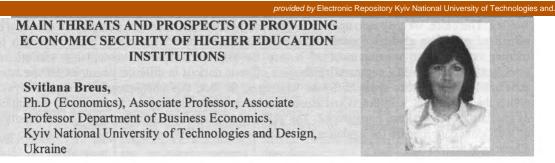
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Abstract. The article deals with the main aspects of functioning of higher education institutions in modern conditions, special attention is paid to the issues of quality of the higher education and economic security of modern universities in system unity and objective grounds for it. The main negative tendencies are identified both in the field of higher education and economy in general, their increasing leads not only to the impairing of Ukrainian higher education and reduce the level of economic development in the country but threat the economic security of modern universities thus the country and the state economic security and national security on the whole. Particularly it is claimed that implement an idea of increasing quality of the higher education will level or decrease the negative influence of treats to the economic security at all. In future it can also have positive impact on the level of training and unite the education, science and production. Taking into account that one of the principal aim of higher education institutions is to provide training competative specialists both in internal labor market and international labor market. The paper focuses on training a world-class specialists will favor state economic growth.

Key words: higher education institutions (modern universities), higher education, national security, economic security, country economic security, state economic security, enterprise economic security.

### **1. Introduction**

Nowadays the urgent aim for the higher education institutions and for the state is providing the economic security which can be maintained by training competative specialists both in internal labor market and international labor market. Implementation of this aim clashes with the lack of sufficient financing for modern universities and it has the negative impact on their economic security and thus national security in general. In this context the role of higher education increases providing the economic development of the state and modern universities as the innovators and the knowledge centres. This fact increases their responsibility for results of training specialists.

#### 2. Materials and methods

The case study of providing economic security of modern universities is particularly important in the Ukrainian economic realia. As a result, functioning of modern universities optimize through the prism of perception of objective reality considering their correlation with economic entities and the important role in providing the state economic development. The previous statement requires to focus on problem of quality of modern universities and economic security of modern universities in system unity. That in turn needs consideration of modern universities' economic security considering in the following scheme: national security - economic security country economic security - state economic security - enterprise economic security.

The objective grounds, except others, are:

- at market economy modern universities are the innovators and the knowledge centres;

-higher education institutions have a lot of common features with enterprises in functioning, it means they follow the same market principles as the enterprises in "classical meaning";

-modern universities are both the important elements of social and economic system and the economic entities which aims are: maintain the consumer service and enough profit-making for effective activity, to raise competitive capacity, to provide their economic security in accordance state economic security and national security in general;

- in scientific literature there is no fundamental investigation of aspects as for providing economic security of modern universities in cooperation with state and employers in the labor market;

- In contemporary researches there is no constant interpretation of the term "economic security of modern universities" (the most frequently it is characterized as a condition when there are enough resources to avoid, reduce or protect from main treats of its activity) [1];

- at the Ukrainian labor market there are tendencies of graduates' low educational level which does not satisfy the requirements of economy, state and employers.

-at the labor market there is a necessity of interaction between the state, higher educational institutions and employers for setting prices on the intellectual capital, to involve the nation intellectual capital to the national production sector, providing modern universities' economic security, state economic security and national security in general;

-higher education's institutions play an important role in the personnel selection to maintain needs of the industrial sector in relation to maintain an innovative development of Ukrainian economy, particularly machine-building complex, food industry and light industry which due to the possibility to satisfy the economy needs have a wide range of its products. As mentioned above it becomes significant in transition of the world economy to the 6-7<sup>th</sup> technological paradigm (at present the features of the 6-7<sup>th</sup> technological paradigm becomes more and more visible: the 6<sup>th</sup> gives rise to a new stage in the development of medicine and biotechnology, the 7<sup>th</sup> — to the creation of "cold fusion" technology which will radically change the energetical potential of the world civilization [2].

In Ukrainian economy the domestic content of higher technological paradigm is 4 % – for  $5^{\text{th}}$  and 0,1 % – for  $6^{\text{th}}$ . GDP growth by introducing new technologies in Ukraine estimates only 0,7 % while in well-developed countries this index reaches 60 % and even 90 % [3]. Such a situation in Ukraine requires drastic measures which providing the transfer from extensive economic growth model to the increasing intellectual and technological potential of the national economy [4].

# 3. Results

In general, the negative tendencies are more frequently observed in the sphere of higher education which can be considered as a result of a large number of factors. These tendencies cause the low educational level, worse the quality of higher education and the economic security of higher education institutions and in turn national security on the whole.

These trends, in particular, include:

1. Redusing number of the institutions of general education. The trends in redusing number of applicants to the universities partially caused by redusing number of pupils in the institutions of general education (Table1). Thus during years 2010-2015 the number of general educational institutions reduced for 14,78 % and number of pupils in them reduced for 12,0 %. In the context of study matters the number of graduates of general educational institutions who got III school level (Certificate of Complete General Secondary Education), their number reduced for 37,09 %.

2. Redusing number of the accepted students and graduates of the universities. According to the dates of Table 2 during years 2010-2015 is noticed reducing both the applicants and the graduates of higher education institutions (before the adoption of the Law of Ukraine "On Higher Education" №1556-VII Big 01.07.14 [6] higher education institutions were divided into the levels of accreditation (I-IV)) on 33,85 % and 29,28 % in year 2015 with regard to 2010.

Table 1

# The number of general educational institutions, the number of pupils, graduates and their growth rate during years 2010-2015 [formed by dates 5]

At the beginning of the school year	Number of institutions, thousands	Changes in number of institutions in comparison with the previous year, %	The number of pupils in the institutions of general education,thousands	Changes in number of pupils in comparison with the previous year, %	The number of the second level graduates from institutions of general education,thousands	Changes in number of the second level graduates in comparison with the previous year, %	The number of the third level graduates from institutions of general education (got the Certificate of Complete General Secondary Education),thousands	Changes in number of the third level graduates in comparison with the previous year, %
2010/11	20,3	Х	4299	Х	566	Х	364	X
2011/12	19,9	-1,97	4292	-0,16	480	-15,19	215	-40,93
2012/13	19,7	-1,01	4222	-1,63	441	-8,13	329	53,02
2013/14	19,3	-2,03	4204	-0,43	411	-6,80	304	-7,60
2014/15 <sup>1</sup>	17,6	-8,81	3757	-10,63	339	-17,52	247	-18,75
2015/16 <sup>1</sup>	17,3	-1,70	3783	0,69	336	-0,88	229	-7,29

<sup>1</sup>Excluding the temporarily occupied territory of Autonomous Republic of Crimea, Sevastopol and the zone of the counterterrorist operation.

Table 2

The number of higher educational institutions, the number of accepted students and graduates and their growth rate during years 2010-2015 [formed by dates 7]

Institutions of III – IV accreditation	Years						
level	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	
The number of institutions of III –	330	326	316	309	277		
IV accreditation level – totally, pcs							
Changes in number of institutions of	Х	-1,21	-3,07	-2,22	-10,36	3,97	
III – IV accreditation level in							
comparison with previous year, % The number of institutions of III –	231	227,0	220,0	218,0	197,0	208,0	
IN accreditation level state and	231	227,0	220,0	216,0	197,0	208,0	
municipal ownership							
Changes in number of institutions of	Х	-1,73	-3,08	-0,91	-9,63	5,58	
III – IV accreditation level of state							
and municipal property in							
comparison with previous year, % The number of institutions of III –	99,0	99,0	96,00	91,0	80,0	80,0	
IN accreditation level of private	99,0	99,0	90,00	91,0	80,0	80,0	
ownership							
Changes in number of institutions of	Х	-	-3,03	-5,21	-12,09	-	
III – IV accreditation level of private							
property in comparison with the							
previous year, %							
Number of students – totally, persons	2066667,0	1899138,0	1770311,0	1673287,0	1437955,0	1375160,0	
Changes in number of students of	Х	-8,11	-6,78	-5,48	-14,06	-4,37	
III – IV accreditation level in							
comparison with the previous year, %							

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Institutions of III – IV accreditation	Years						
level	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	
Accepted – totally, persons	381362,0 <sup>1</sup>	30731,0 <sup>1</sup>	331164,0 <sup>1</sup>	337420,0 <sup>1</sup>	291647,0 <sup>1</sup>	259904,0 <sup>1</sup>	
Changes in number of accepted students of III – IV accreditation level in comparison with the previous year, %	x	-91,94	977,62	1,89	-13,57	-10,88	
Graduated – totally, persons	528875,0 <sup>2</sup>	515032,0 <sup>2</sup>	505420,0 <sup>2</sup>	471717,0 <sup>2</sup>	405392,0 <sup>2</sup>	374028,0 <sup>2</sup>	
Changes in number of graduated students of III – IV accreditation level in comparison with the previous year, %	x	-2,62	-1,87	-6,67	-14,06	-	
Number of students per 10,000 population <sup>3</sup>	476,0	439,0	410,0	389,0	335,0	322,0	

<sup>1</sup> Accepted persons for the initial training cycle

<sup>2</sup> Graduated specialists

<sup>3</sup> The calculation uses population of: dates for 2010/1 academic year - 01.01.2011, 2011/12 - 1.01.2012, 2012/13 - 1.01.2013, 2013/14 - 1.01.2014, 2014/15 - 1.01.2015, 2015/16 - at 01.01.2016.

On the basis of steady reducing of accessible and permanent popu ation (as seen from Table 3 for 6,97 %), it is possible to confirm that in future the reducing of students' amount (from 476,0 per 10000 popu ation from 2010 till 322,0 in year 2015) will intensify and change for the worse, it will in turn cause deterioration of financial and economic activity of higher education institutions, material and technical conditions and their economic security level. Thus, this fact will increase threats for the economic security level of higher education institutions and state economic security then national security on the whole.

Table 3

			[lormed by dates b]	
The number of	Changes in number of	The number of	Changes in number	
accessible	accessible population	permanent population,	of permanent	
population, totally on	in comparison with the	totally on 1 01.,	population in	
101., thousands	previous year, %	thousands people	comparison with the	
people			previous year, %	
45962,9	Х	45783	Х	
45778,5	-0,40	45598	-0,40	
45633,6	-0,32	45453	-0,32	
45553	-0,18	45373	-0,18	
45426,2	-0,28	45246	-0,28	
42929,3	-5,50	42760	-5,49	
42760,5	-0,39	42591	-0,39	
	accessible population, totally on 1 01., thousands people 45962,9 45778,5 45633,6 45553 45553 45426,2 42929,3	accessible population, totally on 1 01., thousands peopleaccessible population in comparison with the previous year, %45962,9X45778,5-0,4045633,6-0,3245553-0,1845426,2-0,2842929,3-5,50	accessible population, totally on 1 01., thousands peopleaccessible population in comparison with the previous year, %permanent population, totally on 1 01., thousands people45962,9X4578345962,9X4578345778,5-0,404559845633,6-0,324545345553-0,184537345426,2-0,284524642929,3-5,5042760	

The number of accessible and permanent population during years 2010-2015 [formed by dates 8]

<sup>1</sup>Excluding the temporarily occupied territory of Autonomous Republic of Crimea, Sevastopol and the zone of the counterterrorist operation.

<sup>2</sup> The calculation uses population of: dates for 2010/11 academic year -01.01.2011, 2011/12 - 1.01.2012, 2012/13 - 1.01.2013, 2013/14 - 1.01.2014, 2014/15 - 1.01.2015, 2015/16 - at 01.01.2016.

3. Redusing number of the institutions of higher education. According to the dates from the Table 2 during years 2010-2015 it is found out the redusing number of the institutions of higher education and students in them. Thus, the number of institutions of III – IV accreditation level of state and municipal property – for 9,96 % in 2010 against year 2010, the number of institutions of III – IV accreditation level of private property – for 19,19 %. However during that period reducing students' number prevailed over reducing number of institutions of higher education both state and municipal property and private property was 33,46 % in 2010-2015. But this factor is vague, on the one hand, it increases unemployment rate of of teaching staff but on the other hand, in fututure reducing of non-competitive universities will improve the quality of higher education.

Absence of preferences in sequential entering the Vocational Schools (Profesijno-Tecnichne Uchylyshche), Vocational Secondary School (Technikum/Colledges) then Universities harms the economy. It causes the knowledge gap further negative transformations at the labor market. The state does not give benefits in such a sequential entering to the institutions of higher education despite their specialization.

In relation to the issue of study it is advisable to note that such trends in the sphere of higher education deepen disparities in the Ukrainian labor market. Moreover, there are inconsistencies between labor market needs, demands of employers, economy needs and amount and quality of graduates training.

As a result, negative trends in the sphere of higher education continue to increase and their forming factors together cause the competition between the universities for students and between graduates at the labor market, so have the negative impact on the quality of higher education, economic security of higher education institutions, state economic security then national security on the whole. It has been found that the main threats are: reducing number of higher education institutions, students at all and also applicants and graduates of modern universities.

## 4. Conclusions

The results indicate that negative trends as in the sphere of higher education and in the economy in general have the negative impact on the quality of higher education and lower the level of economic development but cause treats economic security of higher education institutions, country and state economic security then national security on the whole. According to the Constitution Of Ukraine: (article 3) 'An individual, his life and health, honour and dignity, inviolability and security shall be recognised in Ukraine as the highest social value' [9], the implement an idea of increasing quality of the higher education will level or decrease the negative influence of treats economic 'security of higher education institutions, country and state economic security then national security at all. Futhermore, in future:

- can also have positive impact on the level of training, as a result, remove the inconsistencies between labor market needs, demands of employers, economy needs and amount and quality of graduates training.

- lead to bridge the gap of communication between education, science and industry (it can be considered one of the causes isolation knowledge gained in local universities from the requirements of employers, as the leaders of many businesses are not interested / have no financial incentives to participate in training for needs of businesses: they purchase ready-made foreign development is less risky and less costly) [10].

Taking into account that one of the principal aim of higher education institutions is to provide training competative specialists both in internal labor market and international labor market. The study focuses on training a world-class specialists will favor state economic growth.

Further researches provide the development of methodological approaches to the evaluation of economic security of higher education institutions, the important elements of which are previous prospects and threats.

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