

THEORETICAL AND APPLIED ASPECTS OF ECONOMIC PROCESSES IN UKRAINE AND IN THE WORLD ECONOMY

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EXTERNAL EVALUATION OF THE QUALITY OF EDUCATION AS A TOOL OF DEVELOPING A COMPETITIVE EDUCATIONAL ENVIRONMENT AND A FACTOR OF THE NATIONAL ECONOMY GROWTH

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The article is devoted to a brief description of the external evaluation process of the quality of education as a tool to increase the level of socio-economic development of the state. Prerequisites for admission of entrants to higher education institutions and the main challenges facing university quality assurance systems are presented. The description of the external independent evaluation results showed the level of entrants who have the opportunity to continue their education in higher education institutions. A short description of the demographic situation and its consequences for applicants' potential contingent in higher education institutions is given. Simultaneously, an important factor that provokes the improvement of tools for assessing the quality of education is the current state of socio-economic development of the state and the urgent task of raising its level. The evaluation of the educational program's quality must be carried out during the external audit – accreditation of the educational program by the National Agency for Higher Education Quality Assurance or international or domestic independent agencies. The article describes the algorithm of external evaluation of the quality of the educational program (accreditation), proposals for the work of experts during the accreditation examination, identifies the factors influencing the external evaluation of the quality of the educational program on the development of the national economy. The main elements of the Code of Expert Honor, developed within the project "New accreditation system as a means of quality assurance and overcoming corruption in higher education in Ukraine" are presented. The SMART approach is used to assess the educational program's purpose to ensure a socio-economic impact on the labor market.

ЗОВНІШНЯ ОЦІНКА ЯКОСТІ ОСВІТИ ЯК ІНСТРУМЕНТ РОЗБУДОВИ КОНКУРЕНТОСПРОСМОЖНОГО ОСВІТЬОГО СЕРЕДОВИЩА ТА ФАКТОР ЗРОСТАННЯ НАЦІОНАЛЬНОЇ ЕКОНОМІКИ

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Ключові слова:

якість освіти, зовнішня оцінка, соціально-економічний розвиток, SMART-підхід, національна економіка.

Стаття присвячена короткому опису процесу зовнішньої оцінки якості освіти як інструменту підвищення рівня соціально-економічного розвитку держави. Наведено передумови вступу абітурієнтів до закладів вищої освіти та основні виклики, що постають перед університетськими системами забезпечення якості. Опис результатів зовнішнього незалежного оцінювання показав рівень абітурієнтів, які мають змогу продовжувати навчання в закладах вищої освіти. Подано короткий опис демографічної ситуації та її наслідків для потенційного контингенту здобувачів в закладах вищої освіти. При цьому важливим фактором, який провокує вдосконалення інструментів оцінки якості освіти,

є сучасний стан соціально-економічного розвитку держави та актуальне завдання підвищення його рівня. Оцінка якості освітньої програми повинна бути обов’язково реалізована під час зовнішнього аудиту – акредитації освітньої програми з боку Національного агентства із забезпечення якості вищої освіти або міжнародних чи вітчизняних незалежних агентств. В статті наведено опис алгоритму реалізації зовнішньої оцінки якості освітньої програми (акредитації), пропозиції щодо роботи експертів під час акредитаційної експертизи, визначено фактори впливу зовнішньої оцінки якості освітньої програми освіти на розвиток національної економіки. Представлено основні елементи Кодексу честі експерта, розробленого в рамках проекту «Нова система акредитації як засіб забезпечення якості та подолання корупції у вищій освіті Україні». Застосовано SMART-підхід при оцінці мети реалізації освітньої програми як засобу забезпечення соціально-економічного впливу на ринок праці.

Statement of the problem

The formation of effective internal systems for ensuring the quality of education requires an understanding of the

urgent need to create a favorable landscape for students’ organic transition from one level to another and ultimately to the labor market. Simultaneously, at each transition from level to level, the loss of a certain number of applicants due

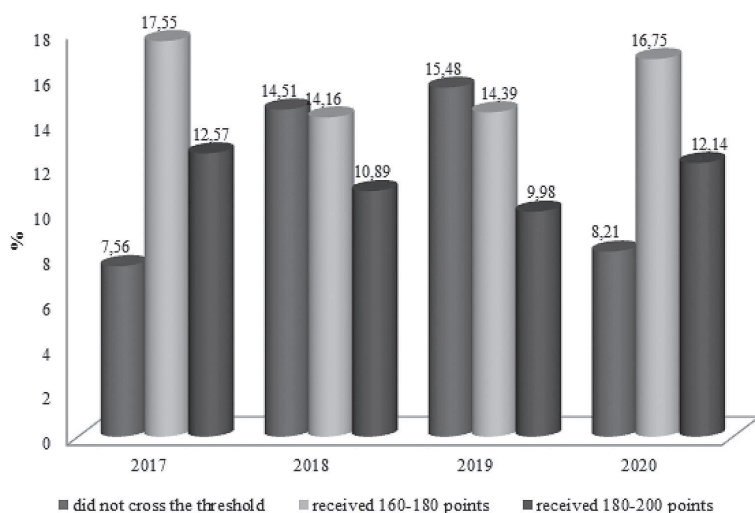


Fig. 1. Excerpt from the results of external independent evaluation, subject “Ukrainian language and literature”

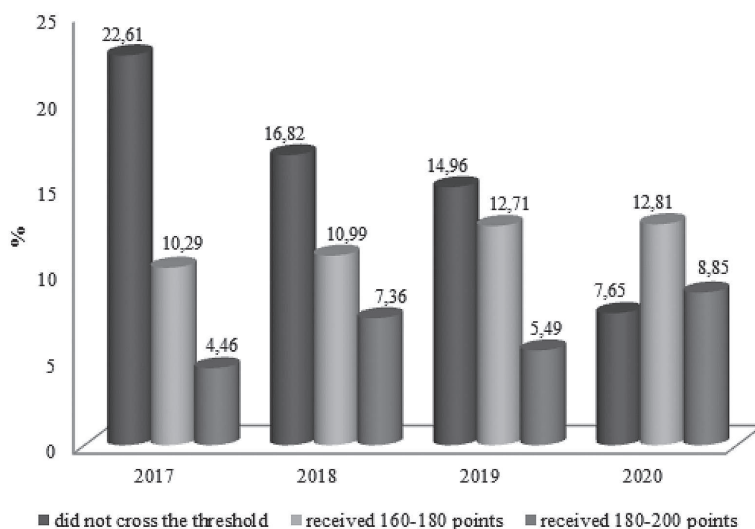


Fig. 2. Excerpt from the results of external independent evaluation, subject “Physics”

to competition, which takes various forms, is inevitable. For example, some external independent evaluation (according to the Ukrainian Center for Educational Quality Assessment, which are given in <https://zno.testportal.com.ua/stat>) for the last four years in the Ukrainian language and literature and disciplines of natural sciences and mathematics block (e.g., physics and mathematics) (Figures 1-3). As can be seen from these figures, the external independent evaluation’s success can be considered quite low because the losses due to failure to overcome the threshold “passed/failed” are significant. If you look at the statistics a little deeper, the situation becomes even more complicated (Figure 4). Data https://osvita.ua/test/rez_zno/ show that the threshold for these subjects could be reached by obtaining a fifth (in the most difficult case) of the maximum number of points. Such a threshold score does not compare with the requirements for successful (formally successful, to be more precise) obtaining a positive assessment based on studying the discipline in a higher education institution (60% of the maximum number of points).

The head of the Ukrainian Center for Educational Quality Assessment, Valery Boyko, in interview (<https://www.ukrinform.ua/rubric-society/3075104-valerij-bojko-kerivnik-ukrainskogo-centru-ocinuvanna-akosti-osviti.html>) notes: “...And when violence begins on social networks, that we take the most stupid or uneducated people to higher education institutions, it is not true, it is manipulation. We only gave the child a chance to take part in the competition. There are levers, both state and local

(the higher education institution’s level), to make decisions. If you want the best to study with you, please set your competitive score at 150; for example, it is done for medicine.

Set yourself at least 175 passing scores, but here the rector must think carefully: on the one hand, he wants to take the best, and on the other – he wants to fill the entire license volume so that all associate professors, professors, and teachers have a job ...”.

As can be seen from the above statistics and the remarks of the head of the Ukrainian Center for Educational Quality Assessment, work with applicants and then with students of higher education in terms of ensuring the quality of their education through the development of an internal system should be a priority and a key element of higher education.

Add difficulties in filling the “bank” of students of the institution reducing the total number of applicants due to educational migration, for example, according to <https://pb.edu.pl/en/2020/11/11/interesting-statistics-about-higher-education-in-poland/> and <https://cedos.org.ua/uk/articles/ukrainske-studentstvo-za-kordonom-dani-do-201718-navchalnoho-roku> there is a constant increase in the number of Ukrainian students in Poland (figure 5).

Due to the outflow of entrants abroad and the demographic situation in Ukraine (the birth rate after 2013 is constantly falling, according to data <https://www.slovoidilo.ua/2020/08/21/infografika/suspilstvo/demohrafichna-sytuacziya-ukrayini-period-nezalezhnosti>) the number of applicants for higher education is monotonically declining and changes in this trend are not expected (Figure 6).

All the above information indicates that higher education institutions face the problem of providing quality education with unfavorable “input data.” This fact forces higher education institutions to improve the internal quality assurance systems of education and, importantly, to receive quality feedback not only from key stakeholders. The evaluation of the quality of the educational program must be carried out during the external audit – accreditation of the educational program by the National Agency for Quality Assurance in Higher Education or international or domestic (soon, after the National Agency for Quality Assurance in Higher Education institutions for quality assessment of higher education

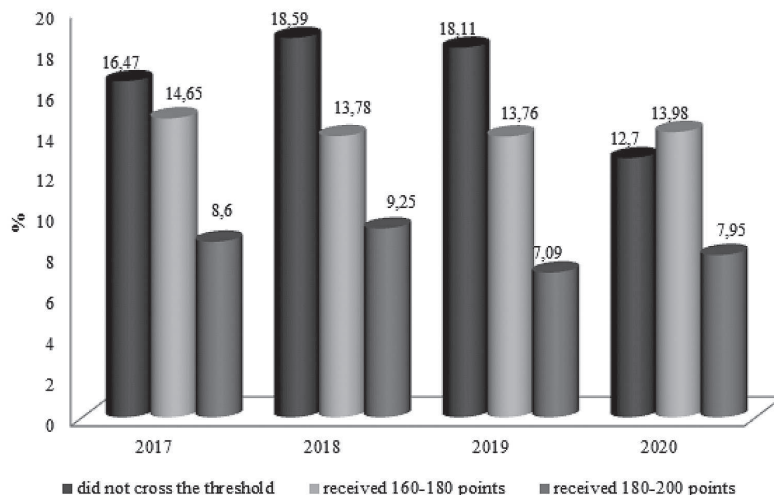


Fig. 3. Excerpt from the results of external independent evaluation, subject “Mathematics“

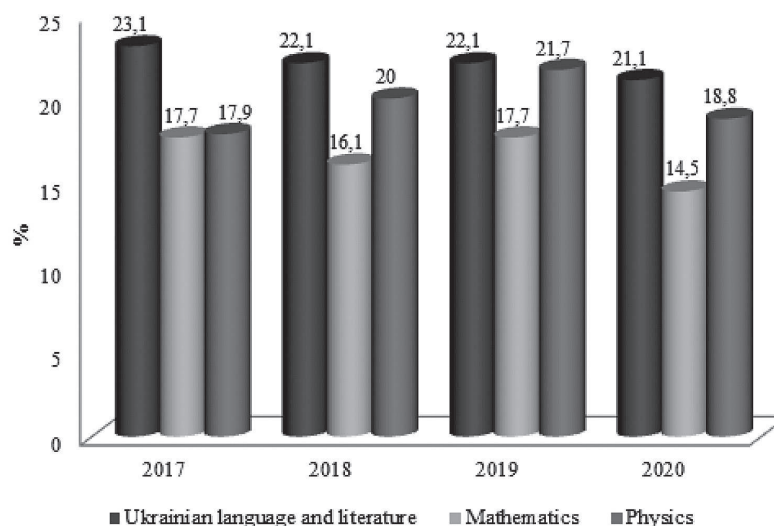


Fig. 4. Excerpt from the results of external independent evaluation, the value of the threshold score “passed / failed”

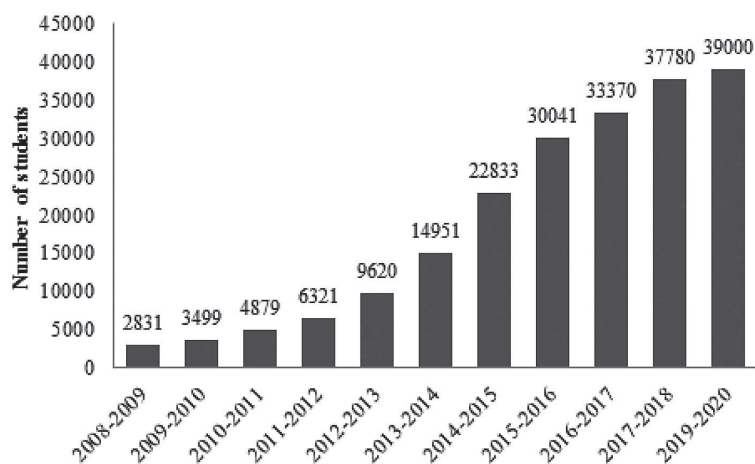


Fig. 5. Ukrainian students in Poland

and its approval) independent agencies. Simultaneously, an important factor that provokes the improvement of tools for assessing the quality of education is the current state of socio-economic development of the state and the urgent task of raising its level. This paper will consider the stage of examining educational programs as a key factor in ensuring the quality of the entire process of external evaluation, a tool for influencing the internal quality assurance systems of educational activities.

Analysis of recent research and publications

Domestic scholars considered the issue of the impact of education in general on the socio-economic development of the state (for example, Usyk [1] in terms of analysis of education and the mechanism of its financial support, Grinkevich [2] in terms of competitiveness management in higher education, Babin [3] in parts of the general description of the issue of quality assurance in higher education by other authors [4–7]), as well as foreign authors on the devices of cases from different countries [8–11]. The issue of assessing the impact of the quality of education on the socio-economic development of the state is currently not fully considered. The issue of education quality is considered in philosophical, pedagogical, or other dimensions [12-15].

The urgency of the issue of ensuring the quality of education in connection with the socio-economic dimension of state development is confirmed by studies [16]:

“– Ukraine has a highly educated population, but the education system should pay more attention to qualitative rather than quantitative indicators and meet the needs of evolving labor market skills;

– inequality in the education system of Ukraine begins at an early stage and limits the potential of students and the system as a whole;

“Ukraine spends a large share of public funds on education, but a large network of educational institutions and a reduction in the number of student youth make the use of these resources inefficient”.

In this respect, the message underlying the development of Standards and Guidelines for Quality Assurance in the

European Higher Education Area (ESG) [17] is important: “Higher education, research and innovation play a crucial role in supporting social cohesion, economic growth and global competitiveness. Given European societies’ desire to become more and more societies of knowledge, higher education is becoming an essential component of socio-economic and cultural development. At the same time, the growing demands for skills and competencies require higher education to respond in a new way...”.

Objectives of the article

Description of the algorithm for implementing the external evaluation of the quality of the educational program (accreditation), proposals for the work of experts during the accreditation examination, determining the factors influencing the external evaluation of the educational program’s quality on the development of the national economy.

As part of the work to describe the algorithm for implementing external evaluation of the quality of the educational program used:

- abstract-logical method;
- method of induction-deduction.

Main material of the research and its discussion

In general, the algorithm of the accreditation process by the National Agency of quality assurance in higher education can be presented in the form of a logical scheme (Figure 7, borrowed from <https://naqa.gov.ua/акредитація/>).

The “field“ (in the conditions of a pandemic – remote) accreditation examination and experts’ role at this stage deserve special attention and description.

The National Agency for Quality Assurance in Higher Education based on the Code of Honor of the Expert developed within the project “New Accreditation System as a Means of Quality Assurance and Overcoming Corruption in Higher Education in Ukraine” [18] proposed new approaches (“good practices”) in the work of the expert on the evaluation of the educational program in terms of the development of academic integrity and reflected these approaches in the report on activities in 2019 [19]:

“– the expert in his actions should be subordinated to the main goal – to encourage the improvement of the educational program, and not just to state the existence of standard blocks of educational programs or formal compliance with quantitative indicators. The model of the expert’s behavior is not the auditor or auditor but the facilitator and advisor. The expert should be guided by the assumption that the guarantor of the program is interested in its improvement and create an atmosphere in which the guarantor of the program will not hide its weaknesses or be afraid to make mistakes (“safe to fail”);

– the student-centered approach – the expert represents the National Agency or the state and stakeholders (stakeholders),

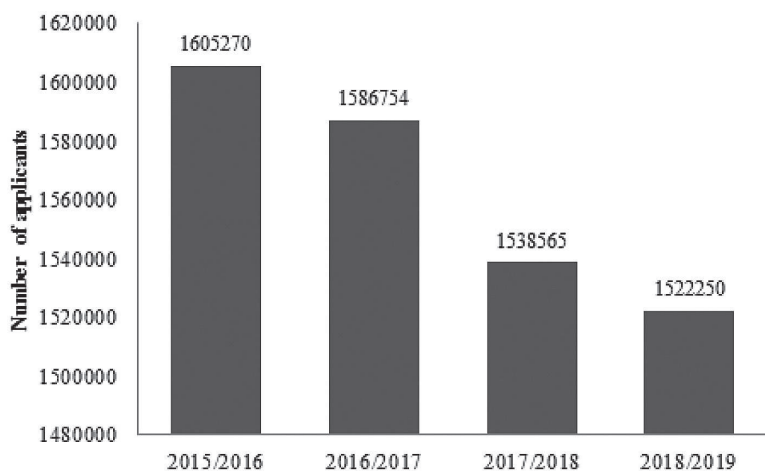


Fig. 6. Number of applicants for higher education in Ukrainian higher education institutions (according to <http://opendata.iea.gov.ua/>)

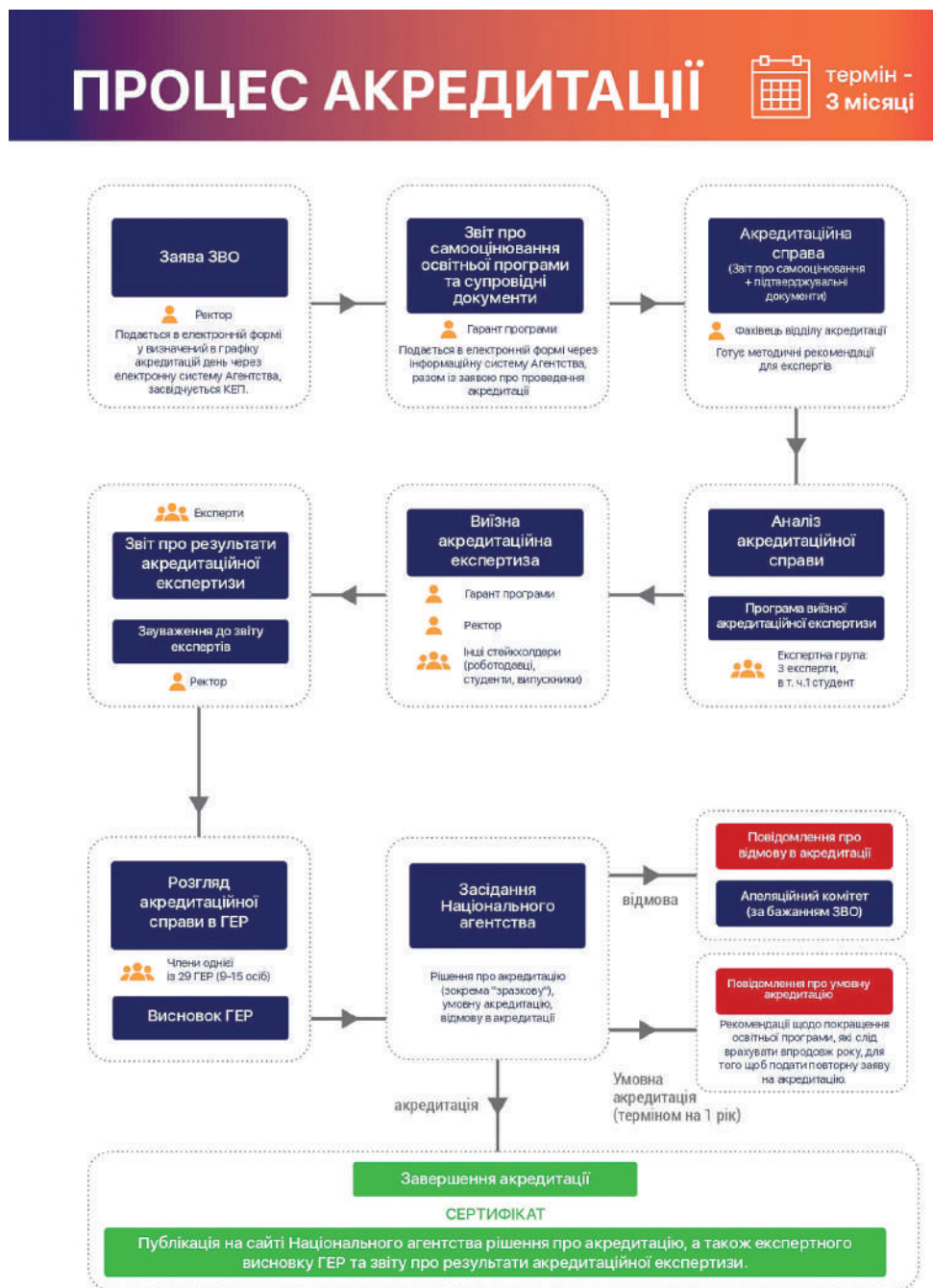


Fig. 7. Algorithm for external evaluation (accreditation) of the quality of the educational program (the language of the original is Ukrainian)

especially the student as the main “client” of the free economic zone. Therefore, the expert must learn to look at the educational program teachers from the teacher’s perspective and the student. Expert assessment should be client-oriented. The expert must forget about the guild’s solidarity and ask first what is better for the student and not what is better for the teacher. In particular, focus on modern elements of the program that improve the student’s learning experience and help students acquire not just “skills” (which are now elements of curricula: KNOW and BE ABLE), but “skills” (in the global sense – what employers need);

– “result over the process”: because the success of the program is measured primarily by the result achieved (qualified graduates, able to solve professional problems), and not only the amount of available resources (number of teachers with a degree or degree, library, etc.), one of the most difficult moments of examination is the assessment of the conformity of the invested resources to the achieved results. Perhaps the only way to assess this is to ensure that the educational program’s performance indicators (KPIs) are set in advance. The expert should be guided in the performance of similar programs (benchmarking) to make a correct assessment;

– To minimize the assessment’s subjectivity, the examination should be based on data (evidence-based), which requires a discussion of the correctness of data collection and interpretation. It is important that the data reflect the results, not just the resources of the educational program;

– at the same time, the expert must be “flexible”, i.e., take into account the peculiarities of the educational program, identify the uniqueness of its goals and objectives and evaluate it in this light;

– transparency and collegiality – to work openly, together with the guarantors of the educational program and other members of the expert commission for the result, and not to accredit “on paper”, to prevent outside influence on the examination;

– trust – the expert should not give grounds for suspicion of the influence of external factors on decision-making and should not resort to applying “double“ standards. To build trust and increase the responsibility for the examination results, the expert must officially become a mentor for some time to accompany the changes (providing advice on the implementation of changes) at the University”.

From the point of view of assessing the educational program’s socio-economic impact, the expert can apply the SMART-approach (Figure 8), which will assess the prospects of graduates in the labor market.

Specificity: the range of potential “consumers” of the results of educational services has been identified.

Measurability: until recently, the generally accepted learning outcomes “know“ and “be able” have been replaced by specific competencies (skills) as elements of capitalizing on the value of the graduate in the labor market.

Reach, ambition, aggression: position in the ranking of educational programs (graduating departments) and/or position in employers’ ranking.

Consistency, resources: all learning outcomes are agreed upon by the main employers in the region (country) and are measured by specific economic indicators (bonuses to the level of basic wages, career requirements, etc.).

Time constraints: specific (preferably economic) indicators have been identified that will allow the graduate to

obtain an appropriate level of salary in their field over a period of time after graduation.

The approach described above correlates with the recommendations of the international educational project “Achievements and regulation of the balance between educational programs and qualified frames” (ALIGN) within the European Union TEMPUS program (<https://sumdu.edu.ua/uk/international/international-grant-projects/261-543901-tempus-1-2013-1-am-tempus-jpgr.html>): “The learning outcomes of the relevant educational programs should be consistent with the national (education system, sociological characteristics, etc.), legal (provisions of the competent authorities, such as ministries, etc.) and the socio-economic environment (the needs of society and individuals concerning labor)...”

Conclusions

Thus, the main factors influencing the external evaluation of the quality of the educational program on the development of the national economy can be considered the following:

1. Compliance of the educational program with the Standards and Recommendations for Quality Assurance in the European Higher Education Area (ESG).

2. Compliance of the educational program with the requirements of higher education’s main stakeholders – employers.

3. Learning outcomes as components of the capitalization of the cost of educational services provided to potential employers.

4. Rating indicators of the educational program compared with similar in other educational institutions or rating indicators directly in the international ratings or rating indicators among employers.

Of course, these and other indicators are the subjects of detailed consideration in the study of the object-triad “higher education – quality – socio-economic impact”. This approach’s logical structure is shown in Figure 9 and is the basis for further research by the author.

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Educational program: the purpose of implementation as a means of ensuring socio-economic impact

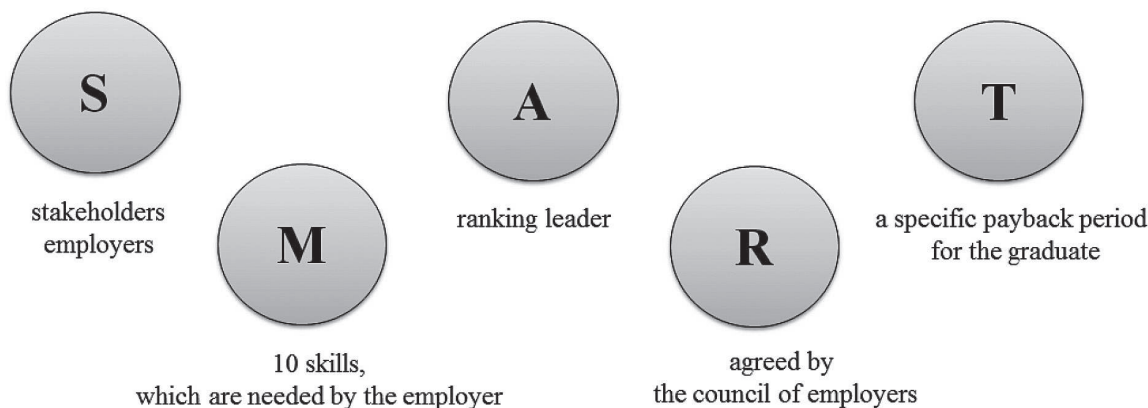


Fig. 8. SMART-approach to assess the socio-economic impact of the educational program

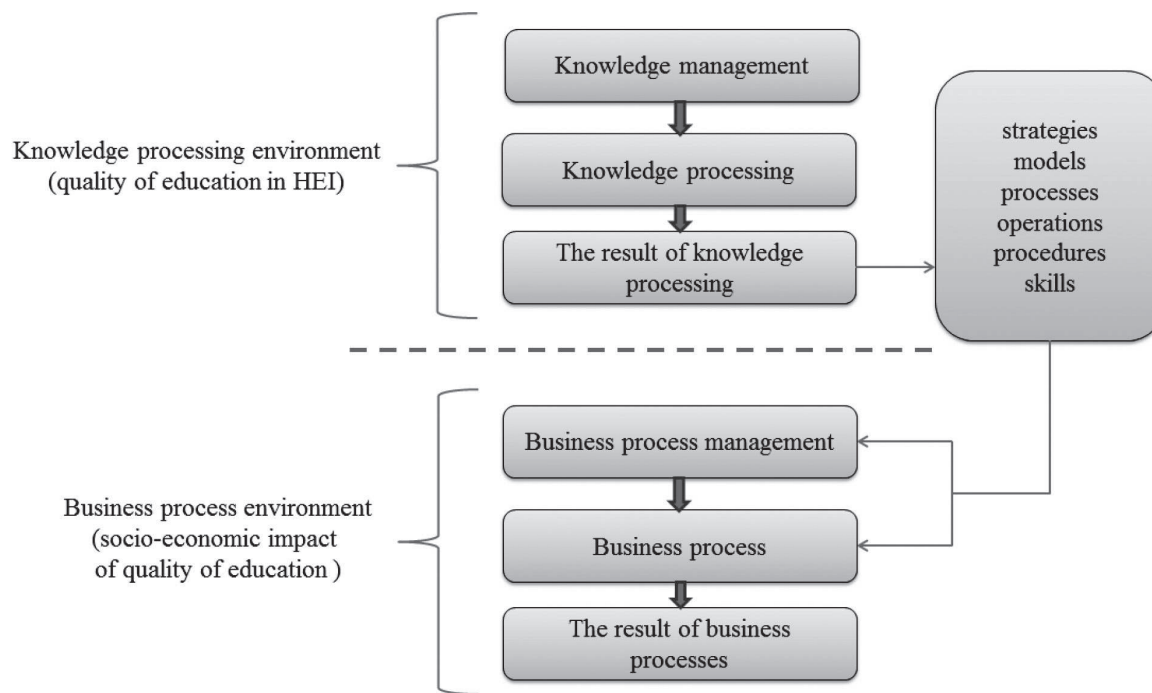


Fig. 9. From the knowledge processing environment to the business process environment

References

1. Usyk V.I., (2020) *Finansovi pravyla uriadu v rozvytku sfery natsionalnoi osvity* [Financial rules of the government in the development of national education]. Kyiv: State Higher Educational Institution Kyiv National Economic University named after Vadym Hetman, 483 pp.
2. Hrynkevych O.S., (2018) *Upravlinnia konkurentospromozhnistiu vyshchoi osvity v Ukraini: instytutsiyni analiz i monitorynh* [Management of higher education competitiveness in Ukraine: institutional analysis and monitoring]: monograph. Lviv : Ivan Franko Lviv National University. 462 pp.
3. Babin I.I. (2011) *Zabezpechennia yakosti vyshchoi osvity: yevropeiskyi, natsionalnyi ta instytutsiyni rivni* [Quality assurance in higher education: European, national and institutional levels]. *Science and education*. No 1. P. 7–13.
4. Prokopenko I.F., Melnykova O.V., (2017). *Vyshcha osvita yak chynnyk ekonomichnoho zrostantia Ukrainy: suchasnyi stan ta perspektyvy rozvytku* [Higher education as a factor of economic growth of Ukraine: current state and prospects of development]. *Collection of scientific works of H.S. Skovoroda Kharkiv National Pedagogical University. Series "Economy"*. Vol. 17. P. 5–14.
5. Zhukova V.O., (2009) *Vyshcha osvita yak chynnyk rozvytku natsionalnoi ekonomiky* [Higher education as a factor in the development of the national economy] *Scientific works of KNTU. Economic sciences*. 2009. Vol. 15. P. 275–279.
6. Tsyhaniuk D.L., Tsyruyk S.V. (2019). *Vyshcha osvita yak chynnyk sotsialno-ekonomichnoho rozvytku krainy* [Higher education as a factor in the socio-economic development of the country] *Bulletin of Sumy State University. Economics series*. No 1. P. 111–122.
7. Yanenkova I.H. (2015). *Rol osvity i nauky dlia ekonomichnoho rostu i rozvytku suspilstva* [The role of education and science for economic growth and development of society] *Economy and state*. № 7. P. 6–9.
8. Altinok N., Angrist N., Patrinos H.A. Global Data Set on Education Quality (1965–2015) / Policy Research Working Paper 8314. Education Global Practice Group. 2018. 78 p.
9. Kotaskova S. K., Procházka P., Smutka L., Maitah M., Kuzmenko E., Kopecka M., Höning V. The impact of education on economic growth: the case of India / *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*. 2018. vol. 66(1). P. 253–262.
10. Matsushita S., Siddique A., Giles M. Education and Economic Growth: A Case Study of Australia / *Economic Discussion*. 2006. Working Paper. No. 0615.
11. Abugamea G. The impact of Education on Economic Growth in Palestine: 1990-2014. / *METU Studies in Development*. 2017. vol. 44(3). P. 261-280.

12. Borysova Ye., (2003). Yakist osvity i mistse vyshchoi shkoly v suspilstvi [The quality of education and the place of higher education in society] *Alma Mater*. No 11. P. 27–33.
13. Zaichuk V.O., (2009). *Upravlinnia yakistiu osvity yak skladova derzhavnoi osvitnoi polityky* [Education quality management as a component of state educational policy] *Pedagogy and psychology*. no 1. p. 56–78.
14. Batechko N. *Yakist vyshchoi osvity v konteksti synerhii naukovykh pidkhodiv* [Quality of higher education in the context of synergy of scientific approaches] *Continuing professional education: theory and practice (series: Pedagogical sciences)*. 2017. Vol. 3–4 (52-53). P. 12–19.
15. Matiuk T.V. *Rol osvity v ekonomichnomu rozvytku suspilstva* [The role of education in economic development of society] *Economic Bulletin*. 2013. No 3. P. 21–30.
16. *Doslidzhennia sfery osvity v Ukraini. Do bilshoi rezultatyvnosti, spravedlyvosti ta efektyvnosti (REZIU MEZ)* (2019). [Research in the field of education in Ukraine. To greater efficiency, fairness and efficiency (SUMMARY)]. Review. 33 c.
17. *Standarty i rekomendatsii shchodo zabezpechennia yakosti v Yevropeiskomu prostori vyshchoi osvity (ESG)* [Standards and recommendations for quality assurance in the European Higher Education Area (ESG)]. Kyiv : LLC “CS”. 2015. 32 c.
18. Dobko T., Artiukhov A. (2019). *Kodeks chesti eksperta pid chas provedennia akredytatsiinoi ekspertyzy. Proiekt “Nova systema akredytatsii yak zasib zabezpechennia yakosti ta podolannia koruptsii u vyshchii osviti Ukraini”*. [Code of honor of the expert during the accreditation examination. Project “New accreditation system as a means of quality assurance and overcoming corruption in higher education in Ukraine“]. 4 p.
19. *Richnii zvit Natsionalnoho ahentstva iz zabezpechennia yakosti vyshchoi osvity: 2019*. [Annual report of the National Agency for Quality Assurance in Higher Education: 2019]. Kyiv. 244 p.