
Education Management in Ukraine in the Context of Global Economic Transformations

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Abstract:

The article identifies the features of the management of higher education in Ukraine and in Europe in the context of global economic transformations. In the process of analysis, it was determined that the financing of higher education in European countries is carried out almost equally: at the expense of the State budget and at the expense of individuals.

At the same time, the outflow of students from the CIS countries to European countries can be explained by the proposed concepts of providing educational services, the main difference among which consists, firstly, in orientation towards the needs of the state, and secondly, in orientation towards the needs of business structures and various market subjects.

It was also determined that the impact of economic factors on the level of education is rather low, and at the same time, this indicator largely depends on the indicator of the social capital.

In this regard, the following social trends have been identified that need to be implemented for the successful education management: expanding the population education program, as well as providing lifelong education, ensuring equal access to quality education, strengthening the role of the state in ensuring equity in education, efficient and effective use of education costs, humanization and democratization of education, updating the content, forms, methods and means of training, enhancing the professional competence of teachers, transparency of education systems, the formation of state-public forms of education management.

Keywords: Education management, globalization, global development indices, economic transformation, social capital.

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1. Introduction

In the conditions of constant transformations, the modernization of the economy can be defined as the process of coordinating the efforts of society aimed at overcoming crisis phenomena in the economic and social spheres in order to prevent the loss of economic, political and competitive positions on the world market (Lamanauskas and Augienė, 2016).

Europe's ability to compete globally with the knowledge economy will depend on how quickly and accurately the higher education institutions can meet the growing demand for high-skilled professionals (Schleicher, 2006). Education is recognized as the main institutional economic mechanism of production, accumulation and distribution of human capital. There are three classic approaches to defining the relationship between education and economic growth. The first approach assumes that education increases the level of human capital inherent in the labor force, which ultimately increases the labor productivity and, thereby, reduces the transition period of the economy towards a higher balancing level (Lopez-Bazo, 2017). The second approach to determining the relationship between education and economic growth determines that education should be aimed at increasing the innovation potential. This approach is also known as a theory of endogenous growth (Romer, 1990). Finally, the third approach emphasizes that education contributes to the diffusion and transfer of knowledge that is necessary for the correct understanding and processing of new information, as well as the implementation of new technology that leads to economic growth (Nelson and Phelps, 1966).

Over the past two decades, global trends of political and economic development have led to significant institutional reforms of educational content in many European countries, considering higher education as the most important factor in the knowledge economy development, which is based on four main pillars, such as information and infrastructure, economic and institutional regimes, a system of knowledge and innovation, knowledge, skills and lifelong learning (Agiomirgianakis *et al.*, 2002; Robertson *et al.*, 2007; Markina *et al.*, 2015; Avdeeva *et al.*, 2017; Smirnov *et al.*, 2018).

Some economic aspects related to the financing of higher education were highlighted in the investigations of modern researchers. Thus, in one of his research papers, Jacques J.F. has conducted a scientific analysis of the causal relationships of tax payment and tax evasion, as one of the mechanisms for financing education in France. In turn, Ozkok S. has analyzed some issues related to the role of globalization in relation to public spending on education in Europe. Dissou Y., and Didik S., have conducted a comparative analysis of the use of public and private financing mechanisms for teaching the open economy of Canada (cited by Smirnov *et al.*, 2018). The role of education as the most important factor in the socio-economic development of the country in modern conditions is constantly growing. Consequently, the multidimensionality of education is determined by the functions that are realized in the relations of the

individual as the consumer of educational services, the modern society and the national economy (Livingstone and Guile, 2012; Galushkin, 2017). Recognition of the basic economic aspects of education, determination of efficiency and identification of the development directions is exactly the task, the solution of which depends on leveling the discrepancy between educational productivity and the expectations of the economy regarding its importance (Bolgova, 2011). The goal of the study is to identify the features of higher education management in the context of global economic transformations. To achieve this goal, the main tasks were set as follows:

- to carry out an analysis of the national education system and the system of education in European countries, as well as to analyze the problems, which are the reflection of the contradictions of the transitional period of economic development;
- to determine the role of education in the socio-economic development of Ukraine and European countries, and to analyze the changes in the educational needs of society in the transition to post-industrial development;
- to identify the socio-economic prerequisites for transformation and the development of the higher education system in Ukraine (Kulinich and Zaretska, 2014).

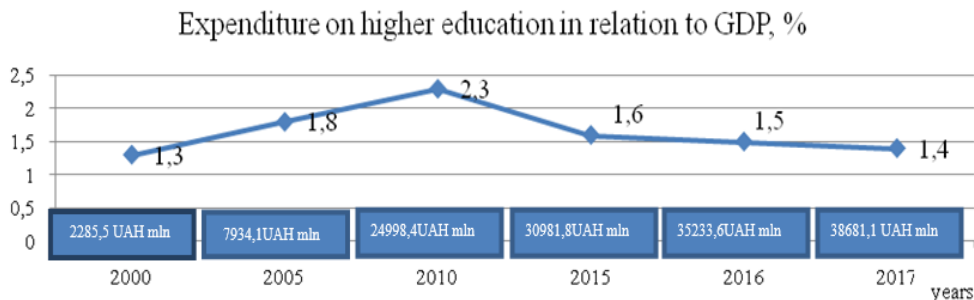
1.1 An analysis of the state of higher education systems in the countries of Europe as a reflection of the contradictions of the transit period of economic development

The market transformation of the Ukrainian education system today is contradictory. The change in the system of economic relations in Ukraine, on the one hand, has found its reflection in increasing the economic and legal independence of educational institutions, changing the structure and sources of financing state educational institutions and expanding their business and other activities that bring profit and revenue, as well as forming the educational services market and creating competition, and ensuring the transition from distributive to regulatory management of the educational system. On the other hand, new problems and contradictions have appeared: the emergence of relatively low volumes of the state budget financing of educational institutions, the weakening of the system of state guarantees and the regulatory role of the state in the field of education (Kulinich and Zaretska, 2014).

In general, given the growth in GDP over the 9-year period by 1,7 times in 2017 compared to 2009, the number of universities, academies and institutes has decreased by 11,3%, and the number of students has decreased by 2,7 times.

Moreover, during 2000-2017, the share of GDP allocated to a scientific and a scientific-technical activity, particularly in the higher education sector, has decreased in Ukraine (Figure 1).

Figure 1. Dynamics of expenditure on higher education in relation to GDP in Ukraine, 2000-2017 (compiled by authors on the basis of the source: Statistical collection “Higher education in Ukraine”, 2017)



At the same time, there is a decrease in the number of applicants for higher education, which is directly related to demographic changes and the outflow of a significant part of applicants to higher-education institutions in Europe.

The number of Ukrainian students at foreign universities has now reached approximately 80,000 persons. In the 2015/2016 academic year, there were slightly less than 67,000 persons. The lion's share of this increase is represented by Ukrainians studying at Polish universities. Here we have the most radical growth over the past three years – from 22,8 to 33,0 thousand persons. In this context it should be emphasized that Poland, Germany, Russia, Canada, Czech Republic, Hungary, Italy, Spain, the USA, Austria and France are among the most desirable countries to study abroad. The main reasons why Ukrainians favor the European higher education institutions, lies directly in the existing concepts of the educational services market in Ukraine and abroad (Table 1).

Table 1. The conceptual features of the provision of higher education services in Ukraine and in the European higher education institutions (Alpatov, 2016; National Strategy for the Development of Education in Ukraine for 2012-2021)

Education system in Ukraine	Foreign education systems
The main focus is on studying the theoretical part of the material only.	During the study the emphasis is on acquiring skills in a practical area.
Volumetric approach to learning. Compulsory study of “extra” academic disciplines.	Profile approach to learning with the addition of the related subjects.
The authority of the teacher is placed above the student's authority.	Authorities of the teacher and the student remain on an equal footing.
Access to higher education.	In most countries, higher education is quite expensive.
Low level of infrastructure development and comfort for students.	Favorable learning environment and availability of highly developed infrastructure.

Competitive selection and enrollment of applicants on the basis of the results of the external independent knowledge assessment.	Admission of applicants on the basis of the results of the test / exam or on the basis of the average score of the certificate.
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Contradictions of the higher education management system can be expressed in many aspects, in particular as follows: the quality of education does not justify itself, since the funds spent during the period of study do not pay off in a long-run period; a wide variety of educational programs for which funds are deducted from the state's budget, are irrelevant, since there is no need for these specialists in the labor market; the lack of links between the needs of the socio-economic system and the areas of specialist training offered; lack of support for higher education institutions that work directly with government agencies and corporate structures; reducing the volume and increasing the depth of educational criteria; implementation of domestic and foreign educational technologies, hybridization of the national system of higher education (Markina *et al.*, 2015; Kuts and Dolgushina, 2015).

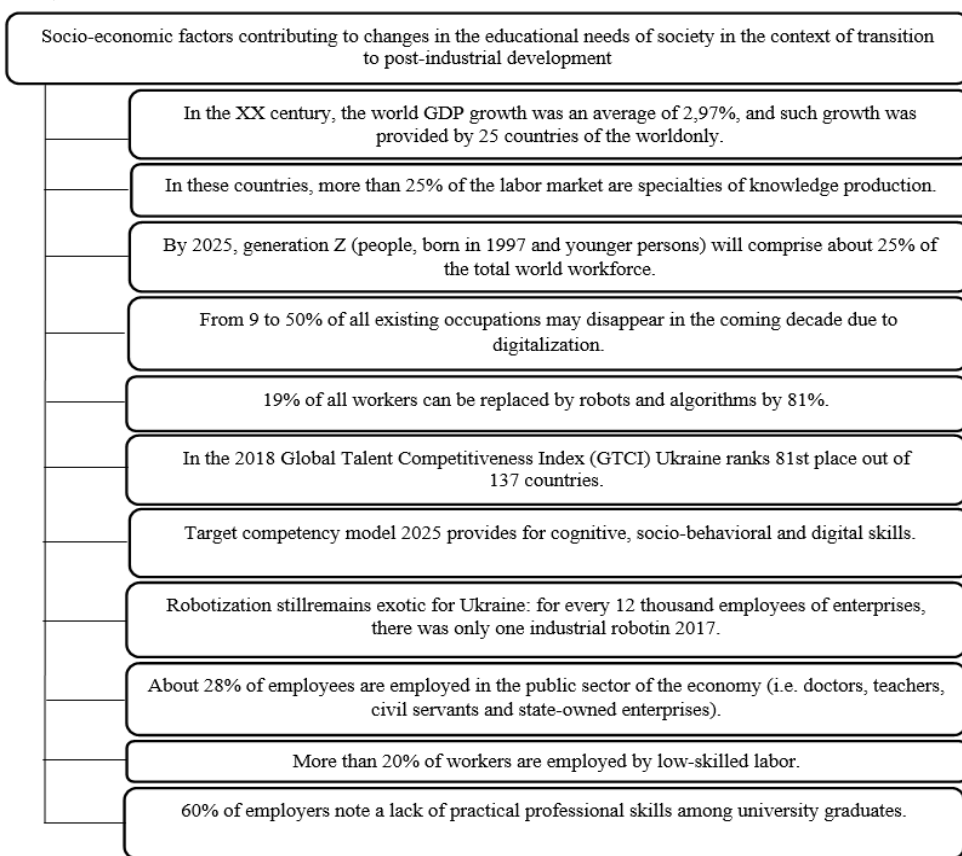
In contrast to Ukraine, European universities have slightly different features of socio-economic changes in the field of higher education support. Analysis of higher education systems in a number of countries in the European region allowed us to identify the following trends: the transition from elite to mass higher education in Europe; quantitative growth of the number of students and their mobility, which is associated with the requirements of European society to ensure social justice in education; the increase in the duration of compulsory education; the complexity of the structure of higher education system and the increasing diversity of the network of universities; the increase of the role of non-state higher education sector; improvement of the management system of higher education; fundamental rethinking and restructuring of all spheres of activity and aspects of the functioning of higher education institutions in European countries to optimize financial costs; the development of mechanisms for integration policy in the field of higher European education. Financial aspects, among which the main ones are such as:

- firstly, this is an increase in the disagreement between the level of financing higher education in different European countries: the difference between the volumes of financing higher education in accordance with the country's GDP growth in 2008 was only 1,08%, and in 2017 it was already 1,72%;
- secondly, the restriction of financing of higher education by state budget in the countries of Southern and Eastern Europe during the crisis and post-crisis period becomes the norm;
- thirdly, the stabilization and growth of financing of higher education in Scandinavia and the countries of Western and Central Europe, where the state and society recognize the influence of higher education sufficiently important to ensure the competitiveness of the national economy and the

- country as a whole;
- fourthly, the updating of state investments in the existing infrastructure network of higher education.

In addition to these factors, it is also advisable to consider the main changes in the educational needs of society in the period of transition to post-industrial development (See Figure 2).

Figure 2. Socio-economic factors contributing to changes in the educational needs of society in the context of transition to post-industrial development (developed by authors on the basis of the source: Protasova et al., 2012; Preobrazhensky et al., 2017)



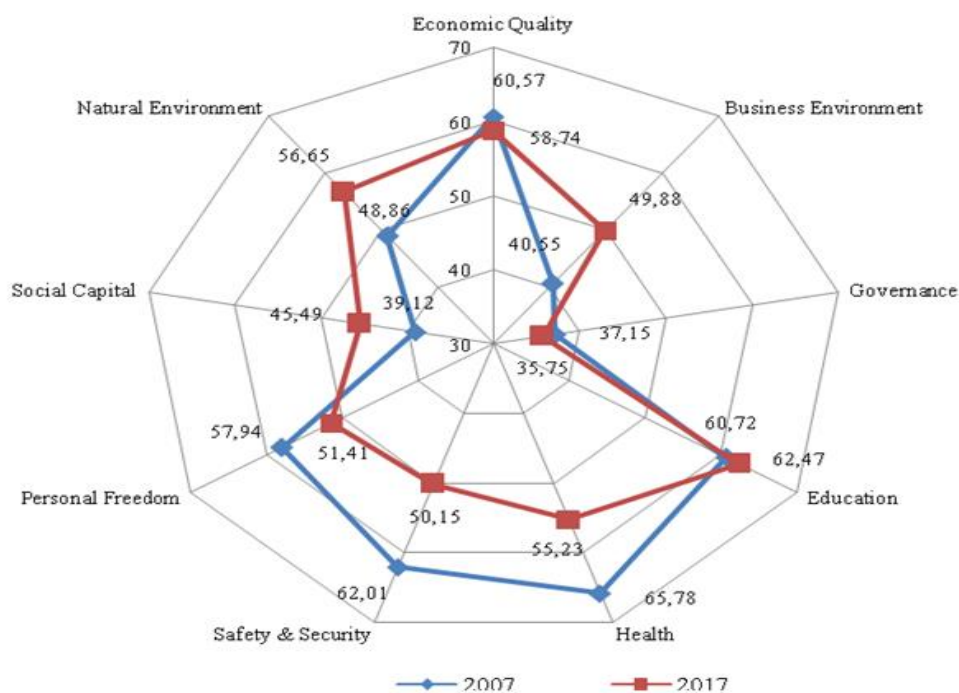
From this it follows that the contradictions in the system of management of higher education now can not be fully resolved due to the lack of complete understanding and mutual assistance between the national economy, civil society and the individuals, who live in it.

2. Materials and methods

Recently, the quality of education has acquired particular relevance and appeal. The logical result of this transformation may be a social cycle of quality: “individual – labor – [(products, technology, and management) – (education, science, culture, social intellect)], – life – individual” (Subetto, 1999). The shift of the strategy and priorities of economic development towards people, social intelligence and, consequently, towards education has led to the fact that the policy of education quality becomes the core of economic growth, social capital and business environment. The conclusion is confirmed by the dynamics of global indices of Ukraine in 2007 and 2017 (Figure3).

However, analysis of the Governance, Education, Health, Safety & Security, Personal Freedom indices in the context of their individual indicators allows us to conclude that the national government policy, medicine and personal development in Ukraine are far behind the foreign countries. The foregoing necessitates the functionality of a modern education system in the “personality-society-economy” triad. As a result, each component of the given triad provides for the satisfaction of certain interests.

Figure 3. The dynamics of global development indices of Ukraine in 2007 and 2017 (developed by authors on the basis of the source: The 2007 Legatum Prosperity Index A Global Assessment of Wealth and Wellbeing; The 2017 Legatum Prosperity Index A Global Assessment of Wealth and Wellbeing)



The component “personality” implies social, spiritual moral and other types of development of the individual, as well as the formation of professional and professional competencies, acquisition of skills, and the formation of personal freedom. Another component, which is “society”, aims to develop the social capital of the country, the formation of a competitive labor market, and ensuring social security and protection. And finally, the component “economy” provides for ensuring the economic security of the country, meeting the needs of business, creating social capital and innovative potential to meet economic interests. Therefore, within the framework of the proposed research, it has been established the hypothesis that the modern education system depends on the “personality-society-economy” triad, and according to the analysis of global indices, it is influenced by such factors as Economic Quality, Personal Freedom, Social Capital. There are complex interrelations between factors therefore their influence on the Education Index as the resultant attribute, is rather complex and not just the sum of isolated impacts.

Multi-factor correlation-regression analysis will allow us to assess the degree of influence on the investigated performance indicator of each of the factors introduced into the model with a fixed position at the average level of other factors. From practical experience it is known that the dependencies of this type can be described by the following multifactor linear production function:

$$Y = a_0 + a_1 \times x_1 + a_2 \times x_2 + \dots a_n \times x_n \quad (1)$$

The main task of multifactor regression is the study of the influence of the various factors on the resulting indicator. In this case, the construction of a multifactor linear regression of the influence of the main factors (Economic Quality (x_1), Personal Freedom (x_2), Social Capital (x_3)) on the Global Education Index (Y) is carried out. All indicators are calculated for the period 2009-2017

The degree of influence of changes in each of these factors on the change in the indicator can be inferred by analyzing the value of the partial correlation coefficients r_{yx}^1 , r_{yx}^2 , r_{yx}^3 (Table 2a, 2b, 2c).

Table 2a. Correlation matrix to determine the effect of Economic Quality, Personal Freedom, Social Capital on Global Education Index value

i	x_0	x_1	x_2	x_3	Y	X_{n1}	X_{n2}	X_{n3}	\hat{Y}_i theoretical level	$(Y_i - Y_c)^2$	$(Y_i - \hat{Y}_i)^2$
1	1	60,17	55,58	37,85	59,52	0,37	0,71	- 0,80	60,523	6,731	1,005
2	1	60,06	50,17	43,53	60,61	0,32	- 0,48	0,21	61,222	2,266	0,376
3	1	59,96	53,13	42,53	62,43	0,27	0,17	0,03	62,021	0,101	0,170
4	1	58,34	51,31	42,22	62,33	-	-	-	62,557	0,047	0,051

						0,50	0,22	0,03			
5	1	59,87	53,16	42,00	62,18	0,22	0,18	-0,07	61,851	0,004	0,108
6	1	60,00	53,35	42,71	63,20	0,29	0,22	0,06	62,168	1,178	1,065
7	1	58,72	51,48	42,49	63,14	-0,32	-0,19	0,02	62,421	1,060	0,522
8	1	58,73	51,48	42,49	63,14	-0,32	-0,19	0,02	62,413	1,060	0,534
9	1	58,74	51,41	45,49	62,47	-0,32	-0,20	0,55	63,856	0,126	1,920
10	1	58,52	51,17	44,68	63,92	-	-	-	63,558	-	-
Total	9	474,42	415,489	343,448	499,511	-0,96	-0,58	0,60	559,03	12,57	5,75
The average value		59,40	52,34	42,37	62,11						
Standard deviation		0,70	1,53	1,88	1,25					D[Y]=	1,57

Table 2b. Correlation matrix to determine the effect of Economic Quality, Personal Freedom, Social Capital on Global Education Index value

	[R]										
1,00	0,56	-0,39	Fkp=	5,41	det[R]=	0,276	rYX1=	-0,54	tkp=	2,57	
0,56	1,00	-0,77	F1=	0,76	Xi^2=	10,36	rYX2=	-0,37	t12=	-1,07	
-0,39	-0,77	1,00	F2=	3,44	Xi^2kp=	7,81	rYX3=	0,58	t13=	-0,15	
			F3=	2,50					t23=	2,36	
	[Z]=[R]-1										
1,46	-0,91	-0,13		r12=	-0,43		det[R]=	0,40			
-0,91	3,06	2,01		r13=	-0,07		Xi^2=	4,71			
-0,13	2,01	2,50		r23=	0,73		Xi^2kp=	12,59			
SST=	12,57	R^2=	0,54		Q=	22,85					
SSE=	5,75	Fr=	8,41		Q'=	4,88					
SSR=	6,82	Fkp=	5,41		Dy=	3,97					

Table 2c. Correlation matrix to determine the effect of Economic Quality, Personal Freedom, Social Capital on Global Education Index value

$Y_r = -0.88 \times 1 + 0.40 \times 2 + 0.49 \times 3 + 72.26$											
tkp	2,571									Kx1=	-0,81
Ymin=	59,5906									Kx2=	-0,33
Ymax=	67,5247									Kx3=	0,35

3. Results and Discussions

Paired correlation coefficients indicate the effect of individual indicators (Economic Quality, Personal Freedom and Social Capital) on the indicator y , that is, the value of the global Education index. The dependence of the Education index on the Economic Quality index is minimal, since the value $r_{yx}^1 = -0.54$. The dependence on the Personal Freedom factor is similar, as evidenced by the value of the indicator $r_{yx}^2 = -0.37$. However, in accordance with the dependency indicator $r_{yx}^3 = 0.58$, there is a close relationship between the Education Index in Ukraine and the Social Development Index and the Social Capital Index of the country.

The significance of the paired correlation coefficients between the factors indicate that there is a close relationship between all the factors, which indicates the close mutual influence of the factors; in addition, the factors x_1 and x_2 have the greatest mutual influence. As a result of calculations, the following values of the parameters $a_0=72,26$, $a_1=-0,88$, $a_2= 0,40$, $a_3=0,49$ are determined, which makes it possible to write in an explicit form the following linear multiple regression model:

$$Y = -0.88x_1 + 0.40x_2 + 0.49x_3 + 72.26 \quad (2)$$

Each coefficient of the given equation indicates the degree of influence of the corresponding factor on the resultant Education index for a fixed position of the other factors, that is, when a single factor changes by one unit only, the changes in the resultant indicator should be expected. Consequently, when Economic Quality changes by one unit (with other factors unchanged), the Education Index decreases by 0,88. When Personal Freedom Index changes by one unit (holding other factors constant), the Education Index increases by 0,40. And finally, when Social Capital Index changes by one unit, the Education Index will increase by 0,49. The free term of the multiple regression equation has no economic meaning.

The next stage is the analysis of the coefficient of elasticity, which should be calculated for each of the factors. The coefficient of elasticity is calculated to determine the relative strength of the influence of individual factors on the result, so it shows how many percent the selected Education index will change if the factor changes by 1%.

If the Economic Quality Index value increases by 1%, then the Education Index will decrease by 0,81%, if the Personal Freedom Index value increases by 1%, the Economic Quality Index value will decrease by 0,33%, and if the Social Capital Index value is increased by 1%, Education Index value will increase by 0,35%. That is, the level of education in Ukraine in 2009-2017 largely depends more on social factors only. To determine the impact of economic factors on the level of education in European countries, the following systematization of indicators prepared by experts of the European Universities Association (EUA) was used. As a result, it allowed to analyze the trends of changes in the financing of higher education of

European member countries and former members in the crisis and post-crisis periods, which are extremely diverse (Table 3).

Table 3. *Changes in the volume of state funding for higher education in the EUA's member countries in 2008-2017 (compiled by authors on the basis of the source: EUA. Public Funding Observatory, 2014; Srobuva, 2015; Wilson, 2013).*

Changes in government funding (%)	Country (Educational System Characteristics)	
	Changes without inflation	Inflationary changes
Growth over 40%		Iceland
Growth from 20% to 40%	Germany, Norway, Sweden	Austria, Germany, Norway, Poland, Serbia, Sweden
Growth from 10% to 20%	Austria, Belgium	Belgium (Flanders), the Netherlands
Growth from 5 % to 10 %	Poland	Croatia, Portugal
range of values between growth of 5% and decrease of 5%	Belgium (Flanders), Iceland, the Netherlands, Portugal	Slovenia, Slovakia
Decrease from 5 % to 10 %	Croatia, Slovenia	Czech Republic, Spain
Decrease from 10 % to 20 %	Czech Republic, Serbia, Slovakia, Spain	Italy
Decrease from 20% to 40%	Ireland, Italy, Lithuania, Great Britain	Hungary, Ireland, Lithuania, Great Britain
Decrease more than 40%	Greece, Hungary	Greece

Based on the analysis of the data presented in Table 1, we consider it appropriate to emphasize that, in contrast to Ukraine, the real growth of funding for higher education development took place in 6 countries out of 22, which became the subject of our study. In 12 countries, there has been a decrease in educational budgets and only in four countries the funding remained relatively stable ($\pm 5\%$). Commenting on the data available though, the experts of the European Universities Association emphasize that the instability of higher education funding has been a common feature of budgetary processes in many countries throughout the study period. Due to the high rate of inflation, the nominal growth of university budgets turned out to be a chimera in several countries and meant losses (in real numbers). Such losses were the most extreme in Serbia, where 32% of the nominal growth of the educational budget resulted in 8% losses considering the level of inflation. Inflation rates were also quite high (over 10%) during this period in Iceland, Greece, Hungary, and Lithuania, which significantly devalued the government's financial injections into higher education (EUA. Public Funding Observatory, 2014; Srobuva, 2015).

Summarizing the above indicators, it is advisable to note that in most European countries, especially those that occupy the highest levels in the ranking on the Global Education index, there is a significant increase in GDP, which is used to finance education. Since the Ukrainian government is not able to provide an annual

increase in spending on higher education within 20-40% of GDP, and also, as it turned out on the basis of correlation and regression analysis, that the factor of Education is significantly more influenced by social changes in the country, and not by economic ones, we consider it appropriate to develop a system of socially oriented measures to improve the quality of higher education as a whole.

Based on the generalization of the conceptual features of education in France, Italy, Germany, Norway, Switzerland, Greece, and the Czech Republic, the main measures of a socio-economic nature were identified that should be implemented in the existing higher education system in Ukraine. Among the social measures that need to be implemented in order to successfully manage education, it is necessary to ensure: an increase in the educational coverage of the population; the possibility of lifelong education; equal access to quality education; strengthening the role of the state in ensuring justice in education; effective and efficient use of education costs; humanization and democratization of education; timely updating of the content, forms, methods and means of education; improvement of the professional competence of teachers; dissemination of information on the quality of educational services (transparency of education systems); the formation of state-public administration of education.

The state-public form of education management involves the interaction of two components, united by specific tasks, motives and goals. Success in this activity is most likely to be achieved, in particular, by the powers and responsibility of each of the subjects of interaction for the implementation of the decisions taken. The main feature of state-public education management is the creation of special self-regulatory management structures. Those structures that are not directly related to the education system (employers, social partners, academic institutions and creative unions) but provide certain resources to educational institutions (from extrabudgetary sources) are attached to participation in education management. At the same time, not only permanent associations of educators (i.e. associations), but also temporary ones (like conferences and seminars) and various associations of institutions of higher education are actively involved in the process of management (Nikolaenko, 2008).

The overall goal of higher education management is to ensure the functioning and development of the field of education, its self-regulation at the national, regional and local levels, which requires the formation of the socio-economic prerequisites for the transformation and development of the higher education system in Ukraine and Europe, which consist of the following subcomponents: improvement of the efficiency of education authorities; creation of a full-fledged legal framework for the education system stable functioning and effective development; improvement of work with managerial personnel and increasing their professionalism and ensuring mastery of modern management technologies; the use of positive experience in education management; the development of the local self-government system; expansion and deepening of mutually beneficial international relations; bringing

financial and logistical support to the regulatory level; organization of legal and social protection of educators; the use of the results of scientific research in education management; accelerating the pace of the development of society, and consequently, the need to prepare people for life in the rapidly changing conditions; the transition to a post-industrial, information society, a significant expansion of the scope of intercultural interaction, in connection with which the factors of sociability and tolerance are of particular importance; the emergence and growth of global problems that can only be solved through cooperation within the international community, which requires the formation of modern thinking in the younger generation; democratization of society and the corresponding expansion of political and social choice makes it necessary to increase the level of citizens' readiness for such a choice; dynamic development of the national economy, increasing competition and reducing of unskilled and low-skilled labor in the country; deep structural changes in the sphere of employment, which determines the constant need for advanced training and retraining of workers, the growth of their professional mobility; growth of the value of human and social capital, which leads to an intensive and advanced development of education for both young people and adults; ensuring high quality of education, adequate transparent assessment of learning outcomes and creating a competitive learning environment in the higher education system; strengthening the internationalization of educational processes, striving to create a unified global educational platform while preserving the positive national customs of educational institutions in different countries (Balsara, 1996; Kovbasyuk, 2011; Zhiltsov, 2013; Kuts and Dolgushina, 2015; Kuzhelev and Zhitar, 2016).

4. Conclusion

The system of higher education in European countries, including Ukraine in recent years, is in a transformational state, which leads to irreversible negative changes in the personality-society-economy triad, in particular, we are talking about the lack of effectiveness of mechanisms for the implementation of accessibility and quality of higher education, the lack of educational management methods and their inconsistency with the modern education model, as well as insufficient participation of society and business in the educational space. If the Economic Quality value increases by 1%, then the Education Index will decrease by 0.81%, if the Personal Freedom value increases by 1%, the Economic Quality will decrease by 0.33%, and if the Social Capital is increased by 1%, Education will increase by 0.35%.

Considering the above information, the management of higher education in the context of global economic transformations should become an effective activity of various subjects of the educational space in two interrelated directions:

- ✓ ensuring the functioning of the educational industry;
- ✓ participation in the development, adoption and implementation of the regulatory framework;

- ✓ interaction of state bodies with public associations and organizations that contribute to the harmonization, humanization and civil law consolidation of various organizational and legal forms of relations between participants in the educational process;
- ✓ attraction of forces and means of legal entities and individuals.

The development of the education system: creation and implementation of relevant programs, including those aimed at its modernization; improvement of the content of forms and methods of educational activities; preparation, adoption and implementation of regulatory documents that should stimulate the activities of higher educational institutions, as well as their management and state-public management of higher education through the creation of self-regulatory governance structures based on the optimal combination of state and public foundations in the interests of man, society and state.

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