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## **Evaluation of competitive advantages of Ukrainian higher education institutions in the European education market**

*The system of external factors that have a significant impact on the level of competitiveness of higher education is closely interrelated with its activities, and includes: financial and economic; organizational and legal; political; demographic factors, factors of ensuring the competitiveness of higher education institution. We have found out Ukraine's rank in the global index competitiveness in terms of the component «Higher Education and Professional Training». We have identified external and internal factors that directly influence the competitiveness of higher education institutions. We have assessed the competitiveness of domestic higher education institutions in the European educational service market. We have studied their strengths and weaknesses. We have developed a mechanism for providing Ukrainian higher education institutions with competitiveness in the European educational service market, the basis of which involves functions, methods, levels, elements, means and tools of management for the higher education to be formed and to function effectively in the European educational service market. Our findings offer a set of measures to increase the competitiveness of Ukrainian higher education institutions and strengthen their position in the European educational service market. The proposed strategic steps towards increased competitiveness of Ukrainian higher education institutions will reduce the outflow of Ukrainian prospective students abroad and strengthen the competitive position of domestic higher education institutions in the European educational service market.*

**Keywords:** *competitiveness; higher education system; European educational service market; higher education institutions; competitive advantages; prospective students.*

**Target setting.** Over the past few years, higher education in Ukraine has greatly changed. According to the data of CEDOS analytical center, about 82 thousand Ukrainian students chose to study abroad in 2021 [1]. After Ukraine joined European educational space, it sharpened a competitive struggle between domestic and European higher education institutions and was the driving force behind the intensive development of the international educational service market. Ukrainian HEIs failed to catch up with European. The outflow of Ukrainian prospective students to European education institutions increased a competition between HEIs in the educational service market and compelled them to fight more actively for potential prospective students both in Ukraine and abroad. To provide Ukrainian HEIs with a high level of competitiveness in the European educational service market, it is necessary to create more effective and competitive system of higher education by stimulating HEIs to form their own competitive advantages, which would allow them to retain good positions in the Ukrainian educational service market. Decrease in the number of students at Ukrainian HEIs and the outflow of the best prospective students to European HEIs for better quality education and subsequent employment has become an urgent problem in the system of higher education.

**Actual scientific researches and issues analysis.** Domestic researchers, financiers, analysts, politicians and sociologists have paid much attention to the study of competitiveness of Ukrainian HEIs in the European educational service market, and further development of practical recommendations needed to strengthen Ukraine's higher education competitiveness in the global economy. Significant experience of competitiveness of domestic higher education institutions in the European educational service market has been accumulated in the works of Ukrainian scholars: T.Boholib, I.Kaleniuk, E.Libanova, T.Obolenska, A.Diakon. The output of foreign economists E.Heckscher, B.Olin, P.Kruhman, K.Lancaster, R.Lucas, M.Porter, P.Drucker, H.Hamel, K.Prahalad, and others set forth the foundations of competitive advantage theory.

The **purpose** of the study is to develop a mechanism for forming the competitiveness of Ukrainian HEIs based on functions, methods, levels, elements, means and tools of management, to assess the competitiveness of Ukrainian higher education institutions in the European educational service market, and to justify ways of increasing their competitiveness.

**Results.** After Ukraine joined the European educational and scientific space, it significantly intensified higher education competition between Ukrainian and European education institutions. Internal and external factors have made Ukrainian HEIs practically uncompetitive compared to European higher education institutions.

One of the evidences that proves the decline in the competitiveness of Ukrainian HEIs is the fact that only six Ukrainian universities in 2020 were included in the ranking of the world's top 1000 universities according to The QS World University Rankings (V.N. Karazin Kharkiv National University is ranked 491, Taras Shevchenko National University of Kyiv is ranked 541–550, National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute» is ranked 651–700, National Technical University «Kharkiv Polytechnic Institute» is ranked 701–750) [2].

The competitiveness of higher education primarily depends on the country's economy competitiveness and the level of education expenditures. In order to make higher education in Ukraine competitive, it is necessary to adopt experience of European countries that enjoy this success. According to the Global Competitiveness Index (GCI) 2018–2019 published by the World Economic Forum, the United States is ranked first, Singapore – second, Germany – third (Ukraine – 83rd out of 140 countries across the world) in the «Higher Education and Professional Training» ranking indicator [3, 4].

Table 1 shows Ukraine's and some other countries' ranks in the global competitiveness index in terms of the «Higher Education and Professional Training» indicator.

*Table 1*  
*Countries' ranks in the global competitiveness index in terms of the «Higher Education and Professional Training» indicator, GCI*

Countries' ranks in the global competitiveness index	Ranking Position			
	«Higher Education and Professional Training» Indicator			
	2015–2016 (140 countries)	2016–2017 (138 countries)	2017–2018 (137 countries)	2018–2019 (140 countries)
Ukraine	79 5,0	85 5,1	81 5,1	83 4,1
Poland	41 5,1	36 5,1	39 5,09	37 4,5
Germany	4 5,6	5 5,5	5 5,7	3 5,4
Russia	45 5,0	43 4,5	38 4,6	43 4,1
USA	3 5,9	3 5,7	2 6,12	1 5,7
France	25 5,30	21 5,5	22 5,41	21 5,3
England	18 5,56	20 5,5	20 5,48	19 5,4
Switzerland	4 6,0	4 6,0	5 6,07	5 6,0

*Source:* Authors' own design based on the data [3]

Over the last 5 years, the number of Ukrainian prospective students who choose European education institutions has increased, depending on their financial capabilities, level of foreign language proficiency and individual wishes. The main motivating factors are imperfection of the Ukrainian higher education system and possible employment abroad. About 80,000 Ukrainian graduates are currently studying outside Ukraine [5]. During the period from 2015 to 2019, the number of prospective students who went to study in other countries increased by 155 %. The total number of prospective students who left for and returned from different countries during 2015–2019 is shown in Table 2.

Table 2

Total number of students who left for and returned from different countries during 2015–2019

Country	Number of Outgoing Students				Number of Incoming Students				
	2015	2016	2017	2018	2015	2016	2017	2018	2019
Ukraine	49928,0	68209,0	77429,0	77639,0	60037,0	57583,0	54144,0	52768,0	49632,0
Belarus	35102,0	28908,0	25768,0	22412,0	14924,0	15884,0	16548,0	17570,0	16886,0
China	770665,0	819695,0	868113,0	928090,0	108217,0	123127,0	137527,0	157108,0	178271,0
Czech Republic	12373,0	12526,0	12542,0	13159,0	41149,0	41715,0	42812,0	44261,0	45678,0
Denmark	5471,0	6048	5079,0	5313,0	4832,0	6516,0	-	-	-
Estonia	4190,0	4332,0	4022,0	3891,0	2230,0	2859,0	3476,0	3917,0	3998,0
Germany	118499,0	117098,0	118090,0	122195,0	210542,0	228756,0	244575,0	258873,0	264880,0
India	215953,0	257004,0	304013,0	332033,0	38992,0	41993,0	44766,0	46703,0	45432,0
Latvia	6022,0	5801,0	5606,0	5297,0	4477,0	5255,0	6465,0	6130,0	6110,0
Poland	23821,0	23866,0	24231,0	24918,0	27767,0	34664,0	43988,0	54734,0	63925,0
Malaysia	62505,0	64725,0	65087,0	63253,0	99648,0	111443,0	124133,0	100765,0	122823,0

Source: Authors' own design based on the data [6]

Ukrainian prospective students primarily choose to study in France, Poland, Germany, England, and Switzerland. However, few Ukrainian school graduates can afford to get a higher education abroad. According to CEDOS analytical center, only 8 % of the total number of Ukrainian prospective students chooses to study abroad. Poland is the most popular country with Ukrainian applicants. It is preferred because there is availability of higher education and low financial costs (350 euros cover student's monthly needs, 250 euros of which go for paying rent and other accommodation charges). Every year from six to nine thousand Ukrainian prospective students come to Poland. Today, more than 35,000 young Ukrainians study there [5]. Studying in Poland for a Ukrainian student costs about 900 euros per year at a private higher education institution, and about 2,000 euros per year at a state university.

France is also rather popular with Ukrainian prospective students. Currently, about 1,500 Ukrainian students study there. Higher education institutions in France are funded by the state, but students must pay annual fee depending on the chosen specialty and HEI in the amount of 200–500 euros per year. They pay between 600 and 1,500 euros per month for food and accommodation [5].

About 9,000 Ukrainian students seeking high quality humanitarian or technical education chose Germany. Although education is free there, they need to pay between 300 and 600 euros per year. German study visa is an essential condition which proves a student's ability to pay. It costs 8,640 euros. The main problem for Ukrainian students is the level of German language proficiency, but for 6000–10000 euros you can take preparatory courses to strengthen your level of German language proficiency and get ready for exams [5; 6; 7]. The advantages of studying in Germany for a Ukrainian student are: an opportunity to receive a scholarship from a German foundation which covers costs of living and a student's card, which allows using transport for free.

HEIs in England are most popular with the Ukrainian elite. Today, about 1,000 Ukrainian students study in England. Tuition fees depend on the chosen specialty and the HEI and ranges from 15,000 euros to 40,000 euros per annum.

About 800 Ukrainian prospective students receive higher education in Switzerland, where a study program costs about 20,000 euros. It should be noted that only in Swiss universities students can pay for their tuition in Bitcoins [8; 9].

Ukrainian students also choose to study in Canada, the Czech Republic, Italy, Spain, Austria, and Slovakia.

After we assessed the outflow of Ukrainian students and the position of Ukrainian HEIs in the European educational service market, it is obvious that we need to strengthen the quality of higher education to meet the requirements of European standards so that they can be competitive enough [10]. Changes in the system of Ukrainian higher education and a wide range of European HEIs in the domestic educational service market make it possible to have two levels of competition in the educational service market:

- micro level competition (competition between HEIs for prospective students);
- macro level competition (competition between HEIs of different countries).

We share A.Diakon's idea who defines competitive advantages of the higher education system as an essential set of characteristics and properties that allow:

1. an education system to perform fully its main functions (highly qualified personnel training, carrying out research, implementing economic and social functions, etc.);

2. to act as an effective component of the economic system and a real factor in the social and economic development of the country;

3. to compete effectively at different levels and increase its share in the global educational service market [11].

Thus, the competitiveness of HEIs in the educational service market depends on a number of factors:

*Internal factors:*

- personnel factor (highly qualified scientific and pedagogical staff, advanced training, best specialists involvement);
- educational and scientific factor (modern study programs, scientific activity of the institution);
- marketing factor (price policy, image of HEI, career guidance and advertising activities, HEI's world ranking position);
- innovation factor (innovative teaching methods, use of up-to-date information and communication technologies, own innovative developments, innovative thinking development);
- organizational factor (management style and methods, extensive use of flexible education forms, use of individual approach, comfortable living conditions).

*External factors:*

- economic factors (country's economic situation, globalization, economic growth indicators, GDP, price level, unemployment rate, state expenditure on education; balanced labor market);
- demographic factor (population number, and migration processes);
- political factor (political stability in the country, terrorist threats, public discontent degree);
- geographical factor (good geographical location, international relations, transport links, population density);
- biological factor (epidemiological situation in the country, COVID 19).

The study of dominant factors influencing the competitiveness of HEIs allowed us to assess both strengths and weaknesses of Ukrainian HEIs compared to European ones, to examine their capabilities and some risks to form an effective mechanism for managing competitiveness of Ukrainian HEIs (Table 3).

Table 3

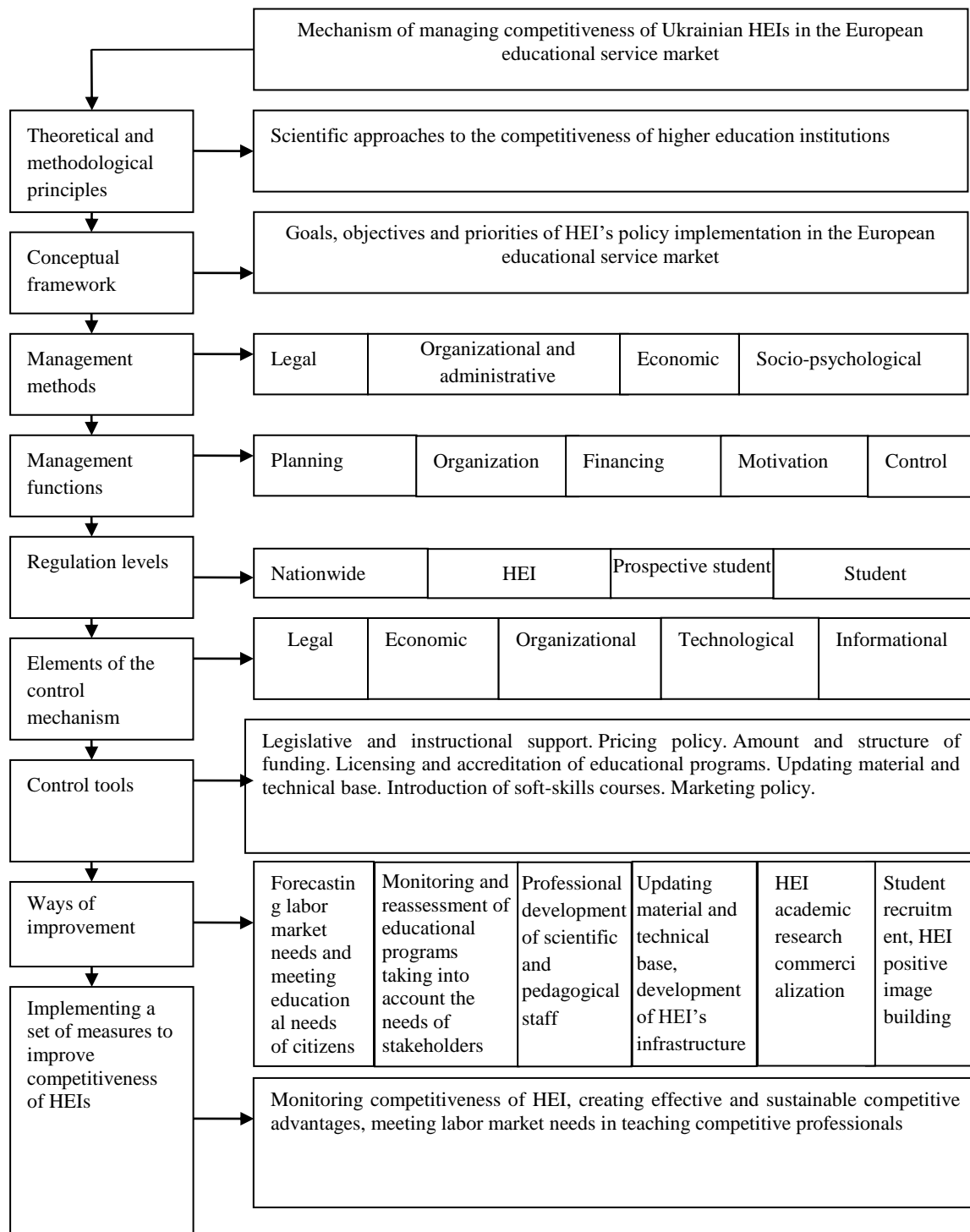
*Assessment of HEIs' strengths and weaknesses in the European educational service market*

Potential internal advantages (strengths)	
Ukrainian HEIs	European HEIs
<ul style="list-style-type: none"> <li>– powerful human resources</li> <li>– developed network of HEIs</li> <li>– own assets (premises, laboratories, dormitories)               <ul style="list-style-type: none"> <li>– low cost of education</li> </ul> </li> <li>– wide range of educational programs               <ul style="list-style-type: none"> <li>– teaching foreign students</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>– powerful human resources</li> <li>– high quality educational services</li> <li>– developed research activities</li> <li>– cooperation between international HEIs and business sector</li> <li>– international projects and grant programs participation</li> <li>– long-term production practices at leading enterprises</li> <li>– developed system of external knowledge and technology transfer               <ul style="list-style-type: none"> <li>– high level of graduate employment</li> </ul> </li> </ul>
Potential internal disadvantages (weaknesses)	
Ukrainian HEIs	European HEIs
<ul style="list-style-type: none"> <li>– insufficient funding for education and science               <ul style="list-style-type: none"> <li>– low quality educational services</li> <li>– outdated material and technical base</li> </ul> </li> <li>– qualification inconsistency with the requirements of employers</li> <li>– poor foreign language proficiency of teaching staff</li> <li>– political instability and military conflict in the east of the country</li> <li>– low position of Ukrainian HEIs in the European educational service market</li> <li>– promising and talented young people leaving for permanent residence abroad</li> </ul>	<ul style="list-style-type: none"> <li>– high cost of education</li> <li>– global migration of young people               <ul style="list-style-type: none"> <li>– financial risks</li> </ul> </li> <li>– external economic situation</li> <li>– global economic crises               <ul style="list-style-type: none"> <li>– high cost of living</li> <li>– language barrier</li> </ul> </li> <li>– epidemiological situation in the country</li> </ul>

Source: systematized by the authors

By analyzing Table 3, we can state that Ukraine has a strong human potential and is able to intensify competitive advantages (human resources, tuition fees, and a wide range of education programs). However, the weaknesses, expressed in the prism of negative indicators (insufficient funding, outdated material and technical base, poor foreign language proficiency of scientific and pedagogical staff), are unfavorable for strengthening and finding new competitive advantages of Ukrainian HEIs. The demographic, political and economic situation in the country affects activities of HEIs and are of some threats that reduce the competitiveness of Ukrainian HEIs in the European educational service market.

Most of the theoretical, methodological and practical issues related to competitiveness of Ukrainian HEIs remain unresolved. Peculiarities of the European educational service market development and Ukrainian HEIs are not taken fully into account. It is equally important to study problems of and possible improvements for managing competitiveness of HEIs in the European educational service market (Fig. 1).



Source: Authors' own design

Fig. 1. Mechanism of managing competitiveness of HEIs in the European educational service market

The developed mechanism of managing competitiveness of HEIs in the European educational service market solves the problem of how to increase competitive opportunities for HEIs and strengthen their positions in the European educational service market.

Increasing the competitiveness of educational services of Ukrainian HEIs, constant growth and improvement in their education service quality by taking into account all the stakeholders' needs will result in long-term in the European educational service market. The main tasks for HEIs should include investors involved research activities as an additional source of funding; teaching innovations with student oriented approaches; high quality educational programs and innovative teaching methods; modern material and technical base; teacher professional growth; academic integrity; internal stakeholders soft skills development; education institution positive image building and active student recruitment.

**Conclusions and prospects for the further research.** We have developed a mechanism for providing Ukrainian higher education institutions with competitiveness in the European educational service market, the basis of which involves functions, methods, levels, elements, means and tools of management for the higher education to be formed and to function effectively in the European educational service market. Our findings offer a set of measures to increase the competitiveness of Ukrainian higher education institutions and strengthen their position in the European educational service market. The mechanism of managing competitiveness of Ukrainian HEIs in the European educational service market will contribute to solving the problem of how to increase competitive opportunities for HEIs by strengthening their position in the European educational service market. At the same time, by offering competitive educational programs we may retain 77639.0 prospective students and attract almost 50,000 foreign students annually. Increase in financial revenues of domestic HEIs by UAH 3,638.6 per annum will improve the competitiveness of Ukrainian HEIs in the European educational service market, by updating outdated material and technical base, promoting teacher and student academic mobility, financial incentives for research and teaching staff, cooperating with the business sector, balancing and harmonizing labor market needs in the chain «student-HEI-employer» in order to meet the real labor market needs quickly.

Further research of the competitiveness of Ukrainian higher education institutions in the European educational service market should focus on international experiences of using European competitiveness criteria, developing a single system of indicators for its evaluation and monitoring.

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#### **Оцінка конкурентних переваг українських закладів вищої освіти на європейському ринку освітніх послуг**

Встановлено, що конкурентоспроможність закладів вищої освіти визначається якісними та ціновими параметрами освітніх послуг і значною мірою залежить від системи фінансово-економічних, організаційно-правових, науково-технологічних, кадрових, управлінських, демографічних та політичних факторів її забезпечення. Визначено позиції України за індексом глобальної конкурентоспроможності в розрізі складової «Вища освіта і професійна підготовка». Виокремлено зовнішні та внутрішні фактори, які мають безпосередній вплив на конкурентоспроможність ЗВО. Проведено оцінку конкурентоспроможності вітчизняних ЗВО на європейському ринку освітніх послуг. Оцінено їх сильні та слабкі сторони. Розроблено механізм забезпечення конкурентоспроможності українських ЗВО на європейському ринку освітніх послуг в основі якого виокремлено функції, методи, рівні, елементи, засоби та інструменти управління за допомогою яких досягається становлення та ефективне функціонування системи вищої освіти на європейському ринку освітніх послуг. Запропоновано комплекс заходів щодо підвищення конкурентних можливостей українських ЗВО та зміцнення їх позицій на європейському ринку освітніх послуг. Запропоновані стратегічні заходи підвищення конкурентоспроможності українських ЗВО дозволять зменшити вплив українських абітурієнтів за кордон та посилять конкурентні позиції вітчизняних ЗВО на європейському ринку освітніх послуг.

**Ключові слова:** конкурентоспроможність, система вищої освіти, європейський ринок освітніх послуг, заклади вищої освіти, конкурентні переваги, абітурієнт.

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