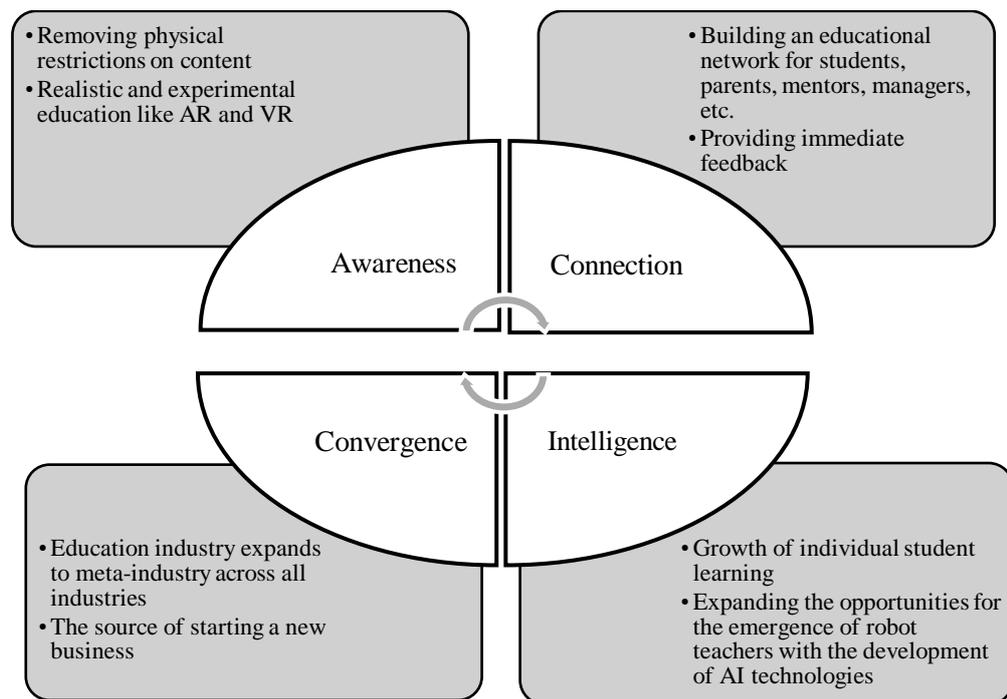


Figure 1.2 – Four Mega Trends in the Global Education Industry

Source: Samjung KPMG Economic Research Institute [17]

Note 1. "Meta-industry" refers to a core industry that enhances the competitiveness of other industries, and innovation in education through technological development accelerates innovation in other industries

Education is an activity that teaches and learns the knowledge, skills, and values of individuals or groups in the desired direction of the target audience, and is one of the important areas in which the provision of rich and effective information is important. Thanks to the development of ICTs, the limitations of tools that can be used in the educational field have all but disappeared, so different types of learning that were not previously used, such as distance learning based on experience and

realistic education, have become possible. In particular, as the exchange and dissemination of knowledge rapidly increase in the information age, the differences between educators and teachers are gradually blurring, and the existing one-way teaching method cannot correspond to the changes of the new era. As the “implementation” progresses, the role of traditional schools delivering fragmented knowledge will gradually diminish, and they will play the role of a learning platform for realizing the holistic education required by society through the provision of diverse and creative experiences.

“Awareness” of educational services can be realized at every stage of the value chain, which is delivered to learners via networks, mobile devices, and displays after educational content is published on the platform. In other words, “implementation” not only means changes in the display that students face but also means technological change throughout the value chain and innovation in user experience implemented through them, so the business value can be said to be great as well [14].

Various remote platforms are emerging across all industries and a new smart business model based on O2O (Online-To-Offline) is in the spotlight. Recently, when the need for learning has become commonplace regardless of age and gender, an online platform has emerged that provides various offline learning opportunities, especially in Ukraine, this became noticeable during the Covid-19 epidemic. The focus is on a business model that lowers exploration costs and maximizes customer value by connecting individuals and institutions through the platform, moving away from the traditional teaching method of direct attendance at a university or academy.

It is expected that this "connection" will have a great impact on the education sector. With the proliferation of the on-demand economy, the existing teaching method, in which teachers and students meet and communicate at specific times, is being transformed. Students receive real-time feedback on their learning outcomes, anytime, anywhere, as well as new learning assignments and learning expressions, and the physical constraints of time and space disappear. As a member of a learning network that includes not only teachers and other learners, but also employers,

mentors, and learning managers, learners will face new opportunities for growth they have never experienced before through active interaction and knowledge sharing with others [14].

We believe that the best phenomenon in the modern educational process is the emergence of the “sharing economy” service, where everyone can become a teacher or a student. The Sharing Economy is an open online business model in which a number of people share goods, space, expertise, and talent with each other through collaboration. It is also referred to as the “freelance economy” because all transactions are carried out through countless distributed providers such as citizens and individual business owners. The sharing economy operates primarily on multiple platforms that connect providers and consumers of products and services to each other [14]. The supplier side discloses surplus assets to the platform and the business profits generated by the assets are calculated as commissions, and the consumer side pays a kind of commission (usage fee) in exchange for receiving products and services through the platform. Thus, the core competencies of the sharing economy platform will be operational capabilities, which provide a lower marginal cost of surplus assets, and service capabilities, which enable the provision of innovative products and services across assets [16].

An example of using this thing at Sumy State University can be the recent international educational platform the Virtual Academic Mobility Program "International Relations and Global Leadership" in conjunction with Washington State University (Washington, USA), which took place from 25.01.2021 to 30.04.2021 (Appendix B).

In addition, with the development of intelligent technologies in the era of the 4th industrial revolution, intelligent objects will appear that imitate all human production activities, including cognition, thinking, judgment, action, and control, which will affect all areas of industry. For example, thanks to the development of the Internet of Things (IoT) technology, it has become possible to collect huge amounts of data for the development of intelligent algorithms, and this information can accumulate. In addition, thanks to the development of artificial intelligence and

big data technology, and improved intelligence algorithms at the "cognition" level have made it possible to perform a simple analysis of any event [18; 19].

The importance of Internet activity and openness of universities is evidenced by the introduction in 2004 by the National Research Council of Spain of the Webometrics rating, which estimates more than 24 thousand universities of the world (including 323 Ukrainian). The rating methodology is based on the analysis of the university's representation in the global information space and indirectly allows to assess the educational and research achievements of universities. Universities are evaluated using four indicators: presence, visibility, transparency and excellence. With the help of independent web indicators and a scientifically sound model, all aspects of the university's activity are indirectly assessed: scientific, educational, cultural, social, sports and others. This distinguishes this rating from other Internet ratings [20].

In the era of the 4th industrial revolution, the manufacturing industry will experience the phenomenon of "convergence", in which areas of the surplus service industry converge and boundaries are violated. As the "platform business model" emerging from industry convergence gradually spreads, fundamental technologies such as artificial intelligence and cloud computing are being actively adopted, which in turn will accelerate the trend of convergence between industries. Most businesses are expected to evolve into an Integrated Platform for customer-facing businesses.

In 2020, the Ministry of Education of Ukraine identified «innovation» as one of the important directions of internal policy in the field of education in universities for 2021 and proposed a detailed innovation policy to achieve the national goal - to create a model of an autonomous institution of higher education, which will have full right to dispose of funds. and modern transparent opportunities for attracting grant investments, to promote the development of academic mobility by increasing the level of competitiveness of higher education institutions [21].

## **2 HIGHER EDUCATION IN THE LABOUR MARKET AND EDUCATIONAL SERVICES IN THE CONTEXT OF ECONOMIC AND SOCIAL DEVELOPMENT OF THE WORLD**

### **2.1 Analysis of the current state of the higher education system in Ukraine and its entry into the European educational space**

Ukraine is a large European country with a population of 40 million, of which more than 70% have higher education. However, society and the economy do not fully use the potential of Ukrainian higher education. According to “The Good Country Index 2020”, Ukraine ranks 76<sup>th</sup> out of 153 countries, and the geographic neighbours that directly compete with the educational services market are significantly higher: Poland – 31<sup>st</sup>, and Germany – 5<sup>th</sup>. In the rating "Investments in the development of science and technology" Ukraine ranks 1<sup>st</sup>, Poland – 13<sup>th</sup>, Germany – 23<sup>rd</sup>, and Great Britain – 5<sup>th</sup>. However, such a high place in Ukraine is explained by a significantly lower level of GDP per capita than the results of the development of science and technology [22].

Since 2006, in the universities of the Ministry of Education and Science of Ukraine, admission to study has been carried out on the basis of the results of an Independent External Evaluation (Зовнішнє Незалежне Оцінювання – ZNO). ZNO is a standardized test that is mandatory for all high school graduates wishing to enrol in higher educational institutions in Ukraine. It is conducted by the Ukrainian Centre for the Assessment of the Quality of Education in such subjects as Ukrainian language and literature, history of Ukraine, mathematics, biology, chemistry, physics, geography, English, German, French, Spanish and Russian. Since the introduction in Ukraine in 2008 of external independent assessment (ZNO) as a prerequisite for joining ZNO, the number of those who took part in ZNO has been growing, and since 2015 it has been at least 95% [22; 23].

Secondary education certificates obtained under the old system, secondary vocational and technical school graduation certificates and secondary vocational

education certificates also give the right to apply for admission to higher educational institutions in Ukraine.

The first cycle usually lasts 4 years (240 ECTS) and ends with the issuance of a Bachelor's degree. The European Credit Transfer and Accumulation System (ECTS) is a tool for the European higher education sector to increase the transparency of learning and processes. This can help students move between different countries and keep abreast of their academic qualifications and length of study abroad. But training can be longer depending on the field of study. The Bachelor's degree gives the right to enter the second cycle of study in Ukraine.

The second cycle lasts from 1 to 2 years (60-120 ECTS) and ends with a master's degree. A master's degree is by definition more "scientific" than a specialist degree. However, both diplomas in Ukraine give the right to enter doctoral studies (the so-called postgraduate study) and receive a PhD degree [24].

A specialist diploma can also be the basis for starting training in the second cycle in another speciality and obtaining a specialist in training diploma. A specialist diploma in further education in Ukraine gives the right to enrol in doctoral studies and receive a candidate of science degree [24].

Higher education in Ukraine is quite strong, there are more than 100 world-famous universities. For example, Kyiv University, which is among the ten best universities in Europe and the top 20 universities in the world; and Kyiv Institute of Technology (now Ukrainian National University of Science and Technology); Kharkiv University, founded in 1805. There is also the Kyiv Academy of Arts and the L'viv Academy of Arts, the world-famous Music Academy named after P.I. Tchaikovsky, Kyiv Academy of Music, etc.

Ukraine has been part of the Bologna area since 2005, but the system and the outdated faculty are post-Soviet. Typical of the Soviet legacy is the low level of university autonomy and, in return, rigid ministerial requirements including the technical curricula, a schooled university education with groups of students who, like school classes, attend the same courses over the entire period of study, mandatory so-called "general courses" in Ukrainian History, philosophy and similar

subjects. And a strong separation of teaching and research, with the latter taking place at the academies of science. The reasons for entering the European education area are, firstly, to obtain a Ukrainian diploma abroad and to ensure its value, secondly, to improve the efficiency and the quality of education, and, thirdly, to increase the demand and supply of Ukrainian educational institutions and their graduates in the world market.

Based on the analysis of the dynamics of higher education development in Ukraine for 2014-2019, taking into account the opinion of experts of working groups of the Ministry of Education and Science on strategy development and taking into account global trends in higher education, such strengths, weaknesses, opportunities, and threats were identified, which may affect the further development of higher education in Ukraine (Appendix C).

Ensuring the quality of higher education is a modern requirement, an important principle of the Bologna Declaration, and a clear priority of academic policy and public education in Europe and other developed countries. Unfortunately, as we can already see, Ukraine is not a leader in ensuring the quality of higher education. This is mainly due to the degradation of some higher education institutions, signs of academic injustice, poor quality of higher education, and inadequate interaction and trust between stakeholders. The task of changing this situation was set by the National institution for quality assurance in higher education (NAQA) [27].

Compliance with the standards for assessing the quality of educational programs in accordance with European standards is called ESG-2015 (European standards and recommendations-2015). In the context of the Bologna Process and Ukraine's European integration, the new certification process introduced in Ukraine in 2019 is a logical and necessary step. As early as 2003, the Minister of Education of the Bologna Process started in the Berlin Communiqué that common general standards and recommendations for quality assurance should be developed. This is a crucial step in achieving the goal of the Bologna Process - to ensure the quality of higher education by establishing common values and best practices. The first edition

of the European standard was approved in 2005. The updated standard was adopted in Yerevan at a meeting of 47 European Ministers of Education in 2015, ten years later, with the aim of reforming and improving the quality system of higher education in all countries of the Bologna Process, especially in Ukraine. In developing the general rules for the accreditation of curricula, in particular the evaluation criteria, the National Agency aimed to ensure full compliance with "European standards and guidelines for quality assurance in the European Higher Education Area" (ESG-2015) [28; 29].

The National Agency seeks advice and evaluations from international and national experts on the external evaluation of their procedures, documents, and activities [30]. Therefore, in 2020, in the first half of the year, the National Agency began to organize meetings with colleagues from Latvia, Germany, Italy, Georgia, Poland, Lithuania, France, Kazakhstan, Belgium, Estonia, Turkey, and Cyprus; cooperated with QAA and the British Council in training; cooperates with such partners as the National Erasmus Bureau of Ukraine, the US Council on International Education, the British Council of Ukraine, the US Agency for International Development, the OSCE and others. In addition, through ENQA and INQAAHE, government agencies turn to international experts to develop agency certification rules and obtain expert reviews and recommendations from Cyprus, Lithuania, Estonia, France, and Sweden [28].

## 2.2 Educational migration in Ukraine and marketing of domestic universities in the field of educational services

During the 2013/2014 academic year, 69,969 foreign students studied in Ukraine (Figure 2.1). With the beginning of the military conflict and the invasion of the Russian Federation in Ukraine in 2014, their number decreased by 17.5%, i.e. reached 66,310 people in 2017. In turn, in 2018 the number of foreign students

increased again, reaching 75,605 people (increased by 11.4%). Interestingly, in 2019/2020, this figure reached 80,470 foreign students [31].

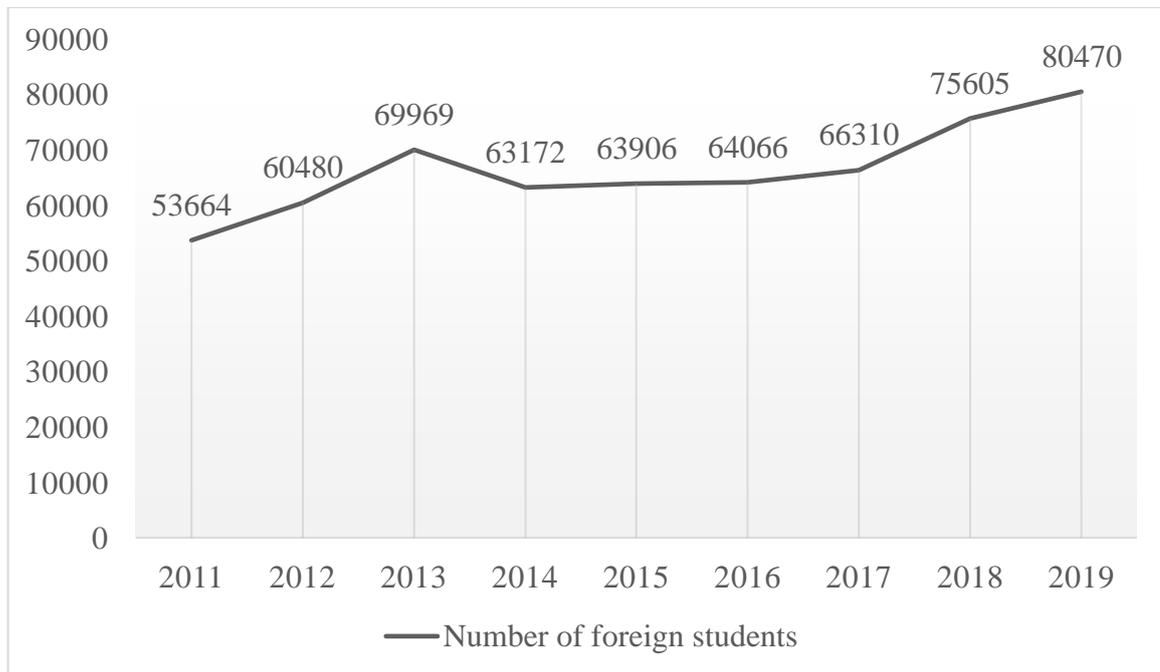


Figure 2.1 – Number of foreign students in Ukraine (2011 - 2019)

Source: Ministry of Education and Science of Ukraine [31]

The increase in the number of foreign students in Ukraine has a positive effect on the economy, as almost everyone studies on a contract basis, i.e. they are their own source of funding, and the cost of their education is usually higher than that of Ukrainian students. At the same time, the global market for foreign educational services is highly competitive, tough, and global. Failure to take timely and appropriate legislative and administrative decisions to ensure access to higher education and failure to create innovative opportunities may lead to the loss of the currently leading position of the university in the global market of educational services.

Foreign students in Ukraine are mainly from Asia (including Central Asia) and Africa. The level of secondary education in these countries is not always satisfactory, which creates a number of problems in ensuring the level of higher education for students. The promotion of Ukrainian universities in this powerful

market will strengthen the country's position in the global educational space and provide stability to the higher education system [31].

In total, foreign students from 154 countries study in Ukrainian universities. Various sources of statistics show that the largest share of foreign students are citizens of India (19.78%), Morocco (9.77%), Azerbaijan (8.24%), Turkmenistan (6.66%), Nigeria (4.70) %, Egypt (4.51%), Turkey (4.30%), China (3.60%), Israel (3.25%) and Georgia (3.17%). A total of 32.02% of foreign students come from other countries [32]. A complete list of countries of origin of foreign students is given in Appendix D.

After graduation, employment opportunities are low, and sometimes the quality of education, which allows the most willing and ambitious young people to get into foreign universities. The trend of "educational emigration" is exacerbated by the aggressive policy of attracting young Ukrainians to education and facilitating admission to foreign universities. Between 2008 and 2017, the number of Ukrainians studying abroad more than tripled from 24,254 to 79,253 [33].

Poland was the main country for Ukrainians to study from 2008 to 2017 (Figure 2.2). During this period, the number of Ukrainian students in the country increased from 2,831 to 33,370, almost 12 times more. These students are a major part of Polish universities. Sociologists and scholars associate this phenomenon with similar cultures, Poland's accession to the EU, accessibility, many courses and programs, and most importantly, the prospect of employment in the EU. It should also be noted that Poland annually creates more favourable conditions for Ukrainian students, as most Polish students study abroad in other European countries [34; 35].

In addition, Germany is very popular among Ukrainian students, and the number of people who went there during the same period increased from 8,557 to 9,638, or 12.6%. The main advantages of this option are the quality of education and free education in state universities, but almost exclusively in German [36].

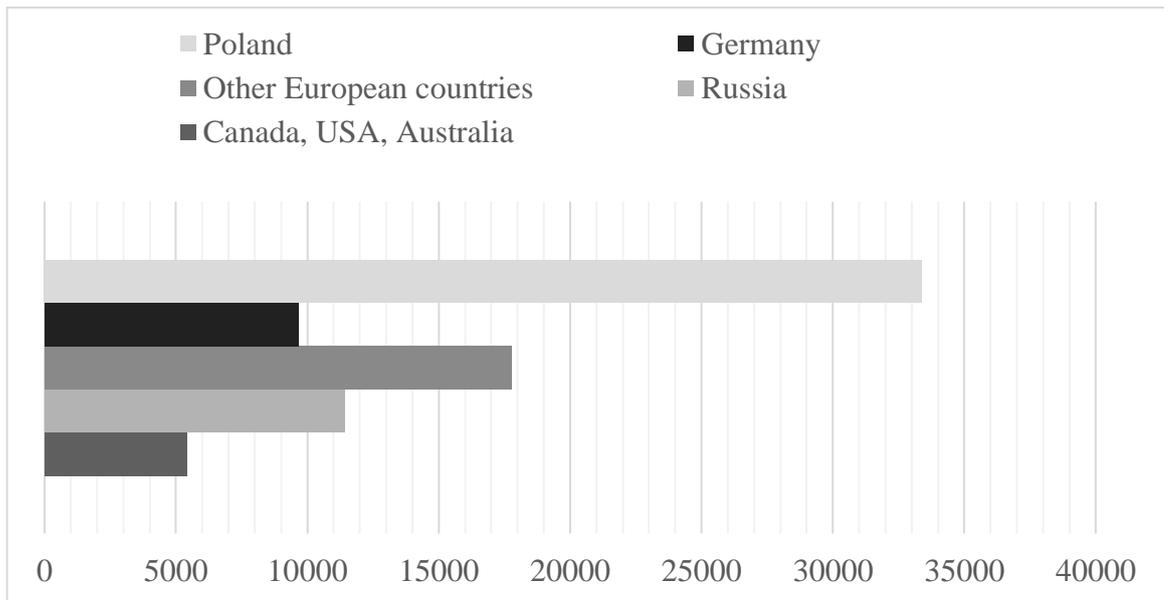


Figure 2.2 - Number of Ukrainian students abroad, 2016-2017 academic year

Source: CEDOS. Analytical centre [37]

Ukrainian students also migrate to Canada, Italy, the Czech Republic, and the United States, but their growth rates are not very fast. In addition to these countries, Ukrainians also have higher education in Spain, Austria, France, Hungary, Great Britain, Bulgaria, Switzerland, and many other countries [36].

Such current trends pose the greatest threat to the restoration of the social, cultural, and professional capital of society and the economic potential of the country for innovative development.

A recent British Council report, *International Student Mobility by 2027: Local Investment and Global Outcomes*, predicts that the flow of international students will slow down over the next ten years and that competition between overseas institutions will rise to new heights [38].

In the long run, most of these students will remain to work abroad, and the economy will lose skilled workers, which will negatively affect GDP, the tax budget, and economic development. It is worth remembering that Ukraine has invested heavily in youth development, and local budgets have financially supported their schooling and other expenditures (Figure 2.3). From an economic point of view,

if we assume that these students study in Ukraine, they additionally brought more than 1 billion Ukrainian hryvnias to the higher education system (about 67,000 students would pay an average tuition fee of 15,000 hryvnias) [39].

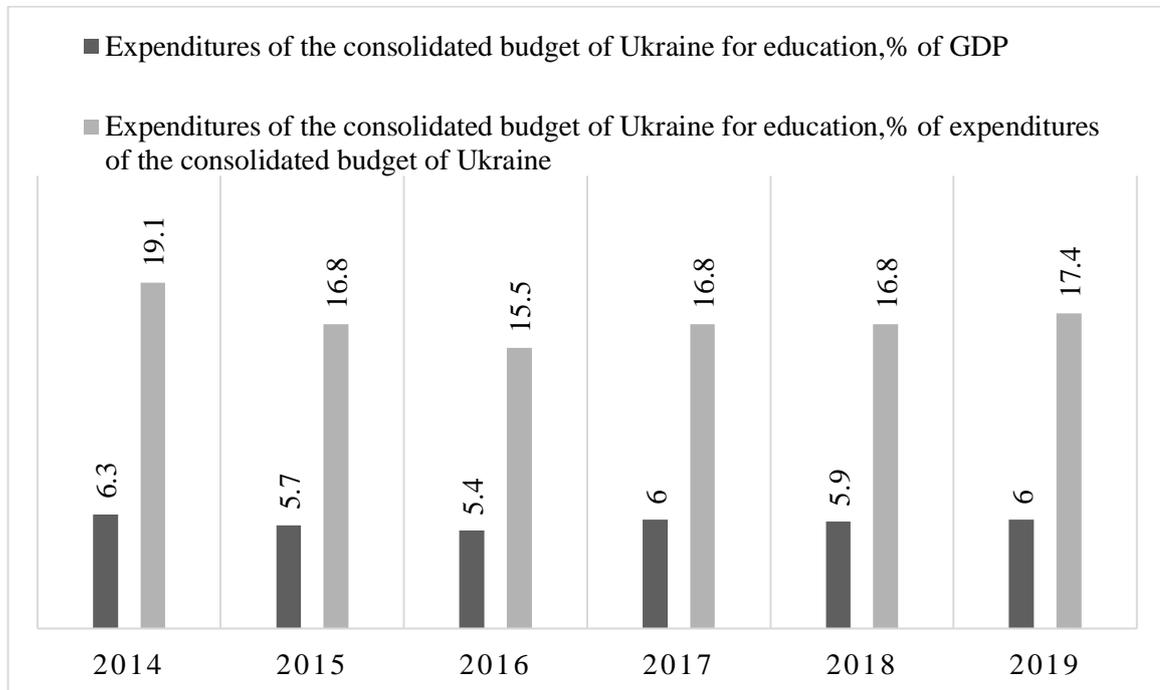


Figure 2.3 – Expenditures of the consolidated budget of Ukraine for education in 2014–2019, %

Source: State Treasury Service of Ukraine [40]

Figure 2.3 shows that in 2014-2019, the ratio of GDP to single budget expenditures on education in Ukraine decreased (from 6.3 to 5.4%). Since 2017, the situation has improved – relative and nominal expenditures on education have increased significantly compared to 2016. Despite growing demand in the defense sector due to the conflict with Russia, the state is looking for opportunities to finance education. However, as required by Article 78 of the Ukrainian Law on Education, the share of education expenditures in the consolidated budget has not yet reached 7%.

Expenditures on education in 2019 amounted to 239,437 million US dollars (6.0% of GDP or 17.4% of total budget expenditures of Ukraine). By the way, in 2018 it amounted to UAH 216.79 million (5.9% of GDP or 16.8% of total

expenditures of the consolidated budget of Ukraine). In other words, the Ukrainian government provided financial support to the education sector at the level needed to carry out reforms, even during the crisis [25; 40].

External and internal marketing and interactive marketing are needed in the field of educational services. External marketing determines the work of higher education institutions in the formation of educational services, setting the price of training, distribution, and supply of services to consumers, internal marketing - work on training and motivation of employees of higher education institutions, aimed at improving the quality of educational services [40].

Interactive marketing determines an employee's ability to provide quality service. Users are concerned not only with the integrity of the implementation (for example, whether the student has acquired the necessary knowledge and qualifications), but also with the quality of functionality (for example, the involvement and friendliness of teachers and leaders).

Consumer orientation is a key principle and the main target setting of the organization of educational activities. Groups of consumers of educational services: entrants, students, bachelors, masters, graduate students. Assessing the degree of consumer satisfaction requires constant monitoring, which can be implemented in the form of marketing research. The most effective methods of gathering information in this situation are surveys, interviews, questionnaires. The information obtained also helps higher education institutions to forecast demand, identify potential consumers among applicants, graduates, and those wishing to receive additional education. In the structure of a higher education institution, in addition to the marketing department, the following should collect information: the admissions committee, the student employment center, individual teachers, and students as a research activity [41].

Forecast of demand from current year's graduates is, of course, important for every higher education institution. However, this type of research usually does not cover other categories of potential consumers: graduates of previous years, consumers wishing to obtain a second or additional education.

An important role in deciding on the personalization of potential consumers is played by the selection committee. The main amount of information about consumers of educational services is collected during the introductory campaign. It is at the stage of work of the admissions committee in most institutions of higher education that begins to form a database of consumers, which is then used to segment applicants by various criteria. Such segmentation allows further differentiation and systematization of information about applicants in order to develop certain marketing solutions [42].

It is known that the best institutions of higher education regularly monitor the quality of educational services provided, using a comparative study of competitors, covert inspections, a study of student composition, a system of complaints and suggestions, letters to university management.

The work of marketers to create a mechanism for studying the composition of students and their satisfaction requires flexibility and does not tolerate self-confidence, otherwise there is a risk of embarking on the wrong path of quality improvement.

### **3 DIRECTIONS FOR IMPROVING THE MANAGEMENT MECHANISMS OF HIGHER EDUCATION ON THE EXAMPLE OF SUMY UNIVERSITIES**

3.1 The main difficulties in managing higher education and the peculiarities of overcoming them

The status of knowledge as the highest goal of man has noticeably lost its weight over the last century, although the Bologna reform is a response to this state of affairs rather than the cause of the "Knowledge Society Model", which is gradually gaining ground in Europe. Accordingly, when knowledge becomes widespread, it cannot grow according to the elitist model of disinterested "knowledge for the sake of knowledge itself." It is clear that this irritates the proponents of the elitist model. At present, this is the only way to reform education in such a way as to increase social harmony and economic growth on the European continent.

Unfortunately, at many universities, teachers still force students to manually write articles or rewrite course materials before grading. This "writing" takes place during classroom sessions and during quarantine. But these teaching methods are rightly considered ineffective. This has been confirmed by the results of several studies. For example, in the experiments of Bjork Bretzig and Raymond Kulhavi with four types of textual work, mechanical duplication of information is the least efficient way of storing information in the long term [43].

These are the following types of work:

- 1) read the text + write down after reading;
- 2) read + summarize the text and write while reading;
- 3) reading text + mechanical literal writing of key ideas;
- 4) read the text without notes.

Mechanical repetition of text does not help students to critically interpret what they are reading. Online teaching is less effective than offline teaching until teachers

start using effective teaching methods, that is, scientifically based methods. This is essential to ensure quality education. Educators need to improve their teaching skills, universities need their support, and students need to demand it.

Insufficient funding for higher education affects the financial condition of teachers. According to a sample survey in 2016, the average monthly salary of freelance teachers was 117.0% of the total average salary in Ukraine, and the average monthly salary of employees with higher education in the economy as a whole was 36.0% of the positive difference. Therefore, there is a large wage gap between the higher education sector and the rest of the economy, due to existing tariffs and reduced motivation to study (as could be partly seen in section 2.2).

Salaries of scientists and educators or scientific and pedagogical staff of the Universities of Ukraine are much lower than in the leading countries. The annual salary in 2017/2018 of the most qualified staff – professors in Ukraine amounted to 5.7 thousand dollars of the USA, in Great Britain – 116.7 thousand dollars, in Germany – 99.5 thousand dollars; teachers (lecturers) – 4.7 thousand dollars in Ukraine, 54.2 thousand dollars – in Great Britain, 58.8 thousand dollars – in Germany [25; 44].

The share of expenditures on higher education as a percentage of consolidated budget expenditures from 2015 to 2018 decreased from 4.6% to 3.5%, and as a percentage of GDP decreased from 1.6% in 2015 to 1.3 % in 2018 and up to 1.2% in 2019. Such volumes correspond to the level of 2016 of the EU-OECD countries, but due to the existing differences between the higher education systems of different countries, a clear comparison is impossible. Public spending on higher education as a percentage of public spending on education in Ukraine as a whole is 25% and corresponds to the level of developed countries with high incomes: in Germany – 26%, Poland – 23%, Great Britain – 26% [25].

An indicative indicator is a cost per student of the university. Thus, in Ukraine, in nominal terms, the cost per student of the Universities from 2015 to 2019 increased more than one and a half times – from 19.3 to 30.4 thousand UAH [45]. However, given the devaluation of the hryvnia during this time, they not only did

not increase but also decreased significantly. Government spending per student as a percentage of GDP per capita in 2016-2017, according to the World Bank, in Ukraine was relatively high – 34.5%. For comparison: in Germany, these expenditures are 33.6%, Poland – 25.4%, Great Britain – 38%. But due to the low level of GDP per capita in Ukraine, the amount of funds is insufficient. Compared to other countries in the world, expenditures per student in Ukraine are the lowest, in 2016 they amounted to 0.86 thousand dollars, in Great Britain – 16.9 thousand dollars, Germany – 14.25 thousand dollars, Poland – 3.1 thousand dollars [25].

The amount of funding per person of the estimated contingent of applicants, taking into account the indices of specialties, levels of higher education, and forms of obtaining it in 2019 differed significantly: its minimum level was 16.3 thousand UAH, and the maximum – 85.6 thousand UAH, i.e. the ratio was 5.2 times. This problem should be partially solved by a new mechanism for allocating state budget expenditures, according to which the planned gap in 2020 will be 4.5 times. In order to provide opportunities for free economic education to bring tuition fees in certain specialties in line with the actual costs and increase the salaries of teachers, an indicative cost of higher education has been introduced [45; 46]. But these innovations have been criticized by a large part of the University as not corresponding to the real state of solvency of the population.

Funding for higher education has systemic shortcomings, so it remains ineffective, and HEIs are constantly short of funds to ensure their functioning and development.

Research work in universities, their connection with scientific institutions is one of the biggest problems lately. The unsatisfactory state of research work affects the activity of applicants for higher scientific, educational, and scientific levels, which should be the main human resource of research. From 2010 to 2019, the number of free educational institutions that provide postgraduate training in Ukraine decreased by 9.3% (226 institutions), but there were more institutions that teach doctoral students – by 4.7% (168 institutions, the maximum number in 2015 was 177 institutions). To some extent, the instability of the number of institutions that

train graduate and doctoral students, as well as have specialized councils, is due to changes in the order of awarding degrees.

Ukrainian youth is in no hurry to dedicate themselves to science – from 2010 to 2019 the number of graduate students in Ukraine decreased by 19.5% (23 thousand people), the number enrolled in 2019 decreased compared to 2010 by 22.8% (6 780 people). The total number of doctoral students decreased by 24.2% (937 people), enrolled – by 9.7% (435 people) [25].

Hearty teachers, who were serious about maintaining the quality of the learning process during quarantine, spent much more time preparing online lessons than before. At the same time, there were people who translated communication with students in writing, gave them a lot of paperwork, and actually refused to take lessons. There was almost no contact with the students. On the other hand, the extent to which teachers participate in distance learning does not affect their salaries. In this situation, the question of fair wages in universities arose again. Today, universities are connected to the salary system and cannot determine salaries based on teachers' assessments. The quarantine has just confirmed that universities should have more independence in determining salary levels [47].

The introduction of new learning technologies allows increasing the volume of available educational services, to create an effective system of continuing education. The possibilities and application of new generation didactic material have significantly expanded: electronic textbooks, virtual learning tools, forums, webinars, seminars and meetings online, distance learning courses, and modern systems of control and management of the learning process based on the software environment of distance learning systems. Evidence of the development and formation of distance education in Ukraine can serve as conferences, seminars, round tables on the introduction of distance education in the educational space of Ukraine, the emergence of publications on the problem, manuals, and dissertations [48].

In general, the prestige of scientific work continues to decline in Ukraine, the steady decline in the share of science funding, and the reduction of wages has led to

the fact that young people have stopped striving to study and go to work in science. Low wages, lack of social guarantees, and opportunities for scientists to realize themselves lead to the outflow of talented young people from domestic higher education institutions and research institutions [49].

### 3.2 Consideration of the measurement of the quality of higher education on the example of the ratings of Sumy universities

The question of how to measure the quality of higher education remains unresolved. However, some scientists have several suggestions of their own on how to solve this problem [50]. For example, the quality of higher education can be assessed on the basis of complex indicators established as a set of individual indicators. According to V. Bakhrushin [51], in the simplest case, such a single index is a weighted sum of each index:

$$I = \alpha_1 I_1 + \alpha_2 I_2 + \dots + \alpha_n I_n, \quad (3.1)$$

where  $\alpha_i$  is determined by a diagnostic examination and the following should be performed:

$$\alpha_1 + \alpha_2 + \dots + \alpha_n = 1. \quad (3.2)$$

This method is used to calculate and identify the best universities such as Times, ARWU, QS, Webometrics and TOP-200 University of Ukraine.

The second example is the K coefficient. This can be found in Askerov's book. The scientist believes that the new standard of human development is in the focus of attention of modern countries [52]. If the sum of the completed part (a) and the unfinished part (h) of the task (physical or intellectual) is equal to 1, you can write a

+ h = 1. The new standard is called the quality factor (K), which is determined according to the following formula:

$$K = a / h = a / 1 - a. \quad (3.2)$$

The coefficient K shows that part of the work performed (a) exceeds the part of the work in progress (1 - a). This standard is an alternative production method (percentage). K has different meanings depending on the application. For example, in assessing knowledge, K refers to the relationship between what we know and what we don't know [52].

The third example can be based on an equivalent method [53; 54]. To use qualitative methods for assessing the quality of higher education, it is necessary to develop a system of assessment indicators that would determine the degree or scale of these indicators and develop standards for the interpretation of results. It is clear that some characteristics and indicators can be assessed using formal methods, while others can be assessed only using heuristic methods.

Since in order to calculate any of the above coefficients, it is necessary to complete the process of social survey, we decided to postpone this task until the next academic year. Next year we are going to delve deeper into this comparison through a spider web diagram and, accordingly, self-assessment surveys on the following criteria:

- evaluation of scientific work;
- practical suitability assessment;
- assessment of the competence of social skills;
- assessment of competence in scientific methods;
- assessment of contact and support;
- assessment of the competence of the examination.

Sumy State University is a classic university with a wide range of specialties and research areas. International assessment confirms the quality of SSU education. According to the QS World University Rankings, Sumy State University is in the

first group (3%). According to the QSEECA University Ranking, SSU is part of the EECA. Ranked in the top 150 universities in the region (Developing Europe and Central Asia) [55].

The results of the external audit of QS show that SSU scored the highest scores (5 performers) due to the quantitative and qualitative headcount, student satisfaction with the quality of education, the availability of training and its conditions, socially oriented activities and e-learning [56].

In turn, the Sumy National Agrarian University has a Level-IV certification and prepares highly qualified specialists for agriculture with a deep study of foreign languages and informatics.

Officially recognized by the Ministry of Education and Science of Ukraine, Sumy National Agricultural University (SNAU) is a large Ukrainian higher education institution (uniRank registration range: 10,000-14,999 students). Sumy National Agrarian University (SNAU) offers courses and programs in several fields that lead to officially recognized degrees of higher education, such as bachelor's, master's and doctoral degrees [57].

SNAU has entered the so-called GreenMetric World University Rankings. It is an international ranking that measures the performance of universities on various indicators, such as infrastructure, energy and climate change, waste management, water, transport and environmental education [58].

The teaching curriculum, established in 1924, was reorganized into Sumy State 'A.S. Makarenko' Pedagogical Institute as an example. Makarenko acquired its current status and name in 1957 and 1999.

Webometrics ranking of world's universities is one of the most prestigious in the international educational environment. The results of the 2020 Webometrics survey cover more than 30,000 universities worldwide. The assessment assessed the presence of universities on the Internet, the degree of influence of university publications on global scientific progress, the content and "popularity" of the online resources of higher education, as well as the trust of Internet users in them [59; 60].

Sumy State Pedagogical University named after A.S. Makarenko has the following indicators in this direction and takes 177<sup>th</sup> place among 315 universities of Ukraine.

Sumy Regional Institute of Postgraduate Pedagogical Education is the main scientific and methodological institution of postgraduate pedagogical growth of educators in the region. Over the years of the institute's existence since 1939, more than 250,000 teachers and managers of the region's educational institutions have improved their professional level [61].

Unfortunately, the university does not appear in any state or international rankings. But, in turn, more recently, and more specifically from 2019, it has an internal rating system and shows constant initiative in interviewing students and scientific personnel. Another obstacle was the inability to open many plugins and the incorrect operation of the website.

It is necessary to add that the 21<sup>st</sup> century is considered the era of the knowledge economy. Thus, the foundation of national competitiveness is to cultivate excellent human resources to ensure competitiveness in the knowledge field. The clock for the future of higher education is moving forward. Efforts to turn the COVID-19 outbreak crisis continue this year. And the whole education world felt the importance of complex changes and high-quality educational services.

## CONCLUSION

The quality management system of education is a tool that ensures the achievement of the goals of stable functioning and development of the educational system. Since quality management of education is a component of management as a whole, it has the main functions of management: forecasting, planning, assessment of the real state of the system, decision-making, their implementation, monitoring the achievement of goals.

The quality of educational services is a social category that determines the state and effectiveness of the educational process. It is characterized by a set of indicators of various aspects of the activities of universities that ensure the development of students' competence.

In this way, the results obtained in the course of work give the chance to formulate the following conclusions:

1. Despite their differences, most countries and regions in East Asia have more and more in common in promoting and implementing activities related to quality assurance in higher education. On the one hand, this is due to the impact of globalization and internationalization since the 1990s, as mentioned above; on the other hand, this is because almost all countries and regions of East Asia have learned from the United States and Great Britain in building a new type of quality assurance system for higher education.
2. The education industry is a "meta-industry" of all industries and an area with tremendous ripple power. In the future, as each industry comes together to create new businesses, it provides human resources with creativity in the right places.
3. Ukraine has been part of the Bologna area since 2005, but the system and the outdated faculty are post-Soviet. Typical of the Soviet legacy is the low level of university autonomy and, in return, rigid ministerial requirements including the technical curricula, a schooled university education with groups of students who, like school classes, attend the same courses over the entire period of study,

mandatory so-called "general courses" in Ukrainian History, philosophy and similar subjects. And a strong separation of teaching and research, with the latter taking place at the academies of science. The reasons for entering the European education area are, firstly, to obtain a Ukrainian diploma abroad and to ensure its value, secondly, to improve the efficiency and the quality of education, and, thirdly, to increase the demand and supply of Ukrainian educational institutions and their graduates in the world market.

4. Ensuring the quality of higher education is a modern requirement, an important principle of the Bologna Declaration, and a clear priority of academic policy and public education in Europe and other developed countries. Unfortunately, as we can already see, Ukraine is not a leader in ensuring the quality of higher education. This is mainly due to the degradation of some higher education institutions, signs of academic injustice, poor quality of higher education, and inadequate interaction and trust between stakeholders. The task of changing this situation was set by the National institution for quality assurance in higher education (NAQA).

5. Ukrainian youth is in no hurry to dedicate themselves to science – from 2010 to 2019 the number of graduate students in Ukraine decreased by 19.5% (23 thousand people), the number enrolled in 2019 decreased compared to 2010 by 22.8% (6 780 people). The total number of doctoral students decreased by 24.2% (937 people), enrolled – by 9.7% (435 people).

6. A recent British Council report, *International Student Mobility by 2027: Local Investment and Global Outcomes*, predicts that the flow of international students will slow down over the next ten years and that competition between overseas institutions will rise to new heights. It is worth remembering that Ukraine has invested heavily in youth development, and local budgets have financially supported their schooling and other expenditures. From an economic point of view, if we assume that these students study in Ukraine, they additionally brought more than 1 billion Ukrainian hryvnias to the higher education system (about 67,000 students would pay an average tuition fee of 15,000 hryvnias).

7. Expenditures on education in 2019 amounted to 239,437 million US dollars (6.0% of GDP or 17.4% of total budget expenditures of Ukraine). By the way, in 2018 it amounted to UAH 216.79 million (5.9% of GDP or 16.8% of total expenditures of the consolidated budget of Ukraine). In other words, the Ukrainian government provided financial support to the education sector at the level needed to carry out reforms, even during the crisis.

8. Online teaching is less effective than offline teaching until teachers start using effective teaching methods, that is, scientifically based methods. This is essential to ensure quality education. Educators need to improve their teaching skills, universities need their support, and students need to demand it.

9. The amount of funding per person of the estimated contingent of applicants, taking into account the indices of specialties, levels of higher education, and forms of obtaining it in 2019 differed significantly: its minimum level was 16.3 thousand UAH, and the maximum – 85.6 thousand UAH, i.e. the ratio was 5.2 times. This problem should be partially solved by a new mechanism for allocating state budget expenditures, according to which the planned gap in 2020 will be 4.5 times.

10. In Ukraine, in nominal terms, the cost per student of the Universities from 2015 to 2019 increased more than one and a half times – from 19.3 to 30.4 thousand UAH [45]. However, given the devaluation of the hryvnia during this time, they not only did not increase but also decreased significantly. Government spending per student as a percentage of GDP per capita in 2016-2017, according to the World Bank, in Ukraine was relatively high – 34.5%. For comparison: in Germany, these expenditures are 33.6%, Poland – 25.4%, Great Britain – 38%. But due to the low level of GDP per capita in Ukraine, the amount of funds is insufficient. Compared to other countries in the world, expenditures per student in Ukraine are the lowest, in 2016 they amounted to 0.86 thousand dollars, in Great Britain – 16.9 thousand dollars, Germany – 14.25 thousand dollars, Poland – 3.1 thousand dollars.

11. The introduction of new learning technologies allows increasing the volume of available educational services, to create an effective system of continuing education. The possibilities and application of new generation didactic material have

significantly expanded: electronic textbooks, virtual learning tools, forums, webinars, seminars and meetings online, distance learning courses, and modern systems of control and management of the learning process based on the software environment of distance learning systems. Evidence of the development and formation of distance education in Ukraine can serve as conferences, seminars, round tables on the introduction of distance education in the educational space of Ukraine, the emergence of publications on the problem, manuals, and dissertations.

12. According to V. Bakhrushin, the quality of higher education can be assessed on the basis of complex indicators established as a set of individual indicators. Askerov believes that the new standard of human development is in the focus of attention of modern countries. To use qualitative methods for assessing the quality of higher education, it is necessary to develop a system of assessment indicators that would determine the degree or scale of these indicators and develop standards for the interpretation of results. It is clear that some characteristics and indicators can be assessed using formal methods, while others can be assessed only using heuristic methods.

13. According to the QSEECA University Ranking, SSU is part of the EECA. Ranked in the top 150 universities in the region (Developing Europe and Central Asia). Sumy National Agrarian University has a Level-IV certification and prepares highly qualified specialists for agriculture with a deep study of foreign languages and informatics. Sumy State Pedagogical University named after A.S. Makarenko has the following indicators in this direction and takes 177th place among 315 universities of Ukraine in Webometrics ranking. Sumy Regional Institute of Postgraduate Pedagogical Education does not appear in any state or international rankings. But, in turn, more recently, and more specifically from 2019, it has an internal rating system and shows constant initiative in interviewing students and scientific personnel.

## REFERENCE LIST

1. Tricia Ryan. Quality assurance in higher education. *Higher Learning Research Communications*, 5 (4). DOI:10.18870/hlrc.v5i4.257. [Electronic resource] – Access mode: <https://scholarworks.waldenu.edu/hlrc/vol5/iss4/1/>.
2. Yulia Stukalina. Main standards for internal and external quality assurance in the European higher education area (2018). DOI:10.3846/bm.2018.01. [Electronic resource] – Access mode: [https://www.researchgate.net/publication/327742092\\_MAIN\\_STANDARDS\\_FOR\\_INTERNAL\\_AND\\_EXTERNAL\\_QUALITY\\_ASSURANCE\\_IN\\_THE\\_EUROPEAN\\_HIGHER\\_EDUCATION\\_AREA](https://www.researchgate.net/publication/327742092_MAIN_STANDARDS_FOR_INTERNAL_AND_EXTERNAL_QUALITY_ASSURANCE_IN_THE_EUROPEAN_HIGHER_EDUCATION_AREA).
3. Kelum A. A. Gamage, R. G. G. Roshan Pradeep, Vesna Najdanovic-Visak, Nanda Gunawardhana. Academic Standards and Quality Assurance: The Impact of COVID-19 on University Degree Programs (2021). DOI:10.3390/su122310032. [Electronic resource] – Access mode: <file:///C:/Users/Acer/Downloads/sustainability-12-10032-v2.pdf>.
4. European Higher Education Area and Bologna Process official website. EUROPEAN ASSOCIATION FOR QUALITY ASSURANCE IN HIGHER EDUCATION (ENQA) (2016). [Electronic resource] – Access mode: <http://ehea.info/cid101643/enqa.html>.
5. National Agency for Quality Assurance in Higher Education of Ukraine – Official website. News: The National Agency has received the status of an affiliated member of ENQA (2020). [Electronic resource] – Access mode: <https://naqa.gov.ua/category/%D1%81%D0%BF%D1%96%D0%B2%D1%80%D0%BE%D0%B1%D1%96%D1%82%D0%BD%D0%B8%D1%86%D1%82%D0%B2%D0%BE/page/2/>.
6. Huang Futao. Changes and Challenges in the Quality Assurance of Higher Education in East Asia. (2018). Tsinghua University Study. [Electronic resource] –

- Access mode:  
[http://www.cssn.cn/jyx/jyx\\_gdjyx/201810/t20181019\\_4719707.shtml](http://www.cssn.cn/jyx/jyx_gdjyx/201810/t20181019_4719707.shtml).
7. NIAID official website. [Electronic resource] – Access mode:  
<https://www.niad.ac.jp/english/>.
  8. NIAID - QE, University Reform and Diploma Support Organization, NIAD. [Electronic resource] – Access mode: <http://www.niad.ac.jp/english/about/historical-sketch.html>.
  9. Ka Ho Mok, Jin Jiang. Promoting Higher Education and Problems of Graduate Employment and Social Mobility: East Asian Experience and Sociological Reflections. International Journal of Education Development (IF 1.36) Publication date: 2018-11-01, DOI: 10.1016 / j.ijedudev.2017.02.003. [Electronic resource] – Access mode: <https://www.x-mol.com/paper/1340416513619443712/t?recommendPaper=1340381009276485632>.
  10. Sophia Chawala. Education in Japan. (2021). World education news + reviews. [Electronic resource] – Access mode:  
<https://wenr.wes.org/2021/02/education-in-japan>.
  11. Ministry of Education, Culture, Sports, Science and Technology of Japan, "Quality Assurance for Higher Education in Japan", (2020). [Electronic resource] – Access mode:  
[http://www.mext.go.jp/component/b\\_menu/shingi/giji/icsFiles/afieldfile/2013/04/16/1333453\\_2.pdf](http://www.mext.go.jp/component/b_menu/shingi/giji/icsFiles/afieldfile/2013/04/16/1333453_2.pdf).
  12. KCUE, «Certification», KCUE. [Electronic resource] – Access mode:  
[http://english.kcue.or.kr/resources/resourccs\\_01\\_01.php](http://english.kcue.or.kr/resources/resourccs_01_01.php).
  13. Anthony Stella, Quality Assurance Mechanisms in Higher Education in the Wide Asia Pacific Region, 2008. [Electronic resource] – Access mode:  
<https://shclbycearlc.y.files.wordpress.com/2010/06/qainhighereducationsurveyreport13022008finalversio.pdf>.
  14. Learning Portal. Information and communication technology (ICT) in education. (2021) [Electronic resource] – Access mode:

<https://learningportal.iiep.unesco.org/en/issue-briefs/improve-learning/curriculum-and-materials/information-and-communication-technology-ict>.

15. University Affairs. Official news website. (2021). [Electronic resource] – Access mode: <https://www.universityaffairs.ca/news/news-article/covid-19-updates-for-canadas-universities/>.

16. Cheung, A.C.K and Slavin, R.E. 'How features of educational technology applications affect student reading outcomes: A meta-analysis'. (2012). Educational Research Review. [Electronic resource] – Access mode: <https://www.sciencedirect.com/science/article/abs/pii/S1747938X12000401>.

17. Samjung KPMG Economic Research Institute. Official website. [Electronic resource] – Access mode: <https://home.kpmg/kr/en/home/services/eri.html>.

18. Taranyuk L.M., Yeremenko O.O., Klemberg A.S. Stakeholder approaches in business process management in industrial enterprises. Economic problems of sustainable development: materials of the International scientific-practical conference of students and young scientists named after Professor Balatsky OF "Economic problems of sustainable development" / for general. ed.: TA Vasilieva, OV Shkarupa. - Sumy: Sumy State University, 2020. - 275 p.

19. Yeremenko O.O., "International aspects of logistics infrastructure management of enterprises using the Internet of Things" // (Project) Competitive work for the All-Ukrainian competition of student research papers in the field of "Management of foreign economic activity", 2021. Code: "Управління логістикою".

20. Babicheva O. Marketing complex of higher educational institution. // The market of educational services: modern challenges. Proceedings of the scientific-practical conference with international participation (Kyiv, June 11, 2019), pp. 9-10.

21. Ministry of Education and Science of Ukraine. MES plans in the field of higher education, science and innovation: create an effective model of autonomous call and increase the level of implementation of results. (2021). [Electronic resource] – Access mode: <https://mon.gov.ua/ua/news/plani-mon-u-sferi-vishoyi-osviti>

nauki-ta-innovacij-stvoriti-efektivnu-model-avtonomnogo-zvo-ta-pidvishiti-riven-vprovadzheniya-rezultativ-naukovih-doslidzhen.

22. The Good Country. Official web-site. [Electronic resource] – Access mode: <https://www.goodcountry.org/index/results/>.

23. Daten & Analysen zum Hochschul- und Wissenschaftsstandort. Ukraine. (2018). Diese Veröffentlichung wird aus Zuwendungen des Bundesministeriums für Bildung und Forschung an den DAAD finanziert. [Electronic resource] – Access mode: [file:///C:/Users/Acer/Downloads/bsa\\_report\\_long\\_ukraine.pdf](file:///C:/Users/Acer/Downloads/bsa_report_long_ukraine.pdf).

24. On higher education: Law of Ukraine of 01.07.2014 № 1556-VII. Date of renovation: 30.03.2021. URL: <http://zakon2.rada.gov.ua/laws/show/1556-18>.

25. MES of Ukraine. HIGHER EDUCATION DEVELOPMENT STRATEGY IN UKRAINE for 2021–2031. Kiev. (2020). [Electronic resource] – Access mode: <https://mon.gov.ua/storage/app/media/rizne/2020/09/25/rozvitku-vishchoi-osviti-v-ukraini-02-10-2020.pdf>.

26. Vitrenko, Yu. M., & Vorona, V. O. (2020). HIGHER EDUCATION DEVELOPMENT STRATEGY IN UKRAINE FOR 2021-2031: ECONOMIC ASPECT. Bulletin of the National Academy of Pedagogical Sciences of Ukraine, 2 (2). [Electronic resource] – Access mode: <https://doi.org/10.37472/2707-305X-2020-2-2-11-6>.

27. NAQA. Annual report of the National Agency for Quality Assurance in Higher Education for 2019 / for general ed. prof. Sergey Kvit. - Kyiv: National Agency for Quality Assurance in Higher Education, 2020. - 244 p.

28. NAQA. Annual report of the National Agency for Quality Assurance in Higher Education / For general. ed. S. Kvita and O. Yeremenko. - Kyiv: National Agency for Quality Assurance in Higher Education, 2021. - 364 p.

29. Standards and recommendations for quality assurance in the European Higher Education Area (ESG). [Electronic resource] – Access mode: [http://www.britishcouncil.org.ua/sites/default/files/standards-andguidelines\\_for\\_qa\\_in\\_the\\_ehea\\_2015.pdf](http://www.britishcouncil.org.ua/sites/default/files/standards-andguidelines_for_qa_in_the_ehea_2015.pdf).

30. Verkhovna Rada of Ukraine. Official website. "On the establishment of the National Agency for Quality Assurance in Higher Education". (2015) with changes in 2016, 2018, 2019). [Electronic resource] – Access mode: <https://zakon.rada.gov.ua/laws/show/244-2015-%D0%BF#Text>.
31. Ministry of Education and Science of Ukraine. Ukrainian State Centre for International Education. Foreign students in Ukraine. [Electronic resource] – Access mode: <https://studyinukraine.gov.ua/zhizn-v-ukraine/inostrannye-studenty-v-ukraine/>.
32. Foreign students in Ukraine: statistics, 2019 / OM Belik. Kyiv, 2019. S. 24–25.
33. Stadnyy Yegor. Ukrainian students abroad: data for the 2017/18 academic year. CEDOS. Kiev. (2019). [Electronic resource] – Access mode: <https://cedos.org.ua/researches/ukrainske-studentstvo-za-kordonom-dani-do-201718-navchalnoho-roku/>.
34. Study in Poland. (2018). [Electronic resource] – Access mode: <http://www.studyinpoland.pl/en/index.php/news/85-foreign-students-in-poland-numbers-andfacts-2018>.
35. Education abroad: why Ukrainians go to Poland and Germany. (2015). [Electronic resource] – Access mode: <http://www.theinsider.ua/lifestyle/55d6d2752bfc6/>.
36. Ukrainian Centre for Educational Quality Assessment 2007-2020. [Electronic resource] – Access mode: <http://testportal.gov.ua>.
37. Ukrainian students abroad: data for the 2017/18 academic year. CEDOS. Analytical center. [Electronic resource] – Access mode: <https://cedos.org.ua/en/articles/ukrainske-studentstvo-za-kordonom-dani-do-201718-navchalnoho-roku>.
38. British Council. International student mobility to grow more slowly to 2027. (2018). [Electronic resource] – Access mode: <https://www.britishcouncil.org/contact/press/international-student-mobility-grow-more-slowly->



45. Resolution of the Cabinet of Ministers of Ukraine "On the distribution of state budget expenditures between higher education institutions on the basis of indicators of their educational, scientific and international activities" dated 24.12.2019 № 1146. [Electronic resource] – Access mode: <https://zakon.rada.gov.ua/laws/show/1146-2019-%D0%BF#Text>.

46. Resolution of the Cabinet of Ministers of Ukraine "Some issues of introduction of indicative cost" from 03.03.2020 № 191. [Electronic resource] – Access mode: <https://zakon.rada.gov.ua/laws/show/191-2020-%D0%BF#Text>.

47. Vitrenko, Yu. M., & Vorona, V. O. (2020). Higher education development strategy in Ukraine for 2021-2031: economic aspect. Bulletin of the National Academy of Pedagogical Sciences of Ukraine, 2 (2). <https://doi.org/10.37472/2707-305X-2020-2-2-11-6>.

48. Study in Ukraine. Country profile [EB / OL]. (2017-10-21). Sohu Education. [Electronic resource] – Access mode: [http://www.sohu.com/a/120405044\\_243003](http://www.sohu.com/a/120405044_243003).

49. Zaikina T. S., Kravchun P. G., Tytova G. Yu., Rynchak P. I., Saprychova L.V. «Education of international students in Ukraine: current challenges and ways to solve them». Bulletin of problems biology and medicine. Issue 1 (159) // (2021). 168-170 pages, index UDK 378.091.212–054.6(477). DOI: 10.29254/2077-4214-2021-1-159-168-170.

50. Aleksandrova O., Hroznyi I., Vinnikova N., Chuvashova N. CONTROL OF THE QUALITY ASSURANCE SYSTEM AT THE MODERN UKRAINIAN UNIVERSITY. (2019). Economy and management. ISSN 2071-2227, Naukovyi Visnyk NHU, 2019, № 2. DOI: 10.29202/nvngu/2019-2/18. [Electronic resource] – Access mode: [https://www.researchgate.net/publication/332733338\\_Control\\_of\\_the\\_quality\\_assurance\\_system\\_at\\_the\\_modern\\_Ukrainian\\_university](https://www.researchgate.net/publication/332733338_Control_of_the_quality_assurance_system_at_the_modern_Ukrainian_university).

51. Bakhrushyn, V., 2013. What is the quality of higher education and how is it measured? [Electronic resource] – Access mode: <http://education-ua.org/ru/articles/100-shcho-take-yakist-vishchoji-osviti-i-yak-jiji-vimiryuyut>.

52. Askerov, Sh., 2018. The Dependence of Human Development on the Degree of Public Interest. *Philosophy Study*, 8(6), pp. 263–268. DOI: 10.17265/2159-5313/2018.06.002.
53. Grozny, I. S., 2015. Qualitative approach to monitoring of business processes of industrial enterprises. *Eko-nomika i upravlinnya*, 1(65), pp. 36–41.
54. Khamel, Khaldi, 2017. Quantitative, Qualitative or Mixed Research: Which Paradigm to Use? *Journal of Educational and Social Research*, 7(2), pp. 15–24. DOI: 10.5901/jesr.2017.v7n2p15.
55. QS Universities. Sumy State University. [Electronic resource] – Access mode: <https://www.topuniversities.com/universities/sumy-state-university#:~:text=Founded%20in%201948%20just%20off,World%20University%20Rankings%20AE%202018>.
56. Sumy State University. Official web-site. [Electronic resource] – Access mode: <https://sumdu.edu.ua/int/en/>.
57. UniRank. Sumy National Agrarian University. Overview. [Electronic resource] – Access mode: <https://www.4icu.org/reviews/14737.htm>.
58. Sumy National Agrarian University. Official web-site. SNAU enters world green rating. [Electronic resource] – Access mode: <https://snau.edu.ua/sumskij-nau-uvijshov-do-svitovogo-zelenogo-rejtingu/>.
59. SSPU. Official web-site. Sumy State Pedagogical University named after AS Makarenko in international and national rankings. (2020). [Electronic resource] – Access mode: <https://sspu.edu.ua/universytet/zahalna-informatsiia/reitynhy-systema-zaokhochen>.
60. Order №326 - On the completion of the committee on the nutrition of the revision of the reliability of the information provided by the rating materials [https://sspu.edu.ua/images/2021/docs/nakazy/nakaz\\_326\\_vid\\_27082020\\_roku\\_19842.pdf](https://sspu.edu.ua/images/2021/docs/nakazy/nakaz_326_vid_27082020_roku_19842.pdf).
61. SOIPPO. Official web-site. HISTORY OF SOIPPO. [Electronic resource] – Access mode: <http://www.soippo.edu.ua/index.php/pro-nas/istoriya-soippo>.

62. ENIC UKRAINE. National Information Centre of Academic Mobility. "Higher education structure of Ukraine". (2019). [Electronic resource] – Access mode: <http://enic.in.ua/index.php/en/educationl-system>.
63. Aleksandrova O., Hroznyi I., Vinnikova N., Chuvasova N. CONTROL OF THE QUALITY ASSURANCE SYSTEM AT THE MODERN UKRAINIAN UNIVERSITY. (2019). Economy and management. ISSN 2071-2227, Naukovyi Visnyk NHU, 2019, № 2. DOI: 10.29202/nvngu/2019-2/18. [Electronic resource] – Access mode: [https://www.researchgate.net/publication/332733338\\_Control\\_of\\_the\\_quality\\_assurance\\_system\\_at\\_the\\_modern\\_Ukrainian\\_university](https://www.researchgate.net/publication/332733338_Control_of_the_quality_assurance_system_at_the_modern_Ukrainian_university).
64. Foreign students in Ukraine: statistics, 2019 / O.M. Belik. Kyiv, 2019. S. 24–25.

# APPENDICES

## Appendix A

### SUMMARY

Yeremenko O.O. International aspects of ensuring and controlling the quality of educational services in higher education institutions. Sumy State University, Sumy, 2020.

The paper examines the international higher education complex, its controlling organizations, current trends, strategies and foreign experience. The analysis of the current state of the higher education system in Ukraine and the process of its European integration is carried out. Educational migrations in Ukraine and marketing of domestic universities in the field of educational services are considered. The main difficulties in the management of higher education and the features of overcoming them by developing, modernizing and improving the quality control system of Ukrainian education are shown.

Key words: international relations, higher education, European quality standards, Ukrainian universities, innovations, European educational space, management mechanisms, education quality modernization.

### АНОТАЦІЯ

Єременко О.О. Міжнародні аспекти забезпечення та контролю якості освітніх послуг у вищих навчальних закладах.

У роботі досліджено міжнародний вищий навчальний комплекс, його контролюючі організації, сучасні тенденції, стратегії та зарубіжний досвід. Проведено аналіз сучасного стану системи вищої освіти в Україні та процесу її європейської інтеграції. Розглянуто освітні міграції в Україні та маркетинг вітчизняних університетів у галузі освітніх послуг. Показано основні труднощі в управлінні вищою освітою та особливості їх подолання шляхом розробки, модернізації та вдосконалення системи контролю якості української освіти

Ключові слова: міжнародні відносини, вища освіта, європейські стандарти якості, українські університети, інновації, європейський освітній простір, механізми управління, модернізація якості освіти.

## Appendix B



Figure B.1 – Certificate of the Virtual Academic Mobility Program "International Relations and Global Leadership"

## Appendix C

Table C.1 – SWOT-analysis of higher education in Ukraine

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>• A wide network of educational institutions is aimed at providing a broad and diverse education</li> <li>• Access to top-level universities</li> <li>• There are enough talented researchers and teachers for the dynamic and innovative development of higher education systems</li> <li>• Many scientific schools offer world-class academic success</li> <li>• Continuity of teaching and research traditions, representing the best world practices</li> <li>• Transparent procedures of state higher education</li> <li>• Stable demand and high level of coverage of the population in higher education</li> <li>• High quality of education in certain fields, which is reflected in the demand for excellent professionals in the local and international market of graduates</li> </ul>	<ul style="list-style-type: none"> <li>• The regulatory framework of the higher education system is not perfect</li> <li>• Weak and asymmetric integration into the educational and scientific space</li> <li>• There are a significant number of uncompetitive higher education institutions</li> <li>• Low level of involvement of participants in the educational process in scientific and innovative activities</li> <li>• Low level of motivation, including salaries of teachers and employees of higher education institutions</li> <li>• Outdated materials and technical support of higher education institutions</li> <li>• Insufficient autonomy in higher education institutions</li> <li>• The system of budget allocation between universities is not perfect</li> <li>• Low level of infrastructure development in higher education institutions for people with special educational needs</li> <li>• Lack of practical training of specialists of higher educational institutions</li> <li>• Lack of qualified specialists to forecast the economic needs of the country</li> <li>• Qualification of graduates does not meet the requirements of the labour market</li> </ul>

	<ul style="list-style-type: none"> <li>• The public does not trust the requirements of the higher education system for the knowledge needed in the labour market</li> <li>• Lack of objective, effective and reliable indicators of the quality of higher education</li> </ul>
<b>OPPORTUNITIES</b>	<b>THREATS</b>
<ul style="list-style-type: none"> <li>• Ukraine's geopolitical status is the basis for the successful internationalization of higher education and science in the world</li> <li>• Global trend of foreign education, a strong market for educational services in Asia</li> <li>• In an economic sector where jobs can be cut in the automated robotics industry, lifelong learning, including digital transformation and retraining, is needed</li> <li>• Transformation of the world and national economy into sectors</li> <li>• Openness and accessibility of modern educational content</li> <li>• Ukraine's participation in European and Euro-Atlantic integration processes, the European educational space</li> <li>• Development of a strategy for the development of higher education based on the strategy of socio-economic development of Ukraine</li> <li>• Scientific potential of the National Academy of Sciences of Ukraine, the relationship between universities and academic sciences</li> <li>• Potential interest in business structures and circles in cooperation with academic centres and universities</li> </ul>	<ul style="list-style-type: none"> <li>• Adverse demographic situation in the country</li> <li>• Low technological structure of the national economy, disappearing national industry and deepening of deindustrialization</li> <li>• Increasing global competition in higher education and migration of relevant researchers and teachers</li> <li>• The opportunity to achieve new breakthroughs in the free economic zone of the scientific school has disappeared.</li> <li>• Attractiveness of European education for potential entrants, which provides an opportunity to gain competitive knowledge in today's market and continue to pursue professional ambitions outside Ukraine</li> <li>• Development of a distance learning system for universities with higher performance than Ukrainian universities</li> <li>• The training of most participants in the educational process does not meet the requirements necessary for the successful completion of higher education programs.</li> <li>• Lack of motivation to anticipate the participation and labour needs of employers (stakeholders or stakeholders)</li> </ul>

<ul style="list-style-type: none"> <li>• Rapid development and digitization of the IT industry</li> <li>• Applying social development to new challenges caused by unforeseen force majeure</li> </ul>	<ul style="list-style-type: none"> <li>• The potential negative impact of the COVID 19 pandemic on the decline of foreign markets for educational services</li> <li>• Military and political situation in eastern Ukraine</li> <li>• Tolerance of fraud, imitation and corruption in the educational environment and in society as a whole</li> </ul>
---	---

Source: Ministry of Education and Science of Ukraine [25], Vitrenko, Yu. M., Vorona, V. O. [26]

## Appendix D

Table D.1 – Number of foreign students in Ukraine, 2018/2019 (by country of origin)

Country	Number of ppl	Country	Number of ppl
<i>Australia</i>	10	<i>Yemen</i>	221
<i>Austria</i>	13	<i>Zambia</i>	147
<i>Azerbaijan</i>	6228	<i>Zimbabwe</i>	326
<i>Albania</i>	1	<i>Israel</i>	2460
<i>Algeria</i>	730	<i>India</i>	14958
<i>England</i>	1	<i>Indonesia</i>	4
<i>Angola</i>	231	<i>However</i>	981
<i>Argentina</i>	3	<i>Iran</i>	1852
<i>Afghanistan</i>	81	<i>Ireland</i>	19
<i>Bangladesh</i>	207	<i>Iceland</i>	1
<i>Bahrain</i>	5	<i>Spain</i>	32
<i>Belgium</i>	5	<i>Italy</i>	27
<i>Benin</i>	4	<i>Jordan</i>	2207
<i>Belarus</i>	436	<i>Kazakhstan</i>	83
<i>Bulgaria</i>	295	<i>Cameroon</i>	463
<i>Bolivia</i>	1	<i>Canada</i>	49
<i>Botswana</i>	7	<i>Qatar</i>	1
<i>Brazil</i>	25	<i>Kenya</i>	124
<i>Burkina Faso</i>	16	<i>Kyrgyzstan</i>	31
<i>Vietnam</i>	196	<i>China</i>	2721
<i>Venezuela</i>	1	<i>Kipp</i>	11
<i>Armenia</i>	253	<i>Kiribati</i>	1
<i>Gabon</i>	141	<i>Colombia</i>	16
<i>Haiti</i>	1	<i>Pomeranian Islands</i>	38
<i>Gambia</i>	86	<i>Congo</i>	314
<i>Ghana</i>	1665	<i>Democratic People's Republic of Korea</i>	7
<i>Guinea</i>	96	<i>Kingdom of Eswatini</i>	58
<i>Guinea-Bissau</i>	2	<i>Ivory Coast</i>	161
<i>Greece</i>	61	<i>Cuba</i>	1
<i>Georgia</i>	2397	<i>Kuwait</i>	66
<i>Guam</i>	1	<i>Latvia</i>	23
<i>Denmark</i>	11	<i>Lesotho</i>	3
<i>Democratic Republic of the Congo</i>	265	<i>Lithuania</i>	93

<i>Djibouti</i>	1	<i>Liberia</i>	54
<i>Dominica</i>	4	<i>Lebanon</i>	1070
<i>Ecuador</i>	617	<i>Libya</i>	746
<i>Mauritius</i>	5	<i>Senegal</i>	28
<i>Mauritania</i>	42	<i>Syria</i>	626
<i>Madagascar</i>	13	<i>Singapore</i>	2
<i>Malawi</i>	9	<i>Slovakia</i>	50
<i>Malaysia</i>	2	<i>Slovenia</i>	4
<i>Mali</i>	14	<i>Somalia</i>	45
<i>Maldives</i>	61	<i>The United Kingdom</i>	102
<i>Morocco</i>	7390	<i>United States</i>	367
<i>Marshall Islands</i>	1	<i>Sudan</i>	332
<i>Mexico</i>	10	<i>Sierra Leone</i>	60
<i>Mozambique</i>	10	<i>Tajikistan</i>	206
<i>Moldova</i>	667	<i>Thailand</i>	1
<i>Monaco</i>	2	<i>Tanzania</i>	110
<i>Mongolia</i>	74	<i>Togo</i>	1
<i>Namibia</i>	237	<i>Tuvalu</i>	2
<i>Nepal</i>	14	<i>Tunisia</i>	774
<i>Niger</i>	4	<i>Turkey</i>	3254
<i>Nigeria</i>	3552	<i>Turkmenistan</i>	5033
<i>Netherlands</i>	8	<i>Uganda</i>	26
<i>Nicaragua</i>	1	<i>Hungary</i>	14
<i>Germany</i>	144	<i>Uzbekistan</i>	1892
<i>New Zealand</i>	1	<i>Philippines</i>	5
<i>Norway</i>	13	<i>Finland</i>	61
<i>United Arab Emirates</i>	25	<i>France</i>	31
<i>Oman</i>	1	<i>Croatia</i>	3
<i>at. Taiwan, PRC</i>	14	<i>Central African Republic</i>	1
<i>Pakistan</i>	338	<i>Chad</i>	1
<i>Palestine</i>	606	<i>Czech Republic</i>	18
<i>Peru</i>	6	<i>Montenegro</i>	1
<i>South African Republic</i>	43	<i>Switzerland</i>	6
<i>Northern Mariana Islands</i>	1	<i>Sweden</i>	53
<i>Poland</i>	735	<i>Sri Lanka</i>	19
<i>Portugal</i>	13	<i>Jamaica</i>	21
<i>Republic of Kopeya</i>	84	<i>Japan</i>	35
<i>Republic of Northern Macedonia</i>	10	<i>Hong Kong, PRC</i>	1
<i>Republic of Serbia</i>	9	<i>Saudi Arabia</i>	21
<i>Reunion</i>	1	<i>Romania</i>	10
<i>Russia</i>	1300	<i>Stateless persons</i>	86
<i>Rwanda</i>	29		

Source: Foreign students in Ukraine: statistics, 2019 / OM Belik. Kyiv, 2019. S. 24–25 [64]