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CORPORATE SOCIAL RESPONSIBILITY OF EDUCATIONAL INNOVATORS IN FINANCIAL MANAGEMENT AND DIGITAL MARKETING STRATEGIES

ABSTRACT

The article examines the role of corporate social responsibility as an integral element of financial management and digital marketing strategies of educational innovators of higher education institutions in Ukraine. To assess the effectiveness of the implementation of aspects of corporate social responsibility, a comprehensive methodology was used, including system analysis, detailed financial and economic analysis, mathematical statistics, dynamic series models, and economic and mathematical modeling based on the multiplier-accelerator of P. Samuelson–D. Hicks.

Using data on budget allocations, income, and expenses of leading universities of Ukraine for 2020–2024. The stability of financial flows and the gradual growth of the share of extra-budgetary sources were established. The study of the multiplier-accelerator made it possible to quantitatively assess the multiplicative impact of investments in education on GDP and to substantiate the need to increase the investment activity of higher education institutions. In the context of digital marketing, the emphasis is placed on online communication tools, openness of information resources, and the activity of universities in the digital space, which contributes to the formation of a positive image, the involvement of applicants and stakeholders, and also increases trust in the higher education system.

The conclusions of the article emphasize that corporate social responsibility, combined with modern approaches to financial management and digital marketing, is becoming a significant factor in the long-term development of higher education. It is found that universities that develop endowment funds, fundraising, and transparent digital channels are able to respond more effectively to external challenges, ensure the quality of educational services, maintain academic standards, and contribute to economic growth. Therefore, practical recommendations are offered for medium- and long-term improvement of financial strategies of universities that combine corporate social responsibility, investment development, and innovative marketing to ensure the sustainability of education in the digital economy.

Keywords: corporate social responsibility, educational innovators, financial management, digital marketing, higher education institutions, budget allocations, economic and mathematical modeling, multiplier-accelerator, endowment funds, strategic planning

JEL Classification: I22, M14, O31, C53

INTRODUCTION

In the current conditions of global transformation of the economy, social relations, and technological progress, the role of education as one of the key factors of sustainable development of the state is becoming increasingly important. Education not only forms human capital, which is the basis of economic growth, but also serves as the basis for innovative breakthroughs, cultural progress, and social stability. At the same time, higher education institutions are increasingly actively integrating the principles of corporate social responsibility into their management strategies, since they are the institutions that form not only the professional competencies of future specialists, but also

socially responsible attitudes in the minds of the younger generation. In the context of complex challenges of our time, which include global economic crises, pandemic threats, increased geopolitical instability, and increased competition in the global market of educational services, the problem of ensuring the financial sustainability of higher education institutions is gaining particular importance. This issue is of particular relevance for Ukraine, which, being in a phase of profound socio-economic transformations, is forced to seek new approaches to managing financial flows in the educational sector. Ensuring sustainable development of the educational system requires not only maintaining state support, but also effective diversification of funding sources, attracting investments, donor funds, charitable contributions, and other alternative financial resources.

In this context, corporate social responsibility of educational institutions is not just a component of their image or a tribute to fashion. It is a comprehensive system of management decisions and practices that allows universities to function effectively in a competitive environment, build long-term mutually beneficial relationships with all stakeholders - students, teachers, employers, government agencies, local communities, and international partners. The introduction of the principles of social responsibility in management makes it possible to harmonize the economic interests of universities with the needs of society, ensuring a balance between commercial expediency and the social function of higher education.

An important aspect of the functioning of educational innovators is also their ability to implement modern financial management and digital marketing technologies. The effective use of digital technologies in financial management allows universities to quickly respond to changes in the external environment, optimize costs, increase the transparency of financial reporting, and improve the quality of financial planning and forecasting. At the same time, the active presence of higher education institutions in the digital space opens up new opportunities for promoting educational services, attracting applicants, building the image of universities in the international arena, as well as for expanding partner networks.

Research on the corporate social responsibility of educational innovators in relation to their financial strategic approaches and marketing practices is gaining particular importance in the period of global digitalization and innovative transformation of the economy. In this context, methods of economic and mathematical modeling are of particular importance, which allow, based on real financial data, to build predictive models for the development of educational institutions, assess the effectiveness of financial management, identify patterns in the dynamics of income and expenses, and form substantiated recommendations for optimizing the financial policy of higher education institutions.

One of the effective models for analyzing and forecasting the financial performance of educational institutions is the multiplier-accelerator model of P. Samuelson and J. Hicks, which allows us to study the relationship between investments in education, growth in gross domestic product, and the dynamics of added value in the educational sector. The use of this model in the study allows us to better understand the potential of education as a driver of economic growth, assess the effectiveness of attracting additional investments in the development of the educational system, and predict the results of such investments in the medium and long term. In addition, an important aspect of the study is the analysis of the actual financial performance of the leading higher education institutions of Ukraine in recent years. The study of real data allows us to obtain an objective picture of the state of financial management in universities, identify the main trends, problems, and reserves for increasing the efficiency of the use of financial resources. Analysis of the dynamics of budget allocations, income from the provision of educational services, expenses for the implementation of budget programs, as well as financial results of universities' activities, creates an analytical basis for building economic and mathematical models and developing sound management decisions.

Special attention within the framework of the study is paid to mechanisms for attracting additional financial resources, in particular, the development of the endowment fund system, the activities of fundraising departments, partnerships with business structures, and international organizations. Successful practices of attracting extrabudgetary funds demonstrate a high level of adaptability of individual higher education institutions to new financial conditions, the ability to plan strategically, and build effective communication with donors and investors. Such approaches not only strengthen the financial base of universities but also contribute to increasing their autonomy, flexibility in the implementation of educational programs, the development of scientific research, and the expansion of international cooperation.

An equally important component of the strategy for the development of educational innovators is the active use of digital marketing opportunities. In modern conditions, the digital presence of universities on the Internet, the effective operation of official websites, activity in social networks, and the use of modern electronic communication tools largely determine the success of attracting new students, the formation of a positive image of educational institutions, and strengthening the reputation of the university among employers and the academic community. Digital marketing allows universities to effectively present their achievements, scientific developments, educational programs, and innovative projects, ensuring openness and transparency of their activities for a wide range of stakeholders.

Given the above, a comprehensive study of the corporate social responsibility of educational innovators in the context of modern financial strategies and digital marketing is of particular importance. This approach allows you to integrate social, economic and technological aspects of the functioning of higher education, forming a holistic picture of the development of educational institutions in the conditions of dynamic transformations of modern society.

Thus, studying the corporate social responsibility of educational innovators in the context of financial management and digital marketing allows not only to reveal current trends in the development of higher education in Ukraine, but also to formulate practical recommendations for improving financial management mechanisms, attracting resources, increasing transparency and efficiency of educational processes in higher education institutions, taking into account their social mission and responsibility to society.

LITERATURE REVIEW

Hadj (2020) examines the impact of corporate social responsibility on innovation and competitiveness, which is directly relevant to the innovation strategies of educational institutions. Kubitskyi et al. (2024) consider modeling innovative technologies to increase global competitiveness, which is important for the financial management of educational innovators. Kyryliuk et al. (2021) focus on the agricultural sector, identifying organizational and economic drivers that can be applied to the management of educational institutions. Abdulai Mahmoud and Hinson (2012) studied the relationship between market orientation, innovation, and CSR in business, which is applicable to higher education institutions when developing their marketing strategies. González-Ramos et al. (2023) show the relationship between knowledge management, corporate social responsibility, and innovative capabilities. The study can become the basis for the development of educational innovations in the context of digitalization. Mazur et al. (2021) analyze the improvement of control in the financial management of enterprises, which is useful for the effective financial management of higher education institutions. They emphasize the need for accurate financial calculations in the strategic management of education. Zoria et al. (2022) consider investment support for innovative development, which directly relates to the financing of educational innovations. Abbas et al. (2019) analyze the impact of corporate social responsibility and social media on the sustainable development of companies, which is important for the digital marketing of higher education institutions. Khodakivska et al. (2022) investigate the economic security of innovative entrepreneurship, which is relevant for ensuring the stability of the financial management of educational innovators.

Kubitskyi et al. (2023) consider new tools for managing higher education institutions, particularly in the context of digital transformation. Kaplan and Haenlein (2016) analyze the impact of digital technologies, in particular massive open online courses, on education, which directly affects the digital marketing of educational innovators. Zhyvko et al. (2022) investigate the security of digitalization in financial management, which is relevant for the corporate social responsibility of a higher education institution. Leonidou et al. (2020) reveal the role of stakeholder engagement in innovation management.

Vasylchak et al. (2022) consider state employment regulation in the context of innovative entrepreneurship, which is relevant for the personnel policy of a higher education institution as a socially responsible employer. Heslin and Ochoa (2008) analyze the concept of strategic corporate social responsibility as part of the long-term strategy of organizations, which can be adapted to a higher education institution to form a positive image and attract funding.

Foote et al. (2010) investigate the impact of corporate social responsibility on managerial excellence, which is the basis for the financial management of educational institutions. Ovcharenko et al. (2022) investigate the functioning of eco-clusters, which can be considered as an example of sustainable development of a higher education institution. Rexhepi et al. (2013) point to the connection between corporate social responsibility and innovation as drivers of business growth. Li et al. (2024) analyze the relationship between digital innovations and the effectiveness of corporate social responsibility based on digital patents. Werther and Chandler (2005) consider corporate social responsibility as a tool for brand protection, which is important for the reputation management of a higher education institution. Herrera (2015) analyzed the creation of competitive advantages through social innovation.

Oseredchuk et al. (2022) investigated the monitoring of the quality of distance education, which is especially important for the digital marketing strategies of institutions in the online space. Voronina et al. (2022) consider the strategic management of competitive advantages in the innovation economy, which is useful for the development strategies of educational innovators. The study by Stolyarov et al. (2022) is devoted to the optimization of the material and technical support of enterprises, which is relevant for the resource management of higher education institutions. Zhang et al. (2019) analyze the barriers and motivations for the implementation of corporate social responsibility in construction companies, but similar mechanisms also operate in higher education institutions. Varadarajan et al. (2022) reveal innovations in digital marketing,

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which directly relate to the digital marketing strategy of educational institutions. Voznyuk et al. (2021) propose interdisciplinary educational technologies taking into account the functional asymmetry of the brain, which allows for the formation of innovative educational programs for higher education institutions.

Zhao et al. (2012) developed an indicator system of corporate social responsibility for construction companies, which can be adapted to educational institutions. Tsai et al. (2012) analyze the perception of employees of the corporate social responsibility system in the hotel sector, which is useful for studying the internal corporate culture of higher education institutions and provides an understanding of the influence of personnel on the implementation of social responsibility. Gryshchenko et al. (2021) studied the competitive advantages of university innovation clusters, which support the development of cooperation between higher education institutions in creating an innovative educational environment. Saeidi et al. (2015) show how social responsibility affects financial performance through reputation and customer satisfaction, which is useful for assessing the effectiveness of higher education institutions' strategies. Rondinelli and Berry (2000) examine the role of transnational companies in sustainable development, which can be used to develop international partnerships of higher education institutions in the field of social responsibility. İyigün (2015) examines the role of entrepreneurship in sustainable development through social responsibility, which provides methodological guidelines for the development of entrepreneurial initiatives in education. Constantinides (2014) analyzes the basics of marketing in social networks, which is critically important for the digital marketing of higher education institutions. Gernego's (2017) study is devoted to endowment funds for financing the innovative economy of education, which provides financial mechanisms for the implementation of the social responsibility of educational institutions. Our article uses statistical sources that provide an empirical basis for analyzing the financial condition and competitiveness of educational institutions, and allows us to assess the dynamics of the development of educational innovations. Kalinichenko (2021) provides practical tools for economic and mathematical modeling used to predict financial indicators in research.

The studies we have reviewed are mostly fragmentary in nature, focusing on individual aspects of social responsibility, innovation, or digitalization, which complicates the formation of a comprehensive model for educational innovators. A significant part of the scientific work is focused on business or manufacturing companies; therefore, the transfer of the obtained conclusions to the sphere of higher education requires additional adaptation. The specifics of educational institutions as simultaneously social, economic, and cultural agents are taken into account to a limited extent. Some studies use mainly qualitative methods, which limits the possibility of building accurate quantitative forecasting models within the framework of financial management. Further research should be aimed at the comprehensive integration of social responsibility, digital marketing, and financial management in higher education, taking into account the stakeholder approach.

AIMS AND OBJECTIVES

The purpose of the study is to investigate the features of corporate social responsibility of educational innovators in the system of financial management and digital marketing of higher education institutions of Ukraine using economic and mathematical modeling to assess financial indicators and forecast their development.

Research objectives:

1. To analyze the financial indicators of the activities of leading universities of Ukraine for 2020–2024.
2. To determine the dynamics of budget allocations and expenditures for the implementation of budget programs.
3. To assess the effectiveness of using the Samuelson and Hicks multiplier-accelerator to forecast financial indicators.
4. To investigate the practices of attracting additional financial resources through fundraising, endowment funds, and digital marketing.
5. To identify the main trends in corporate social responsibility of educational innovators and formulate recommendations for further improvement of financial management in higher education.

METHODS

The study of corporate social responsibility of educational innovators in the strategy of financial management and digital marketing requires the use of a wide range of scientific approaches, methods, tools, and information processing tools that ensure the complexity, objectivity, and reliability of the results obtained. In the process of preparing this work, an interdisciplinary approach was used that integrates the provisions of economic science, financial management, digital marketing, innovation management, education, sociology, and mathematical statistics. Given the complexity of the subject of the

study, its multidimensionality and dynamic nature, there was a need to use both traditional economic and modern quantitative methods of analysis. At the first stage of the study, an in-depth content analysis of modern scientific sources, regulatory framework, reporting, and statistical information of leading higher education institutions of Ukraine was conducted. This allowed us to determine the theoretical basis of the study, update its scientific issues, outline the conceptual apparatus, formulate the main categories, and systematize the main approaches to understanding corporate social responsibility in the context of the functioning of higher education institutions as innovators in the financial and digital spaces.

The main methodological approach of the study was a systems analysis, which provided a comprehensive consideration of the educational sector as a complex socio-economic system with numerous interrelationships, internal and external factors, a multi-level hierarchy of subjects and objects of management. The systems analysis allowed us to take into account the internal logic of the functioning of higher education institutions, their place in the national economic system, their role in ensuring sustainable development, and the formation of human capital, which is a key factor in the country's competitiveness in the context of globalization.

In the context of the study of the financial management of educational innovators, the method of financial and economic analysis was applied, which includes a detailed study of budget allocations, income from educational services, expenses for the implementation of budget programs, and indicators of the effectiveness of higher education institutions over a five-year period. An analysis of the accounting, financial, and audit reports of six leading universities of Ukraine was carried out, which allowed assessing their financial stability, dynamics of income and expenses, and the effectiveness of resource management. Special attention was paid to calculating the relationships between key financial indicators, determining absolute and relative deviations, which allowed establishing trends and patterns of financial development of higher education institutions.

The application of mathematical statistics methods allowed for a more in-depth quantitative analysis of financial indicators. In particular, the coefficients of variation, smoothness, stability, elasticity, linear correlation, determination, and correlation ratio were calculated to determine the level of stability of financing of higher education institutions, the degree of fluctuations in financial flows, qualitative characteristics of the dynamics of budget allocations and costs for the implementation of budget programs. The obtained analytical characteristics allowed for the establishment of the level of variability of financial flows, their stability, and tendencies to increase or decrease depending on the influence of internal and external factors.

A special role in the study was played by the economic and mathematical model of the multiplier-accelerator, proposed by P. Samuelson and J. Hicks, which allowed for a deep analysis and forecasting of the impact of investments in education on the growth of the country's gross domestic product. Within the framework of this model, autonomous investments in education were determined, the projected volumes of GDP produced at the expense of the educational component were calculated, and the growth rates of GDP as a result of investments in human capital were calculated. The application of this model allowed us to quantitatively substantiate the need for additional financial resources for the development of the educational sector, as well as to demonstrate the multiplicative effect of investments in education for the innovative development of the economy as a whole.

The method of dynamic series was used to build forecast models for the development of financial management of higher education institutions in the short and medium term. In particular, extrapolation of budget allocations and expenditures for the implementation of budget programs until 2026 was carried out. Absolute and relative deviations of forecast indicators were calculated, growth rates were determined, and the results obtained using the multiplier-accelerator model and the dynamic series method were compared. This allowed us to validate the models and assess the degree of their relevance.

In the process of collecting, systematizing, and processing empirical data, modern spreadsheets, spreadsheet software, and analytical platforms for statistical analysis were actively used. This ensured a high level of accuracy of calculations, efficiency in processing large amounts of information, visualization of analysis results in the form of graphs, diagrams, and analytical tables, which facilitated the interpretation of the results obtained and ensured their clarity.

Within the framework of the analysis of digital marketing of higher education institutions, the case study method was applied, which allowed us to investigate the features of the functioning of digital communication channels, the use of official websites, electronic services, and online access systems to financial and corporate information. A content analysis of official information resources of six leading higher education institutions of Ukraine was conducted, which allowed us to assess the level of digital openness, accessibility of financial information for stakeholders, fundraising practices, and the work of endowment funds.

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An important component of the study was the analysis of the practice of corporate social responsibility, which included the study of the activities of fundraising departments, charitable foundations, and endowments operating at Ukrainian universities. The areas of activity of such structures, the volume of financial resources involved, their direction for the development of educational programs, infrastructure projects, and support for talented students and young scientists were studied.

In order to ensure the objectivity of the results, the expert assessment method was applied, which involved specialists in the fields of financial management, educational economics, digital marketing, and management of higher education institutions. The results of the expert survey allowed us to detail the research issues, identify practical barriers and opportunities for the development of corporate social responsibility in the context of Ukrainian realities.

In general, the synergistic combination of system analysis, financial and economic analysis, mathematical statistics, economic and mathematical modeling, dynamic series, case studies, content analysis, expert assessments, and modern digital analytical tools ensured the comprehensiveness of the study, its high scientific validity, and practical significance.

RESULTS

At the beginning of the study, we will analyze the key indicators of the competitiveness of the state economy in the world market and the effectiveness of innovations at the state level – GDP and value added, which contribute a significant share to the educational component of GDP. The effectiveness of the educational component of GDP for the recent period is graphically presented in Figure 1.

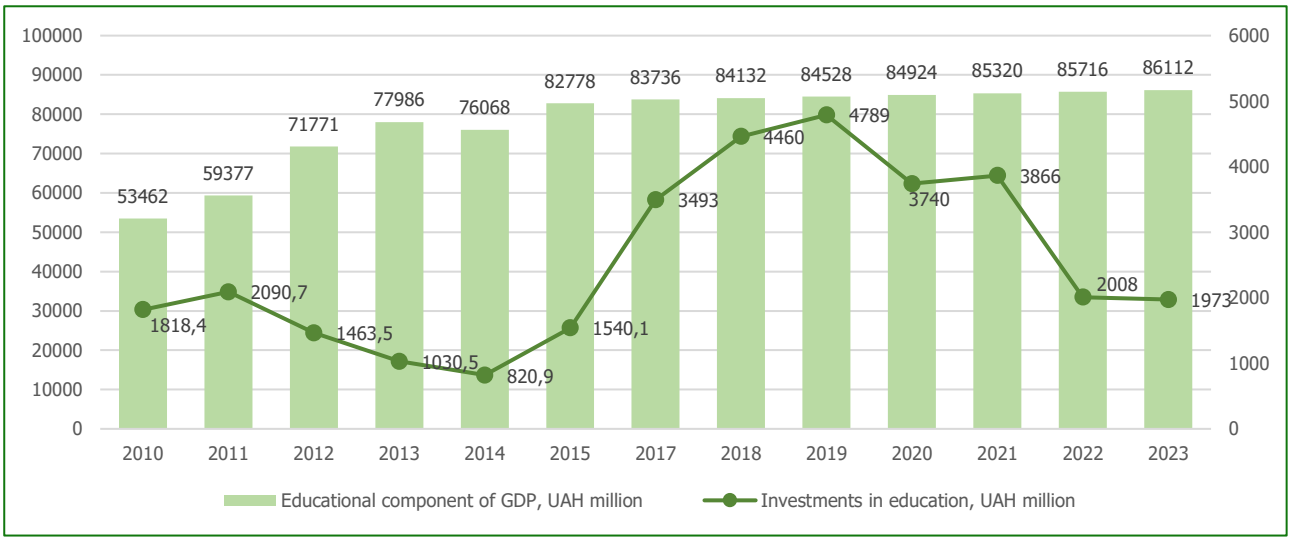

Figure 1. Performance of the education component of GDP. *(Source: based on [35-37])*

To calculate the contribution of the educational component of GDP, the forecast of the expansion of innovations due to the increase in funds for education, we adapt the multiplier-accelerator model by P. Samuelson and J. Hicks. Based on data from the State Statistics Service of Ukraine, we calculate the value of autonomous investments in education for 2023, that is, the required amount of finances that will increase innovative development in conditions of turbulent changes and an unstable external environment:

$$A2023 = Y2023 - (MPC * Y2022 + V * (Y2022 - Y2021))$$

Let us take into account that the multiplier indicator is one, and the accelerator is 0.5. A2023 will be UAH 4908.67 million, which exceeds the indicator of actual finances attracted to the educational sector of the economy. This indicates the need for a significant increase in financing and investments (Gernego, 2017; State Statistics Service of Ukraine, 2025; Statistical Yearbook of Ukraine for 2022, 2025).

In this case, the simulated value of GDP produced at the expense of education will be UAH 87886.67 million. The growth rate of the simulated value of the educational component of GDP to its actual value in 2023 is 2.06%. Graphically, the effectiveness and modeling of the educational component of GDP for the previous and subsequent periods is presented in Figure 2.

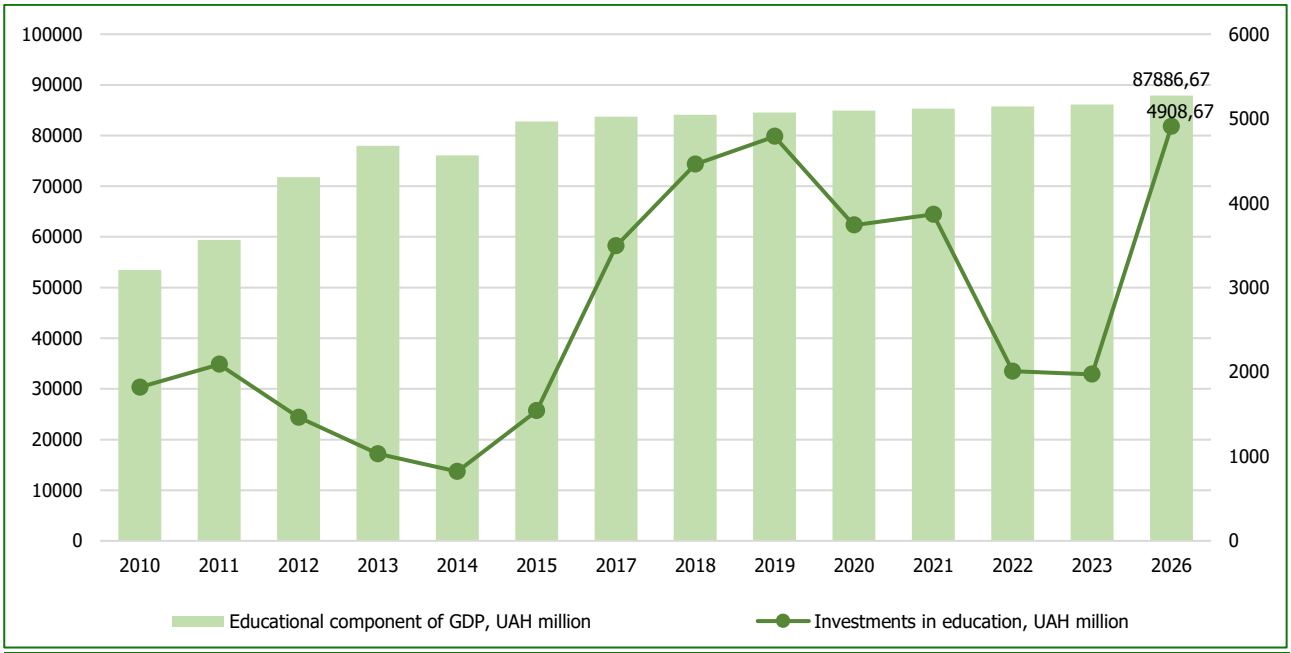

Figure 2. Performance and modeling of the education component of GDP, 2010-2023, 2026. *(Source: based on Gernego, 2017; State Statistics Service of Ukraine, 2025; Statistical Yearbook of Ukraine for 2022, 2025)*

In further research, analysis and forecasting of the activities of educational innovators in the financial management and digital marketing strategies of specific higher education institutions, we will use the multiplier-accelerator model of P. Samuelson and J. Hicks.

Let us move on to another level of research – the selection of higher education institutions that are innovators in financial management and digital marketing strategies.

According to the published ranking of the best higher education institutions in Ukraine in 2024, which makes up the Consolidated University Ranking, which covers the results of 235 higher education institutions, and also consists of ten thematic rankings, the top ten universities in Ukraine include:

1. Shevchenko National University of Kyiv.
2. Franko National University of Lviv.
3. Lviv Polytechnic National University.
4. Sikorsky Kyiv Polytechnic Institute National Technical University.
5. Kharkiv Karazin National University.
6. Fedkovych Chernivtsi National University.
7. Stefanyk Precarpathian National University.
8. Bogomolets National Medical University.
9. Kyiv-Mohyla Academy National University.
10. Mechnikov National University of Odesa [38].

We have selected six leading domestic universities, and based on their data, we will conduct a study of the corporate social responsibility of educational innovators in the strategy of financial management and digital marketing. The selected higher education institutions are leading in Ukraine, prestigious, and actively work in the digital marketing system, by using digital channels to inform, present public information from historical background to the present, from informing at different levels of universities to corporate, statistical, and financial information, which opens access to a huge audience (Table 1).

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Table 1. Corporate information posted on the websites of leading higher education institutions in Ukraine

Higher education institutions	Access to corporate information of higher education institutions
Shevchenko National University of Kyiv	https://knu.ua/ua/official
Franko National University of Lviv	https://lnu.edu.ua/about/university-today-and-tomorrow/documents/financial-information/reports/
Kharkiv National University of Karazin	https://old.karazin.ua/ua/general/structure/finances
Bogomolets National Medical University	https://mail.nmu.ua/documents-of-the-university/koshtorys/
Kyiv-Mohyla Academy National University	https://www.ukma.edu.ua/index.php/about-us/sogodennya/dokumenty-naukma/cat_view/1-dokumenty-naukma/ 12-normatyvna-baza-naukma/23-finansovo-ekonomichna-diialnist-ta-polozhennia-poriadky-pro-platni-posluhy/47-zvit-pro-nadkhodzhennia-ta-vykorystannia-koshtiv
Mechnikov National University of Odesa	https://clarity-project.info/edr/02071091/yearly-finances https://onu.edu.ua/uk/geninfo/finansovi-dokumenty

It is worth briefly describing the presented educational institutions from the point of view of educational innovators in financial management and digital marketing strategies. Thus, studying the activities of the Franko National University of Lviv, it was noted that higher education institutions have a development and fundraising department, which is a structural unit responsible for attracting resources and finances to support and develop educational projects and initiatives. The main tasks of the department include developing fundraising strategies, cooperating with potential sponsors and donors, organizing charitable events, and communicating with both University employees and the general public.

In practice, among domestic universities, endowment funds are at the Institute of International Relations of the Taras Shevchenko National University of Kyiv, which was founded in 2012 and amounts to UAH 245,288, as well as a fund organized by the University of Banking (Gernego, 2017).

The next step in the study of the chosen topic is to analyze the number of students and scientific and pedagogical staff of higher education institutions, as the main executors of social responsibility and educational innovators over the past year. Graphically, the number of students and scientific and pedagogical staff of higher education institutions over the past year is presented in Figure 3 and Figure 4.

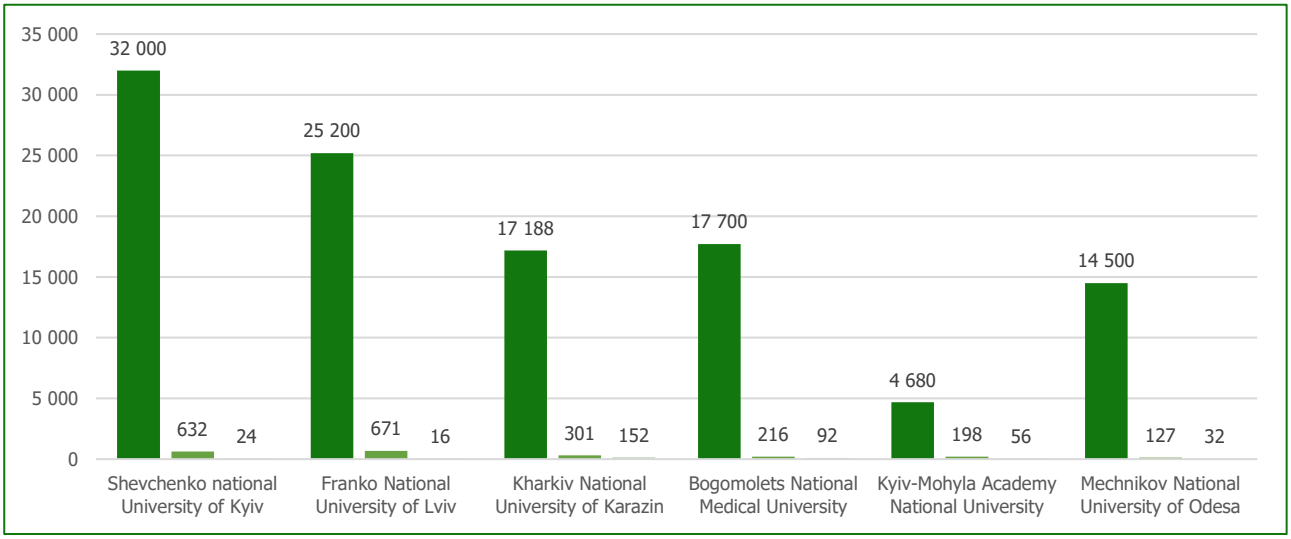

Figure 3. Number of students in higher education institutions, 2024. *(Source: based on statistical data from the studied higher education institutions)*

As we can see, the leader in terms of the number of students is Kyiv National Shevchenko University, as of January 1, 2025, the number of students is 32,000.

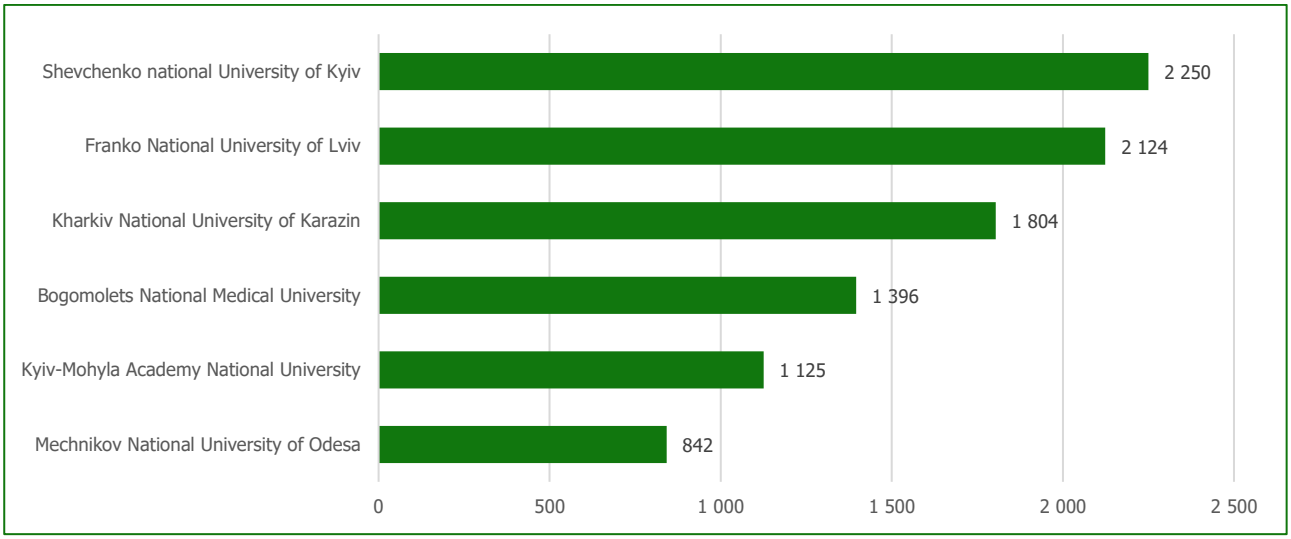

Figure 4. Number of scientific and pedagogical staff of higher education institutions, 2024. *(Source: based on statistical data of the studied higher education institutions)*

The leader in terms of the number of scientific and pedagogical staff is also Shevchenko National University of Kyiv as of 01.01.2025, their number is 2250 people.

Next in our study are financial management indicators, which are formed on the basis of accounting and financial reporting of selected higher education institutions for the last five years (Table 2).

Table 2. Financial management indicators of leading higher education institutions, 2020-2024. *(Source: calculated by the authors based on statistical data from the studied higher education institutions)*

Indicators	Shevchenko National University of Kyiv					Franko National University of Lviv				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Budget appropriations	1357430443	1748756557	2140082671	2531408785	2922734899	1289558921	1661318729	2033078537	2404838346	2776598154
Revenue from the provision of services (performance of work)	631363605	759262882	887162159	1015061436	1142960713	599795424.8	721299737.9	842804051.1	964308364.2	1085812677
Revenue from the sale of assets	384665	804655	1224645	1644635	2064625	365431.75	764422.25	1163412.75	1562403.25	1961393.75
Other income from exchange transactions	12122138	7478971	2835804	2807363	2950530	11516031.1	7105022.45	2694013.8	2666994.85	2803003.5
Other income from non-exchange transactions	22135914	16418364	10700814	104983264	10534286	21029118.3	15597445.8	10165773.3	99734100.8	10007571.7
Total income	2023436765	2532721429	3042006093	3655905483	4081245053	1922264927	2406085358	2889905788	3473110209	3877182800
Expenses for the implementation of budget programs	1368636146	1765290834	2161945522	2558600210	2955254898	1313890700	1694679201	2075467701	2456256202	2837044702
Expenses for the production of products (provision of services, performance of work)	631409457	823645965	755882473	748118981	750355489	606153078.7	790700126.4	725647174.1	718194221.8	720341269.4
Other expenses for exchange transactions	31200829	11105027	10990775	10908657	10918238	29952795.84	10660825.92	10551144	10472310.72	10481508.48
Total expenses	2031246432	2600041826	2928818770	3317627848	3716528625	1949996575	2496040153	2811666019	3184922734	3567867480
Surplus/deficit for the reporting period	-7809667	-67320397	113187323	338277635	364716428	-27731647.97	-89954795.41	78239769.15	288187474.8	309315320.3
Elements of costs under exchange operations										
Labor costs	1459408501	1931722699	2004036897	2176351095	2348665293	1401032161	1854453791	1923875421	2089297051	2254718681
Social contributions	2888 18059	387754950	396691841	385628732	409565623	277265336.6	372244752	380824167.4	370203582.7	393182998.1
Material costs	212806434	219956706	227106978	234257250	241407522	204294176.6	211158437.8	218022698.9	224886960	231751221.1
Depreciation	38866958	49500236	50133514	50766792	51400070	37312279.68	47520226.56	48128173.44	48736120.32	49344067.2
Other costs	31346480	11107235	10132010	109371255	10610500	30092620.8	10662945.6	9726729.6	104996404.8	10186080
Total	2031246432	2600041826	2688101240	2956375124	3061649008	1949996575	2496040153	2580577190	2838120119	2939183048

(continued on next page)

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Table 2. Continued.

Indicators	Karazin Kharkiv National University					Bogomolets National Medical University				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Budget appropriations	1466024878	1888657082	2204285151	2607351049	3010416946	1392723635	1794224227	2094070894	2476983496	2859896099
Revenue from the provision of services (performance of work)	681872693.4	820003912.6	913777023.8	1045513279	1177249534	647779058.7	779003716.9	868088172.6	993237615.1	1118387058
Revenue from the sale of assets	415438.2	869027.4	1261384.35	1693974.05	2126563.75	394666.29	825576.03	1198315.133	1609275.348	2020235.563
Other income from exchange transactions	13091909.04	8077288.68	2920878.12	2891583.89	3039045.9	12437313.59	7673424.246	2774834.214	2747004.696	2887093.605
Other income from non-exchange transactions	23906787.12	17731833.12	11021838.42	108132761.9	10850314.58	22711447.76	16845241.46	10470746.5	102726123.8	10307798.85
Total income	2185311706	2735339143	3133266276	3765582647	4203682405	2076046121	2598572186	2976602962	3577303515	3993498284
Expenses for the implementation of budget programs	1464440676	1853555376	2334901164	2763288227	3191675290	1405863049	1779413161	2241505117	2652756698	3064008278
Expenses for the production of products (provision of services, performance of work)	675608119	864828263.3	816353070.8	807968499.5	810383928.1	648583794.2	830235132.7	783698948	775649759.5	777968571
Other expenses for exchange transactions	33384887.03	11660278.35	11870037	11781349.56	11791697.04	32049491.55	11193867.22	11395235.52	11310095.58	11320029.16
Total expenses	2173433682	2730043917	3163124272	3583038076	4013850915	2086496335	2620842161	3036599301	3439716553	3853296878
Surplus/deficit for the reporting period	11878023.96	5295226.02	-29857995.81	182544571.7	189831489.6	-10450214.06	-22269974.45	-59996338.74	137586962.3	140201406
Elements of costs under exchange operations										
Labor costs	1503190756	1989674380	2064158004	2241641628	2419125252	1443063126	1910087405	1981591684	2151975963	2322360242
Social contributions	297482600.8	399387598.5	408592596.2	397197594	421852591.7	285583296.7	383412094.6	392248892.4	381309690.2	404978488
Material costs	219190627	226555407.2	233920187.3	241284967.5	248649747.7	210423001.9	217493190.9	224563379.8	231633568.8	238703757.8
Depreciation	40032966.74	50985243.08	51637519.42	52289795.76	52942072.1	38431648.07	48945833.36	49572018.64	50198203.93	50824389.22
Other costs	32286874.4	11440452.05	10435970.3	112652392.7	10928815	30995399.42	10982833.97	10018531.49	108146296.9	10491662.4
Total	2092183825	2678043081	2768744277	3045066378	3153498478	2008496472	2570921358	2657994506	2923263723	3027358539

Indicators	National University of Kyiv-Mohyla Academy					Odesa National University named after Mechnikov				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Budget appropriations	1583306869	2039749648	2270413706	2685571580	3100729454	1504141525	1937762166	2156893020	2551293001	2945692982
Revenue from the provision of services (performance of work)	736422508.9	885604225.6	941190334.5	1076878677	1212567020	699601383.4	841324014.3	894130817.8	1023034744	1151938669
Revenue from the sale of assets	448673.256	938549.592	1299225.881	1744793.272	2190360.663	426239.5932	891622.1124	1234264.586	1657553.608	2080842.629
Other income from exchange transactions	14139261.76	8723471.774	3008504.464	2978331.407	3130217.277	13432298.68	8287298.186	2858079.24	2829414.836	2973706.413
Other income from non-exchange transactions	25819330.09	19150379.77	11352493.57	111376744.8	11175824.02	24528363.59	18192860.78	10784868.89	105807907.5	10617032.82
Total income	2360136643	2954166275	3227264264	3878550127	4329792877	2242129811	2806457961	3065901051	3684622621	4113303233
Expenses for the implementation of budget programs	1566951524	1946233144	2521693257	2984351285	3447009313	1504273463	1868383819	2420825527	2864977234	3309128941
Expenses for the production of products (provision of services, performance of work)	722900687.3	908069676.4	881661316.5	872605979.4	875214642.4	693984659.8	871746889.4	846394863.8	837701740.3	840206056.7
Other expenses for exchange transactions	35721829.12	12243292.27	12819639.96	12723857.52	12735032.8	34292955.96	11753560.58	12306854.36	12214903.22	12225631.49
Total expenses	2325574040	2866546113	3416174213	3869681122	4334958988	2232551078	2751884269	3279527245	3714893877	4161560629
Surplus/deficit for the reporting period	34562602.7	87620161.62	-188909949.3	8869005.008	-5166111.472	9578732.164	54573692.41	-213626193.9	-30271256.46	-48257395.78
Elements of costs under exchange operations										
Labor costs	1548286479	2049364611	2126082744	2308890877	2491699009	1486355020	1967390027	2041039434	2216535242	2392031049
Social contributions	306407078.8	411369226.5	420850374.1	409113521.8	434508169.4	294150795.6	394914457.4	404016359.2	392748980.9	417127842.7
Material costs	225766345.8	233352069.4	240937793	248523516.5	256109240.1	216735692	224017986.6	231300281.2	238582575.9	245864870.5
Depreciation	41233955.74	52514800.37	53186645	53858489.63	54530334.26	39584597.51	50414208.36	51059179.2	51704150.05	52349120.89
Other costs	33255480.63	11783665.61	10749049.41	116031964.4	11256679.45	31925261.41	11312318.99	10319087.43	111390685.9	10806412.27
Total	2154949340	2758384373	2851806606	3136418369	3248103433	2068751366	2648048998	2737734341	3010961634	3118179295

Next, based on the data held on the financial management of higher education institutions, we form summary indicators of budget allocations, income from the provision of services (performance of work), expenses for the implementation of budget programs, expenses for the manufacture of products (provision of services, performance of work), total income and expenses for the last five years, Table 3.

Table 3. Summary indicators of financial management of leading higher education institutions, 2020-2024. *(Source: calculated by the authors based on statistical data from the studied higher education institutions)*

Higher education institution	Budget appropriations	Revenue from the provision of services (performance of work)	Expenditures on the implementation of budget programs	Costs for manufacturing products (providing services, performing work)	Total revenues	Total costs
Shevchenko National University of Kyiv	2140082671	887162159	2161945522	741882473	3067062965	2918852700
Franko National University of Lviv	2033078537	842804051.1	2075467701	712207174.1	2913709816	2802098592
Kharkiv National University of Karazin	2235347021	927683288.6	2321572146	795028376.1	3204636435	3132698172
Bogomolets National Medical University	2123579670	881299124.2	2228709261	763227241.1	3044404614	3007390246
Kyiv-Mohyla Academy National University	2335954251	970532553.4	2493247705	852090460.4	3349982037	3362586895
Mechnikov National University of Odesa	2219156539	922005925.7	2393517796	818006842	3182482935	3228083420

Using Table 2, the relationship between the main indicators of financial management of leading higher education institutions over the last five years and their characteristics was determined.

Table 4. Correlation between key financial management indicators of leading higher education institutions, 2020-2024. *(Source: calculated by the authors)*

Higher education institutions	Ratio of budget appropriations to expenditures for the implementation of budget programs, %	Ratio of income and expenses for the manufacture of products (provision of services, performance of works), %	Income and expense ratio, %	Deviation of the ratio of budget appropriations to expenditures for the implementation of budget programs, 2020-2024, %	Characteristic	Deviation in the ratio of income and expenses for the manufacture of products (provision of services, performance of work), %	Characteristic	Deviation of the ratio of income and expenses, %	Characteristic
Shevchenko National University of Kyiv	98.99	119.58	105.08	-1.01	reduction in budgetary appropriations.	19.58	increase in income from the provision of services (performance of work)	5.08	increase in total revenues
Franko National University of Lviv	97.96	118.34	103.98	-2.04		18.34		3.98	
Kharkiv National University of Karazin	96.29	116.69	102.30	-3.71		16.69		2.30	
Bogomolets National Medical University	95.28	115.47	101.23	-4.72		15.47		1.23	
Kyiv-Mohyla Academy National University	93.69	113.90	99.63	-6.31		13.90		-0.37	
Mechnikov National University of Odesa	92.72	112.71	98.59	-7.28		12.71		-1.41	

Further, in our study, we use the method of economic and mathematical modeling and forecasting, the method of dynamic series. So, the method of economic and mathematical research is defined, and the economic entities are also defined - higher education institutions and financial management indicators of educational innovators in the strategy. Next, we define the research, modeling, and forecasting tools. We calculate statistical indicators for further analysis and forecasting of financial management indicators of higher education institutions (Table 5).

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Table 5. Analytical characteristics of financial management indicators of higher education institutions, 2020-2024.

Analytical characteristics of budget appropriations			
Indicator	**Higher education institution**		
	Shevchenko National University of Kyiv	**Franko National University of Lviv**	**Karazin Kharkiv National University**
Coefficient of smoothing (kv)	0.46	0.46	0.49
Coefficient of variation (V)	0.26	0.26	0.24
Coefficient of stability of budget allocations	0.74	0.74	0.76
Coefficient of linear correlation	1.00	1.00	1.00
Coefficient of determination	1.00	1.00	1.00
Correlation ratio	1.00	1.00	1.00
Average elasticity coefficient	0.55	0.55	0.51
Indicator	**Bogomolets National Medical University**	**National University of Kyiv-Mohyla Academy**	**Odesa National University named after Mechnikov**
Coefficient of smoothing (kv)	0.49	0.51	0.51
Coefficient of variation (V)	0.24	0.22	0.22
Coefficient of stability of budget allocations	0.76	0.78	0.78
Coefficient of linear correlation	1.00	1.00	1.00
Coefficient of determination	1.00	0.99	0.99
Correlation ratio	1.00	1.00	1.00
Average elasticity coefficient	0.51	0.47	0.47
Analytical characteristics of costs for the implementation of budget programs			
Indicator	**Higher education institution**		
	Shevchenko National University of Kyiv	**Franko National University of Lviv**	**Karazin Kharkiv National University**
Coefficient of smoothing (kv)	0.46ц	0.46	0.46
Coefficient of variation (V)	0.26	0.26	0.27
Coefficient of stability of budget allocations	0.74	0.74	0.73
Coefficient of linear correlation	1.00	1.00	1.00
Coefficient of determination	1.00	1.00	1.00
Correlation ratio	1.00	1.00	1.00
Average elasticity coefficient	0.55	0.55	0.56
Indicator	**Bogomolets National Medical University**	**National University of Kyiv-Mohyla Academy**	**Odesa National University named after Mechnikov**
Coefficient of smoothing (kv)	0.46	0.45	0.45
Coefficient of variation (V)	0.27	0.27	0.27
Coefficient of stability of budget allocations	0.73	0.73	0.73
Coefficient of linear correlation	1.00	1.00	1.00
Coefficient of determination	1.00	1.00	1.00
Correlation ratio	1.00	1.00	1.00
Average elasticity coefficient	0.56	0.58	0.58

Analytical alignment made it possible to make a forecast and compare financial management indicators: budget allocations and expenses for the implementation of budget programs of higher education institutions over the recent period (Table 6).

Table 6. Actual and forecast indicators of financial management of higher education institutions, 2024, 2026. *(Source: calculated by the authors using reporting data from the studied higher education institutions)*

Higher education institution	Budget appropriations, UAH thousand, 2024	Budget appropriations, UAH thousand, 2026	Absolute deviation, +, -, 2026 from 2024	Relative deviation, %, 2026 from 2024
Shevchenko National University of Kyiv	2922734.90	3118397.96	195663.06	106.69
Franko National University of Lviv	2776598.15	2962478.06	185879.90	106.69
Kharkiv National University of Karazin	3010416.95	3187216.55	176799.60	105.87
Bogomolets National Medical University	2859896.10	3027855.72	167959.62	105.87
Kyiv-Mohyla Academy National University	3100729.45	3256121.03	155391.57	105.01
Mechnikov National University of Odesa	2945692.98	3093314.98	147621.99	105.01
Higher education institution	**Expenditures on the implementation of budget programs, UAH thousand, 2024**	**Expenditures on the implementation of budget programs, UAH thousand, 2026**	**Absolute deviation, +, -, 2026 from 2024**	**Relative deviation, %, 2026 from 2024**
Shevchenko National University of Kyiv	2955254.90	3034585.84	79330.94	102.68
Franko National University of Lviv	2837044.70	2913202.40	76157.70	102.68
Kharkiv National University of Karazin	3191675.29	3194848.98	3173.69	100.10
Bogomolets National Medical University	3064008.28	3087584.23	23575.95	100.77
Kyiv-Mohyla Academy National University	3447009.31	3457692.68	10683.37	100.31
Mechnikov National University of Odesa	3309128.94	3319384.97	10256.03	100.31

These tables indicate a relatively high level of stability of the financial management of leading higher education institutions of Ukraine in 2020–2024. Despite certain fluctuations in budget allocations and expenditures for the implementation of budget programs, their variation remains at an average level, which indicates the controllability of financial flows and the balance of budgetary policy in the educational sphere. High values of the coefficients of linear correlation, determination, and correlation ratio indicate the reliability of forecast models and a clear relationship between funding and expenditures of institutions. Average elasticity values demonstrate an adequate response of financial indicators to changes in external and internal factors, which allows educational innovators to effectively plan development strategies within the framework of financial management and corporate social responsibility.

We observe an increase in the optimistic scenario of financial management indicators of higher education institutions.

The following is the calculation of the ratio of budget allocations to the costs of implementing budget programs of educational innovators in the financial management strategy, as well as determining the dynamic trend of growth or decline. Graphically, the actual and forecast indicators of financial management of higher education institutions for the recent period are presented in Figures 5 and 6.

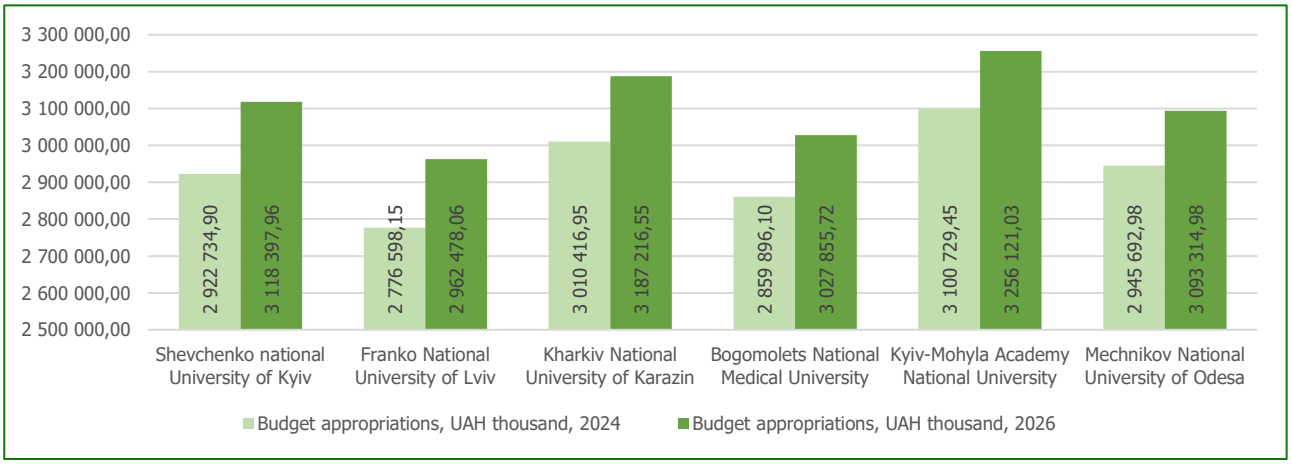

Figure 5. Actual and forecast indicators of financial management of higher education institutions, 2024, 2026. *(Source: calculated by the authors using reporting data from the studied higher education institutions)*

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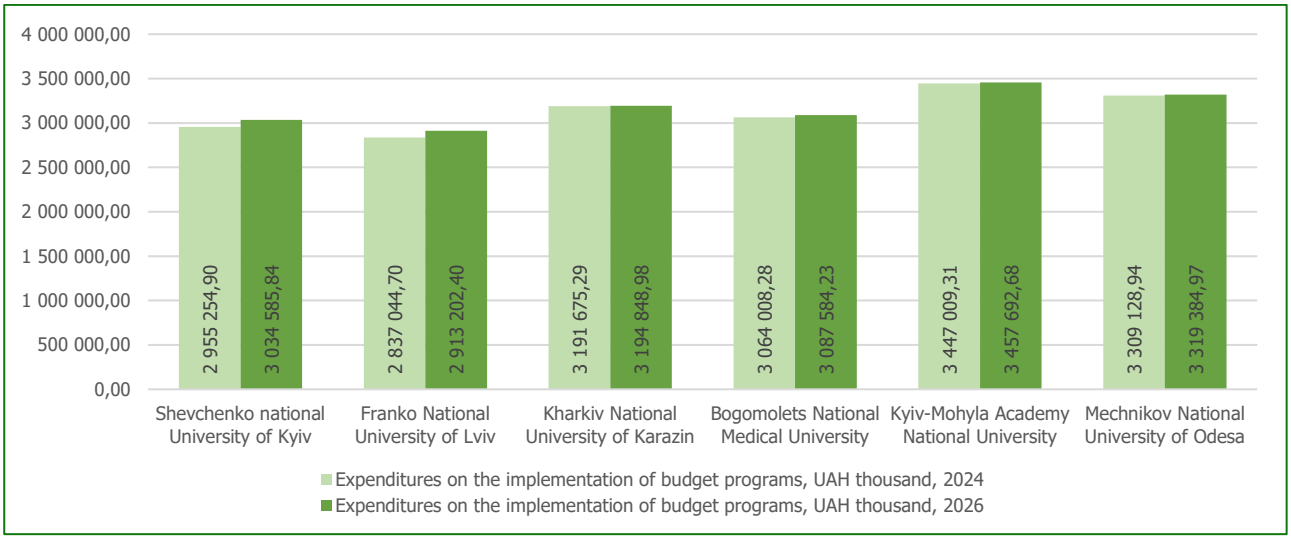

Figure 6. Actual and forecast indicators of financial management of higher education institutions, 2024, 2026. *(Source: calculated by the authors using reporting data from the studied higher education institutions)*

The ratio of budget allocations to costs for the implementation of budget programs of educational innovators in the financial management strategy for the last studied period is presented in Figure 7.

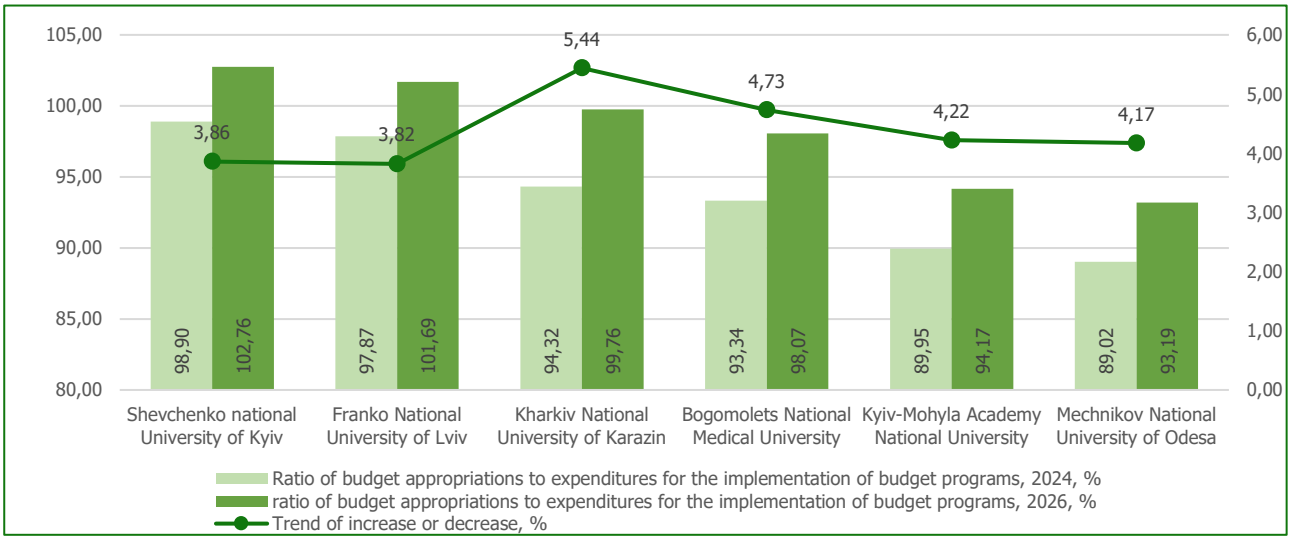

Figure 7. Ratio of budget allocations to costs for the implementation of budget programs of educational innovators in the financial management strategy, 2024, 2026. *(Source: calculated by the authors using reporting data from the studied higher education institutions)*

As previously noted, we use the multiplier-accelerator model of P. Samuelson and J. Hicks in research, analysis and forecasting the activities of educational innovators in the financial management and digital marketing strategy of selected higher education institutions.

To model financial management indicators using the multiplier-accelerator model of P. Samuelson and J. Hicks, we use a dynamic series of the value of budget allocations and expenses for the implementation of budget programs of selected higher education institutions. As a result of the calculation, simulated and forecast financial management indicators were obtained. We group them and compare them with the determined financial management indicators using dynamic series models. As we can see, the forecast financial management indicators of selected educational institutions obtained by two economic and mathematical methods differ, but this difference is not significant and not critical. And in the future, educational institutions can effectively use the economic and mathematical methods and models applied in this study, taking into account the characteristics of educational innovators and their strategies.

A graphical comparison of the forecast indicators of financial management of leading higher education institutions calculated by two economic and mathematical methods is presented in Figure 8.

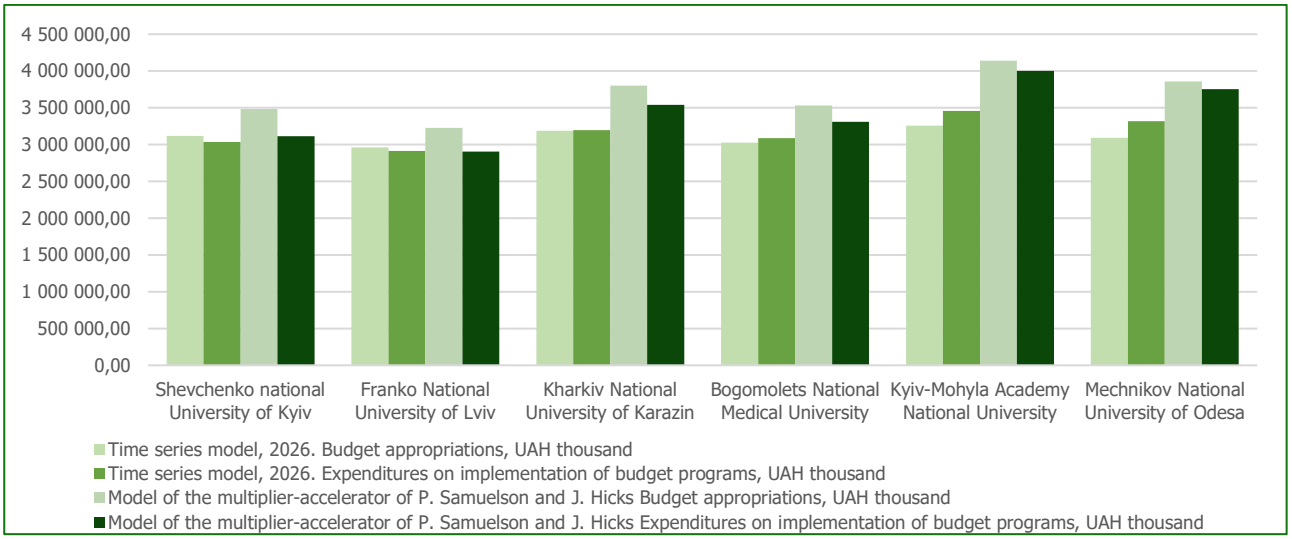

Figure 8. Graphical comparison of forecast financial management indicators of leading higher education institutions, 2026. *(Source: calculated by the authors using reporting data of the studied higher education institutions)*

Therefore, the results of the research conducted, the use of time series, and the multiplier-accelerator model of

P. Samuelson and J. Hicks, their analysis, forecasting, and data processing in modern spreadsheet applications, built-in tools and functions of a spreadsheet processor, allow for the effective implementation of a corporate social responsibility policy of educational innovators in the strategy of financial management and digital marketing.

DISCUSSION

In Hadj (2020), the author reveals the impact of corporate social responsibility on innovation and competitiveness, but the main emphasis is on the corporate sector of industrial enterprises, while there is no analysis of digital marketing as an important component of communication with stakeholders. The study by Kubitskyi et al. (2024) focuses on the impact of innovative technologies on global competitiveness through mathematical modeling, but the model does not sufficiently take into account the humanitarian and social aspects of social responsibility in higher education. It is not disclosed how educational institutions can use these models to manage social responsibility through digital channels. The publication by Mazur et al. (2021) raises the urgent problem of improving control in the financial management of enterprises, but does not take into account the specifics of budget financing and digital marketing. In the study by Abbas et al. (2019), the authors prove that combining social responsibility with social networks allows achieving sustainable financial results; however, the object of analysis is business companies. It is not sufficiently disclosed how digital marketing through social networks contributes to strengthening social responsibility in the field of education and work with various groups of stakeholders.

The work of Kaplan & Haenlein (2016) examines the transformation of education under the influence of digitalization, but the focus is only on technological tools without reference to social responsibility and the ethical component of the activities of educational institutions. There is no analysis of their impact on the image, reputation and financial sustainability of universities as elements of social responsibility.

The scientific article by Leonidou et al. (2020) has a well-developed model of stakeholder engagement in the context of innovation management, but it is not adapted to the specifics of the functioning of the higher education system. The authors do not take into account the importance of the social mission of universities and the special role of students, teachers, and society as key participants. Li et al. (2024) examine the relationship between digital innovation and CSR indicators through companies' patent activity, but such indicators are less relevant in the education sector. Higher education institutions do not capture CSR through patents, but through academic integrity, social initiatives, and financial accessibility and transparency.

Gryshchenko et al. (2021) examine the formation of educational innovation clusters, which is tangentially related to the topic, but the issues of integrating financial management, digital marketing, and CSR as a single strategy for the long-term development of universities remain unexplored.

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To address these problems, it is necessary to integrate the concept of corporate social responsibility directly into the financial management strategy of educational innovators, taking into account the social mission of education. It is worth developing special indicators for assessing the effectiveness of CSR in the education sector, which will cover academic integrity, educational accessibility, financial transparency, and stakeholder engagement. Digital marketing should be considered not only as an advertising tool, but as a platform for transparent communication, public engagement in the implementation of responsibility. In addition, it is advisable to combine economic and mathematical models with social factors in a unified system of management analysis for universities.

CONCLUSIONS

Based on the conducted research devoted to the comprehensive assessment of the corporate social responsibility of educational innovators in terms of financial management and digital marketing, a number of reasonable conclusions can be drawn that reflect both theoretical developments and applied results of the conducted analysis.

Firstly, the extreme relevance of the study of the topic of financial support for the activities of higher education institutions in the context of modern challenges of economic transformation, the development of digital technologies, increased competition in the global market of educational services, and the need to increase the efficiency of the use of budgetary resources has been confirmed. In modern conditions, it is educational innovators who act as centers for the formation of intellectual capital, the development of human resources, the transfer of new technologies, and the generation of innovative knowledge, which ensure the long-term development of the economy and the strengthening of the state's positions on the world stage.

Secondly, it has been scientifically proven that the financial sustainability and competitiveness of higher education institutions are the result of the harmonious interaction of several important components: effective financial management, active implementation of corporate social responsibility policies, intensification of fundraising activities, diversification of funding sources, integration of digital marketing tools and development of partnership with external donors, state and private funds, international organizations, business structures and civil society.

Thirdly, a comprehensive analysis of the financial indicators of the six leading higher education institutions of Ukraine for the period 2020–2024 showed a relatively stable nature of financial flows, although it also indicated the presence of certain risks associated with limited budget funding, a high level of dependence on state appropriations, an increasing burden on own sources of income and the need to intensify the search for alternative financial instruments, in particular endowments, charitable foundations, fundraising and partnership projects. It is noted that all the universities studied demonstrate a positive trend towards an increase in the share of income from the provision of educational services, commercial activities, and their own revenues, which indicates a gradual diversification of the sources of their financial stability.

Fourthly, the results of modeling financial flows of universities using the Samuelson-Hicks multiplier-accelerator and methods of economic and mathematical forecasting made it possible to substantiate the high multiplicative effect of investing in the educational sphere, which ensures GDP growth at the national level, activates the innovative activity of the economy, and contributes to the formation of powerful human capital. The obtained forecast calculations indicate that even if the existing financing trends are maintained, under an optimistic scenario, a stable growth in budget allocations and expenditures for the implementation of budget programs is possible in the near future.

Fifth, the study demonstrated the importance of introducing systematic digital marketing in the activities of universities as an effective tool for communicating with target audiences, attracting additional resources, increasing the transparency and openness of the institution's activities, and building a positive reputation and image of the university in society, in the international arena, and among potential students and partners. Digital marketing, which includes digital financial reporting, electronic open data platforms, and analytical systems for monitoring the effectiveness of resource management, plays an increasingly important role in the financial sustainability of universities. Sixth, the key role of the corporate social responsibility policy of higher education institutions, which is implemented through transparent activities in the field of finance, academic integrity, environmental sustainability, gender equality, support for the academic community, social security of students and employees, and the development of partnership with local communities, regions, business, and government agencies, was confirmed. CSR of universities is an important prerequisite for building trust in an educational institution, which in turn has a positive impact on its financial stability and resilience to external economic risks.

Seventh, the study pays special attention to the development of endowments and charitable funds at Ukrainian higher education institutions, which, although they are still underdeveloped, have significant potential for accumulating long-term

financial resources by universities through charitable contributions, targeted donations, grant programs, partnership agreements with private structures, and university graduates. The experience of leading world universities confirms the effectiveness of the development of endowments as an important source of financial autonomy, sustainable development, and increased academic freedom of educational institutions.

Eighth, the conducted economic and mathematical modeling and analytical alignment of the dynamic series of budget allocations and university expenses allowed us to determine the high quality of the research model: the correlation, determination, and stability coefficients indicate the high-quality construction of forecast estimates, which may be useful for further application in the practice of strategic planning of educational institutions.

Ninth, it is determined that it is the strategic integration of financial management tools, digital marketing and corporate social responsibility that provides universities with resilience in times of crisis, allows them to respond in a timely manner to changes in the external environment, adapt educational programs to market requirements, maintain the quality of the educational process and scientific work, and ensure social protection for employees and students.

Tenth, it is substantiated that promising areas for further improvement of the financial policy of universities in Ukraine should be:

- active attraction of additional extra-budgetary sources of financing;
- introduction of modern financial strategies for income diversification;
- development of the endowment institute;
- wider involvement of international grant programs and academic partnerships;
- deepening of the financial autonomy of universities;
- digitalization of financial monitoring and budget planning;
- creation of corporate analytics systems that allow for real-time management decisions based on comprehensive financial indicators;
- development of institutional capacity of higher education institutions for effective financial planning in conditions of uncertainty.

Thus, the results of the conducted research allow us to conclude that the effective integration of modern financial instruments, mechanisms of corporate social responsibility, and innovative opportunities of digital marketing is the key to ensuring sustainable development of the higher education system of Ukraine in the conditions of the digital economy. Universities should actively use the existing potential, form new partnership networks, and introduce modern approaches to financial management, which will allow them not only to survive in the conditions of competition but also to ensure qualitative growth, innovative development, and increase their own social role in society.

Prospects for further research lie in improving financial models that take into account the social, environmental, and digital aspects of university activities. It is advisable to conduct an in-depth analysis of the mechanisms of influence of corporate social responsibility on the financial sustainability of educational institutions in the long term. Further study also requires the development of analytical tools for monitoring the effectiveness of digital marketing in the system of attracting extrabudgetary funding. The study of the relationship between the dynamics of fundraising, the development of endowments, and the structural transformation of university financial strategies remains relevant.

ADDITIONAL INFORMATION

AUTHOR CONTRIBUTIONS

All authors have contributed equally.

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CONFLICT OF INTEREST

The Authors declare that there is no conflict of interest.

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Барна М., Білик О., Лепейко Т., Шіковець К., Лемещенко Н., Поповиченко Г.

КОРПОРАТИВНА СОЦІАЛЬНА ВІДПОВІДАЛЬНІСТЬ ОСВІТНІХ ІННОВАТОРІВ У СТРАТЕГІЇ ФІНАНСОВОГО МЕНЕДЖМЕНТУ ТА ДИДЖИТАЛ-МАРКЕТИНГУ

У статті досліджена роль корпоративної соціальної відповідальності як невід'ємного елемента стратегій фінансового менеджменту та диджитал-маркетингу освітніх інноваторів закладів вищої освіти України. Для оцінювання ефективності впровадження аспектів корпоративної соціальної відповідальності застосовано комплексну методологію, що включає системний аналіз, детальний фінансово-економічний аналіз, математичну статистику, моделі рядів динаміки та економіко-математичне моделювання на основі мультиплікатора-акселератора П. Самуельсона–Д. Хікса.

Із використанням даних показників бюджетних асигнувань, доходів і витрат провідних університетів України за 2020–2024 рр. встановлено стабільність фінансових потоків і поступове зростання частки позабюджетних джерел. Дослідження мультиплікатора-акселератора дозволило кількісно оцінити мультиплікативний вплив інвестицій в освіту на ВВП та обґрунтувати необхідність підвищення інвестиційної активності закладів вищої освіти. У контексті диджитал-маркетингу акцент зроблено на інструментах онлайн-комунікації, відкритості інформаційних ресурсів, активності університетів у цифровому просторі, що сприяє формуванню позитивного іміджу, залученню абітурієнтів і стейкхолдерів, а також підвищує довіру до системи вищої освіти.

Висновки дослідження підкреслюють, що корпоративна соціальна відповідальність у поєднанні з сучасними підходами фінансового менеджменту й цифровим маркетингом стає суттєвим фактором довгострокового розвитку вищої освіти. Виявлено, що університети, які розвивають ендаумент-фонди, фандрейзинг і прозорі цифрові канали, здатні ефективніше реагувати на зовнішні виклики, забезпечувати якість освітніх послуг, підтримувати академічні стандарти й сприяти економічному зростанню. Отже, автори пропонують практичні рекомендації щодо середньо- та довгострокового вдосконалення фінансових стратегій університетів, що поєднують корпоративну соціальну відповідальність, інвестиційний розвиток та інноваційний маркетинг для забезпечення стійкості освіти в умовах цифрової економіки.

Ключові слова: корпоративна соціальна відповідальність, освітні інноватори, фінансовий менеджмент, диджитал-маркетинг, заклади вищої освіти, бюджетні асигнування, економіко-математичне моделювання, мультиплікатор-акселератор, ендаумент-фонди, стратегічне планування

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