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PESTEL-analysis of the system “state – independent quality assessment agencies”: Political and socio-economic aspects

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Abstract. *The aim of the study.* The article is devoted to determining the influence of political and socio-economic factors on the process of external evaluation of the quality of higher education at the university. The main factors that motivate a thorough analysis of the educational environment are described both from the point of view of the participants in this process and from the point of view of auditors, independent institutions. The analysis of external factors is the first stage of creating an effective strategy for the advanced development of the educational institution and ensuring its financial stability. *Methodology.* The use of PESTEL-analysis as a tool for assessing the impact of external factors on the quality of education is substantiated. The list of criteria (indicators) of external assessment of the quality of educational programs is presented and the use of these criteria for the creation of effective mechanisms of maintenance of the quality of higher education in HEI is offered. *Results.* When considering the relationship “state – independent quality assessment agencies” input parameters are factors of external influence, system parameters – financial performance indicators, management parameters – regulatory framework and criteria for assessing the quality of educational programs, output parameters – recommendations for building an internal quality assurance system education in HEI. Among the political factors of influence can be identified both destabilizing and positive factors on the quality assurance system of free economic zones. Destabilizing factors provoke a constructive response from NAQA in the form of development and active implementation of the regulatory framework in the activities to ensure the quality of education. *Practical meaning.* The criteria for the external evaluation of the educational program and the activities of the NAQA in terms of improving the national regulatory framework respond to the economic challenges facing the quality assurance system of education. In response to social challenges, the system of external evaluation of the quality of education becomes more “flexible” and prone to a variety of methods for solving problems. *Prospects for further research.* The analysis of all these factors, as well as the tools to influence these factors, developed by the NAQA, should be the basis of the strategy for the development of free economic relations and regulations on the development of quality assurance in education. The creation of a tool of technological influence on the analyzed factors by the management of the HEI determines the prospects for further research.

Keywords: quality of education, socio-economic impact, independent agencies, educational program, evaluation criteria.

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PESTEL-аналіз системи «держава – незалежні агенції оцінки якості»: політичний та соціально-економічний аспекти

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Анотація. *Мета дослідження.* Стаття присвячена визначенню впливу політичних і соціально-економічних факторів на процес зовнішньої оцінки якості вищої освіти в університеті. Описано основні чинники, які спонукають до ґрунтовного аналізу освітнього середовища як з точки зору самих учасників цього процесу, так і з точки зору аудиторів, незалежних установ. Аналіз зовнішніх чинників є першим етапом створення дієвої стратегії випереджаючого розвитку закладу освіти та забезпечення його фінансової стабільності. *Методологія.* Обґрунтовано застосування PESTEL-аналізу в якості інструменту оцінки впливу зовнішніх факторів на якість освіти. Представлено перелік критеріїв (індикаторів) зовнішньої оцінки якості освітніх програм та запропоновано використання цих критеріїв для створення дієвих механізмів забезпечення якості вищої освіти у ЗВО. *Результати.* При розгляді зв'язку «держава – незалежні агенції оцінки якості» вхідними параметрами є фактори зовнішнього впливу, параметрами системи – фінансові показники діяльності ЗВО, параметрами управління – нормативна база та критерії оцінки якості освітніх програм, вихідними параметрами – рекомендації щодо розбудови внутрішньої системи забезпечення якості освіти у ЗВО. Серед політичних факторів впливу можна виділити як дестабілізуючі, так і фактори позитивного впливу на систему забезпечення якості ЗВО. Дестабілізуючі фактори викликають конструктивну реакцію з боку НАЗЯВО у вигляді розробки та активного впровадження нормативної бази у діяльність із забезпечення якості освіти. *Практичне значення.* Критерії зовнішнього оцінювання освітньої програми та діяльність НАЗЯВО в частині вдосконалення національної нормативної бази відповідають на економічні виклики, що постають перед системою забезпечення якості освіти. У відповідь на соціальні виклики система зовнішньої оцінки якості освіти стає більш «гнучкою» та схильна до багатоваріантності методів вирішення поставлених завдань *Перспективи подальших досліджень.* Аналіз усіх вказаних факторів, а також інструменти впливу на ці фактори, розроблені НАЗЯВО, повинні бути покладені в основу стратегії розвитку ЗВО і нормативного документу щодо розбудови системи забезпечення якості освіти. Створення інструменту технологічного впливу на проаналізовані фактори з боку менеджменту ЗВО визначає перспективу подальших досліджень.

Ключові слова: якість освіти, соціально-економічний вплив, незалежні агенції, освітня програма, критерії оцінювання.

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1. Introduction.

Ensuring the quality of higher education at the university is a multi-vector process in which each of the areas has a close relationship

with the other, as well as the line “process – result”, “internal evaluation – external evaluation”. The analysis of the factors influencing the quality assurance system, in this case,

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should cover not only internal university processes but also external factors that are caused by the need to accredit educational programs by independent agencies. The transition to another paradigm of accreditation of educational programs has caused a significant revival of higher education institutions in terms of building effective quality systems. Last but not least, this is facilitated by the "rating" environment (positions of domestic universities in international rankings), a new funding formula (distribution of state budget expenditures between higher education institutions based on indicators of their educational, scientific, and international activities) on quantitative indicators. The Ministry of Education and Science of Ukraine in 2020 and the methodology of state certification of higher education institutions in terms of their scientific (scientific and technical) activities, the result of which should be expected this year.

Thus, the financial performance of a higher education institution is in one way or another related to the quality of student training, the quality of research, the quality of evaluation by employers, and so on.

These factors lead to a thorough analysis of the educational environment both from the point of view of the participants in this process and from the point of view of auditors, independent institutions. This paper analyzes the external environment, which determines the process of adjusting the quality assurance system to appropriate conditions.

The analysis of external factors is the first stage of creating an effective strategy for the development of an educational institution and ensuring its financial stability, which can be achieved through the following factors: capital expenditures of the general fund of the state budget; income from the education of domestic and foreign students; income from research and grant activities; income from the provision of paid services; other revenues that are not prohibited by current legislation.

These revenues to the university budget depend on indicators of external evaluation, the content and quantitative value of which is

determined by political, economic, social and other factors. The choice of an acceptable method of analysis of these factors allows in the future to create a long-term strategy for the advanced development of the educational institution. Attention should be paid to the main educational auditors – independent agencies. Since currently there is no normative act on the activities of independent agencies in the process of accreditation of educational programs, this work will focus on the activities of the National Agency for Higher Education Quality Assurance (NAQA).

2. Literature review.

Among the tools for analyzing the factors influencing education should be noted the following:

1. The causal diagram of Ishikawa, an example of which is given in (Milosavljevic et al., 2018) and (Reilly et al., 2014).

2. Deming cycle, the application of which is given in the paper (Aggarwal, 2020).

3. SWOT-analysis, various aspects of its application in education are identified, for example, in the works (Satria and Shahbana, 2020) and (Ali et al., 2019).

4. PEST, PESTE, PESTEL, PESTELI, STEEP, LONGPESTEL-analysis, the evolution and detailed description of which in application to education is noted in the works (Graham, 2007; 2018), (Kok et al., 2009), (Doherty et al., 2012), (Supe et al., 2018), (Walsh et al., 2018), (Ahmad et al., 2019).

The latter tool states that the choice within the article is stopped because it allows from different points of view to analyze external factors (activities of independent agencies). To assess the system of "quality of education", these tools have not been used systematically, determining the relevance of this work.

3. Methodology.

The study used PESTEL analysis to analyze the impact of external factors on the state of the "education quality" system, which has proven to be an effective tool for solving problems of finding optimal mechanisms for the functioning of systems in education and

creating a strategy for implementing these mechanisms. For ease of presentation, the analysis is reduced to an illustrative form with a list of influencing factors and actions of independent agencies to assess the quality of education in terms of responses to external factors. Within the limits of this article, according to the direction, the political, social and economic factors of influence are analyzed. An attempt is made to present the evaluation criteria of educational programs developed by NAQA as a response to one or another external factor. The NAQA in some cases did not provide criteria, the fulfillment of which could be a reaction to an external factor. In this case, the NAQA measures on the development of the external system of quality assurance of higher education are presented.

The figures in the figures show the criteria for external evaluation of the quality of educational programs defined by the NAME:

Criterion 1. Design and objectives of the educational program.

Criterion 2. The structure and content of the educational program.

Criterion 3. Access to the educational program and recognition of learning outcomes.

Criterion 4. Teaching and learning in the educational program.

Criterion 5. Control measures, evaluation of higher education seekers and academic integrity.

Criterion 6. Human resources.

Criterion 7. Educational environment and material resources.

Criterion 8. Internal quality assurance of the educational program.

Criterion 9. Transparency and publicity.

Criterion 10. Learning through research.

4. Research objectives.

The purpose of the article is to study the factors of external influence and measures to respond to them by NAQA, caused by the need to conduct an educational audit in HEI.

5. Results and discussions.

The analysis of the factors of political influence (*Figure 1*) allows us to assert the need for joint work of the Ministry of Education and Science of Ukraine and NAQA to achieve tangible results in promoting domestic education to the world level. Besides, certain criteria for evaluating educational programs are a response to political challenges. With two years of experience in accreditation, they have shown that they successfully change freelancers' worldview in general and guarantors of educational programs and project groups (“designers” of educational programs) in particular.

As for assessing the impact of economic factors on the nature of the external assessment of the quality of education to, as can be seen from *Figure 2*, most factors have a negative color. NAQA activities alone in terms of responding to challenges cannot fully compensate for these factors. The agency provides only a tool for development but does not guarantee a positive result.

The exception is the possibility of developing a business university and forming economic strategic alliances (partnership networks). These economic factors give HEI an understanding of the direction of their activities to ensure financial stability. In fact, we are talking about the transfer of knowledge and technology in several ways – through realizing the potential of research, the possibility of grant activities, the provision of additional educational services and more. The main thing for such a transfer is an effective system of quality assurance of the HEI's educational and scientific activities.

Social factors of influence (*Figure 3*) are closely related to political and economic factors. The activity of NAQA has a certain positive impact on them, but the main “performer” in this case is the HEI. When assessing social factors of influence, the type of HEI, local context, traditions, internationality of the student body, etc., should be considered.

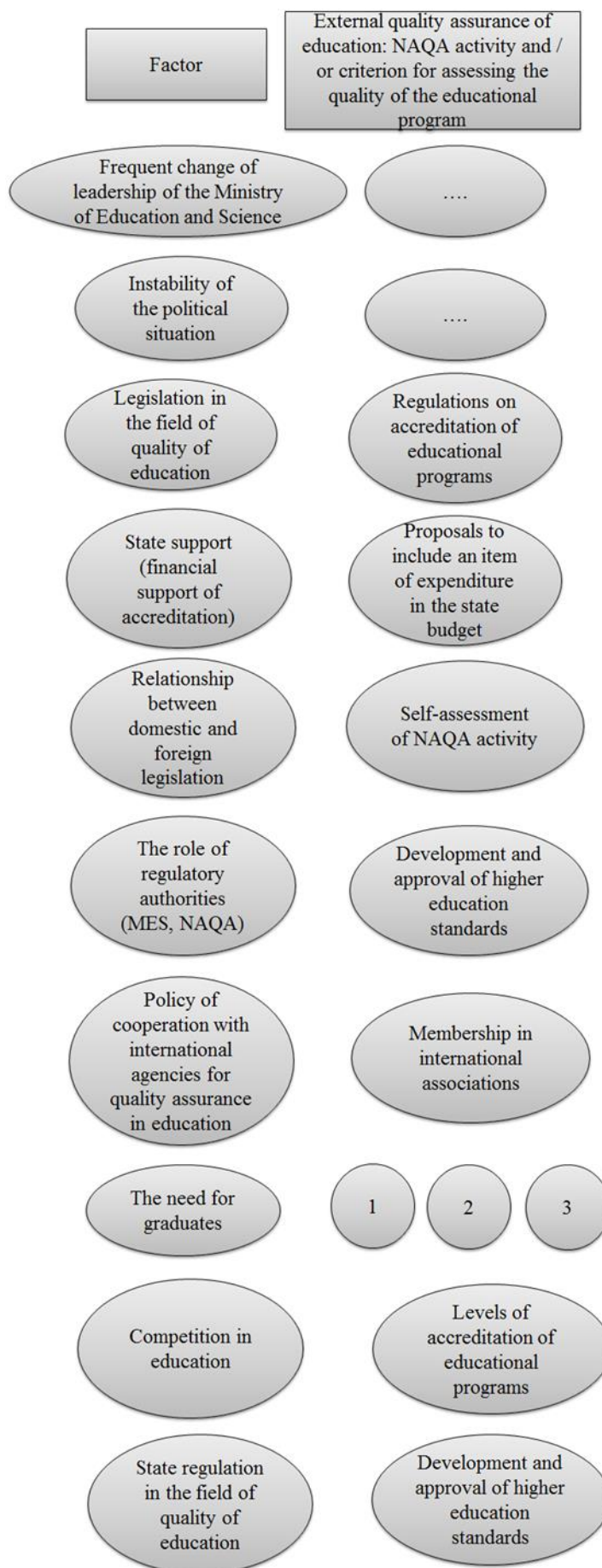


Fig. 1. Political factors of influence

Source: Author's development.

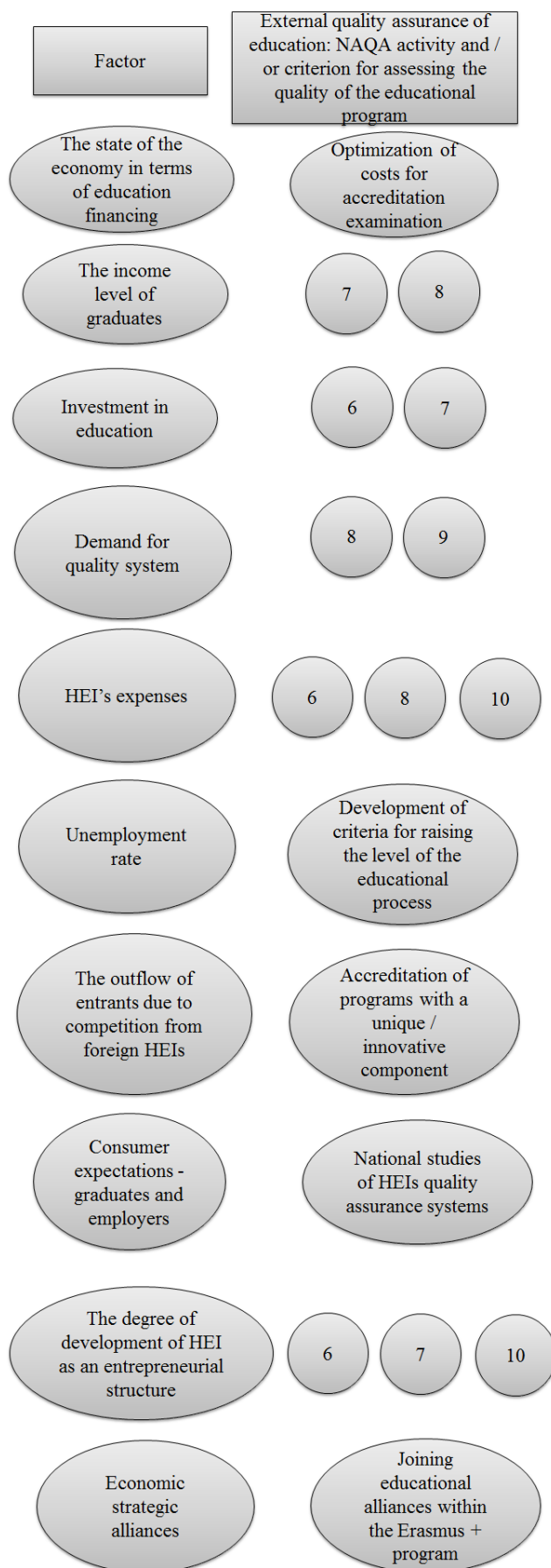


Fig. 2. Economic factors of influence

Source: Author's development.

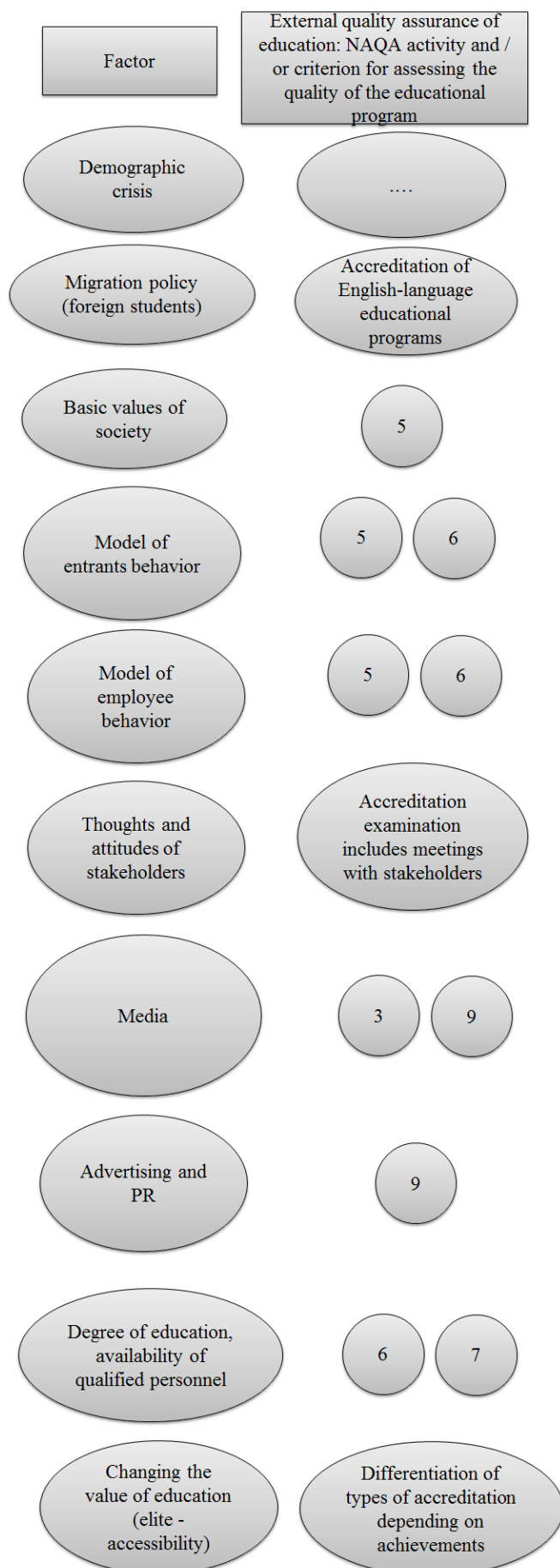


Fig. 3. Social factors of influence

Source: Author's development.

6. Conclusions.

The results of the analysis of external political and socio-economic factors influencing the system of “quality of education” allowed us to draw the following conclusions:

- among the political factors of influence can be identified as destabilizing and positive factors influencing the HEI’s quality assurance system. Destabilizing factors provoke a constructive reaction from NAQA in the form of development and active implementation of the regulatory framework in the activities to ensure the quality of education;

- the criteria for the external evaluation of the educational program and the activities of the NAQA in terms of improving the national regulatory framework respond to the economic challenges facing the quality assurance system of education;

- in response to social challenges, the system of external evaluation of the quality of education becomes more “flexible” and prone to a variety of methods for solving problems;

- the internal system of quality assurance of education in the HEI in preparation for accreditation should be guided by a description of the evaluation criteria of educational programs, which give a detailed description of the response to existing external factors in the educational environment;

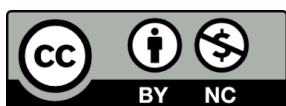
- the HEI’s main task is to create an effective regulatory framework based on NAQA regulatory and recommendation documents.

The analysis of all these factors and the tools to influence these factors, developed by the NAQA, should be the basis of the strategy for developing HEI and regulations on the development of quality assurance in education.

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