

INTEGRATED MODEL OF DIGITAL ADMISSION MANAGEMENT IN THE SYSTEM OF ECONOMIC PROCESSES OF THE UNIVERSITY

ІНТЕГРОВАНА МОДЕЛЬ ЦИФРОВОГО УПРАВЛІННЯ ВСТУПОМ У СИСТЕМІ ЕКОНОМІЧНИХ ПРОЦЕСІВ УНІВЕРСИТЕТУ

The article substantiates a digital model for managing the admission campaign as a tool for forming the revenue base and increasing the economic performance of the university. Its relevance is determined by competition in the educational services market, demographic constraints, and the need for stable cash inflows. The architecture of an integrated digital platform for applicant support is analyzed, and its impact on application conversion, financial cycle completion, and administrative cost optimization is assessed. The methodology is based on economic and structural-functional approaches. The results showed that the integration of digital services and financial modules increases the monetization of digital traffic, the predictability of cash flows, and provides economies of scale, which strengthens the financial sustainability of the university. The findings can be used to improve digital admission management strategies in higher education institutions.

Key words: digitalization of admission, digital platform, economic performance, university revenue base, financial sustainability, digitalization.

У статті розглянуто цифрову модель управління вступною кампанією закладу вищої освіти як інструмент формування доходної бази та підвищення економічної результативності університету в умовах цифрової трансформації освітнього середовища. Метою роботи є обґрунтування концептуальних і прикладних засад цифровізації вступу як керованого процесу створення економічної цінності з вимірюваними показниками результативності та фінансовими ефектами. Актуальність теми зумовлена посиленням конкуренції на ринку освітніх послуг, демографічними обмеженнями та необхідністю забезпечення стабільності грошових надходжень університетів в умовах обмежених ресурсів. Водночас зростає потреба у прозорих механізмах моніторингу результативності вступної кампанії та оцінюванні її впливу на фінансові показники діяльності університету. Це актуалізує необхідність формування інструментальних рішень, здатних інтегрувати адміністративні, інформаційні та фінансові процеси в єдину цифрову систему управління. У фокусі дослідження – аналіз функціональної архітектури інтегрованої цифрової платформи супроводу вступника, оцінка її впливу на конверсію заяв у зарахування, завершеність фінансового циклу та оптимізацію адміністративних витрат. Методологічно робота базується на поєднанні економічного, інституційного та структурно-функціонального підходів, що дозволило розглянути вступ як системний управлінський процес із чітко визначеними етапами та показниками ефективності. Проведений аналіз засвідчив, що інтеграція цифрових сервісів, автоматизованого моніторингу та фінансових модулів забезпечує зростання рівня монетизації цифрового трафіку, підвищення прогнозованості грошових потоків і досягнення ефекту економії на масштабі. Це, у свою чергу, створює передумови для стратегічного планування контингенту здобувачів та підвищення довгострокової фінансової стійкості університету. Практична цінність дослідження полягає у можливості використання отриманих результатів для удосконалення стратегій управління вступом, підвищення фінансової стійкості та конкурентоспроможності закладів вищої освіти.

Ключові слова: цифровізація вступу, цифрова платформа, економічна результативність, доходна база університету, фінансова стійкість, диджиталізація.

UDC 378.005.21:339.137.2

DOI: <https://doi.org/10.32782/dees.24-36>

Pokorny Natalia¹

Ph.D, Doctor of Philosophy,
Director of the Digital Department of the
European University,
Director of the "NooLab & AI" Scientific
Laboratory
of the European University,
European University

Покорни Н.С.

Європейський університет

Problem statement. In the context of intensifying competition in the educational services market, demographic challenges, and limited financial resources of higher education institutions, the issue of improving the economic performance of the admission campaign as the initial stage of forming the student body and revenue base of the university is becoming particularly relevant. Traditional administrative models of admission organization do not provide an adequate level of manageability, predictability of financial revenues, and control of expenses, which necessitates a rethinking of admission as an integrated management process with clearly defined economic parameters of efficiency.

In this context, there is a scientific problem of substantiating a conceptual and instrumental model of digital admission management capable of integrating

administrative, informational, and financial processes into a unified managed system with measurable performance indicators. This involves the formation of a model that allows for increased transparency of procedures, predictability of cash inflows, optimization of expenses, and stability of the university's revenue structure in the context of the digital transformation of the educational environment.

Analysis of recent research and publications.

The theoretical foundations of the digital transformation of economic systems and innovative development of organizations are revealed in the works of N. Verina and J. Titko [1], S. Kubiv et al. [2; 12], and O. Gassman et al. [4; 6]. The issues of artificial intelligence application, management process automation, and cybersecurity are explored by M. Kaku [3] and S. Lysenko et al. [7]. In the context

¹ ORCID: <https://orcid.org/0009-0003-5316-0809>

of the digitalization of higher education, the impact of interactive technologies, digital competence, and platform solutions has been highlighted by O. Khomenko et al. [8], H. Lan et al. [9], B. Williamson et al. [10], and G. Kortemeyer et al. [11]. At the same time, the economic performance of digital management of the admission campaign as a tool for forming the university's revenue base remains insufficiently studied, which determines the relevance of further scientific research in this direction.

Task statement. Given the intensifying competition between higher education institutions, demographic constraints, and the growing role of digital technologies in the organization of educational activities, the main objective of this study is to substantiate the economic feasibility and effectiveness of implementing an integrated digital model for managing the admission campaign. It is necessary to analyze the impact of the digitalization of admission on the conversion rate of applicants into enrolled students, the level of completion of the financial cycle, the predictability of cash inflows, and the optimization of administrative costs. The study also involves assessing the functional structure of the digital platform as a tool for forming the university's revenue base, determining its role in reducing transaction costs, and improving the manageability of the admission campaign's business processes. Particular attention is focused on analyzing the integration of analytical and financial modules into a unified performance monitoring system that ensures strategic planning of the student body and the financial sustainability of the higher education institution.

Presentation of the main research material. The relevance of finding new approaches to improving the quality of the admission campaign of higher education institutions covers a set of technological and economic aspects that can be implemented through various managerial, analytical, and digital tools to optimize the process of attracting and selecting applicants. This involves the introduction of integrated models of planning, digital support, economic forecasting, and marketing analytics, which ensure improved recruitment performance, reduced transaction costs, and the formation of a stable revenue base for the university.

Thus, the digital transformation of universities creates the preconditions for the systemic integration of administrative actions into a holistic management process, within which admission is viewed as a controlled chain of economic value creation with measurable results, costs, and financial effects [1; 2]. Accordingly, the organization of admission requires not only administrative control, but also tools for planning, coordination, and performance evaluation that are characteristic of modern models of the digital economy and innovation management [4, p. 9].

The logic of economizing admission management and the need for structured, step-by-step control

of results determine the appropriateness of using project methodology as a basic tool for formalizing and optimizing this process. The project approach to organizing the admission campaign should be interpreted as a form of management that involves defining the product, resources, life cycle, and performance indicators. In this logic, the product is the formed set of applicants as a result of the implementation of the management cycle, resources include human capital, technological infrastructure, data, and organizational competence, and the life cycle reflects the sequence of admission stages that form the value and final result [3; 5]. The assessment of a project's value is justified by economic indicators that reflect the potential future income from educational services, taking into account the costs of organizing and digitally supporting admission, while the performance evaluation is based on the ratio of planned parameters to the actual results achieved [6; 12]. It is important that, in the context of digitalization, some of these indicators can be tracked automatically using platform data and analytical modules, which enhances the manageability and transparency of management decisions [9; 11].

In turn, the marketing approach in the admission campaign system is aimed at forming demand, raising awareness among applicants, and supporting a sustainable image of the university, as well as increasing the conversion of communications into effective user actions in the digital environment. Key tools appropriate to modern conditions include informational events, digital communications on social networks, personalized consultations, and interactive mechanisms of interaction that reduce informational uncertainty and improve the quality of educational trajectory choices [8, p. 1230]. The use of interactive technologies and digital services as elements of a communication strategy affects engagement, understanding of educational offerings, and the applicant's willingness to complete the admission cycle on a digital platform [7; 10]. In addition, enhancing the digital competence of personnel who provide communication and admission support builds organizational capacity to support the service-oriented model and reduces the transaction costs of interaction.

In modern models of digital admission management, special attention is paid to personalization tools, in particular career guidance testing and recommendation mechanisms, which ensure the alignment of applicants' individual inclinations with the parameters of educational programs and facilitate the adoption of economically and academically sound decisions regarding the choice of specialty. The implementation of such functionality on digital platforms ensures the accumulation of data on user requests and behavioral patterns, which creates the basis for further analytics and adaptive communication management [4, p. 11].

The use of intelligent agents and AI assistants in the admission process increases the accessibility of the service and reduces the workload on staff, generating economic benefits through the automation of routine consultations and faster navigation of applicants through the stages of the process [6; 7]. In the broader context of the digital society, the role of artificial intelligence as a tool for transforming organizational practices is growing, which makes its application in the field of admission management relevant.

Therefore, at the present stage, the organization of admission at higher education institutions is increasingly focused on the integration of project and marketing tools that ensure the systematic, planned, and measurable results of the admission campaign in the digital environment [1; 2; 4]. It is in this logic that it is appropriate to highlight the experience of implementing an integrated model of digital admission management at the Private Higher Education Institution "European University" as a practical tool for increasing the economic performance of the admission campaign and ensuring the stability of the university's revenue base.

Thus, in the 2024/2025 admission campaign, a comprehensive digital product was introduced – a web

version and mobile application of the Euni Applicant's Account, which functions as an integrated platform for managing the entire admission cycle. Its architecture is built on a modular principle with clear business process logic, which ensures a smooth transition for applicants between stages and simultaneously forms a controlled economic monitoring framework. The overall goal of the system is to provide digital support for the admission process, centralize access to the selection of educational programs, submit and verify documents, conclude contracts, make payments, and receive enrollment decisions.

Structurally, the product covers a number of functional blocks that are integrated into a unified digital ecosystem (see Figure 1).

The first block – authentication and digital identification of the applicant (see Figure 2) – provides for account creation, unique identifier generation, and system access management.

This module minimizes the transaction costs of initial interaction, reduces the workload on the admissions committee, and creates a standardized digital profile of the applicant, which is then used in analytical calculations and forecasting of admission campaign indicators. Prospective integration with state digital identification services increases the

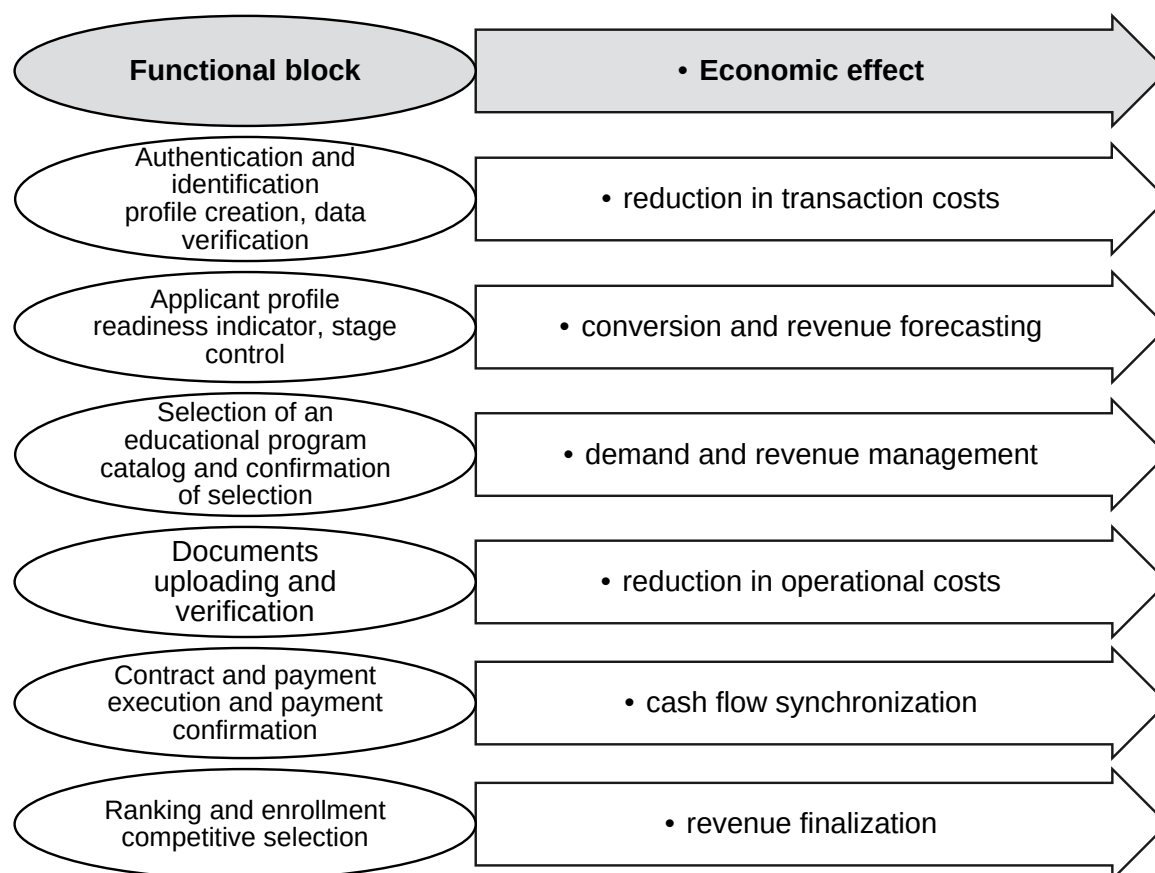


Fig. 1. Integrated digital ecosystem of admission management and its economic effect

Source: compiled by the author independently



**Fig. 2. Home page of the Applicant's Account
of the Private Higher Education Institution "European University"**

Source: compiled by the author independently

reliability of personal data, reduces the cost of verifying it, and reduces the administrative time required to process applications, which has a positive impact on the overall efficiency of managing the admission process.

The second structural block, the applicant profile, serves as the central dashboard for managing the admission process (see Figure 3).

This module displays an admission readiness indicator that aggregates information from all functional subsystems and reflects the degree of completion of procedures. This integrated indicator serves not only as a service tool for users, but also as a management indicator for the university, allowing it to forecast the conversion rate of applications into enrolments, plan staff workload, and model financial revenues. The profile synchronizes the status of the educational program selection, the status of documents, the results of entrance examinations, contracts, and payments, forming a unified digital chain of value creation of the admission campaign.

The selection of an educational program is implemented through a catalog with parameters for educational level, specialty, mode of study, and number of applications submitted, which effectively serves as an internal marketing analytics module. The display of quantitative demand indicators allows for real-time assessment of the demand structure, adjustment of information campaigns, and redistribution of marketing resources in accordance with economic feasibility. Thus, the educational program selection module is an element of the university's revenue structure management, since it

is at this stage that the future portfolio of educational contracts is formed.

The document submission and verification block provides centralized uploading, verification, and storage of document packages with display of their processing status. Manual uploading and integration with state services for document transfer are provided, which reduces the risk of errors and increases the speed of data processing. Automation of this process reduces operational costs, reduces the time spent by admissions committee staff, and minimizes repeat applications from applicants. The statuses "under review," "accepted," and "requires re-upload" form a transparent data quality management mechanism, which increases the rhythm of the admission campaign and contributes to more accurate financial planning.

The functionality of entrance examinations, contracts, and payments is integrated into the final part of the digital value chain. The contract module provides for the creation, uploading, and prospective electronic signing of documents, which transfers legally significant procedures to a digital format and reduces the costs of paper-based document management. The tuition payment module displays the amount to be paid, records the payment status, and stores the payment history, which allows synchronizing the financial flows of the admission campaign with the university's accounting systems and forecasting cash inflows.

Additional modules – ranking and enrollment, AI chat, Help Center, news, and integrations with CRM and payment services – form a complete digital admission ecosystem. They provide information

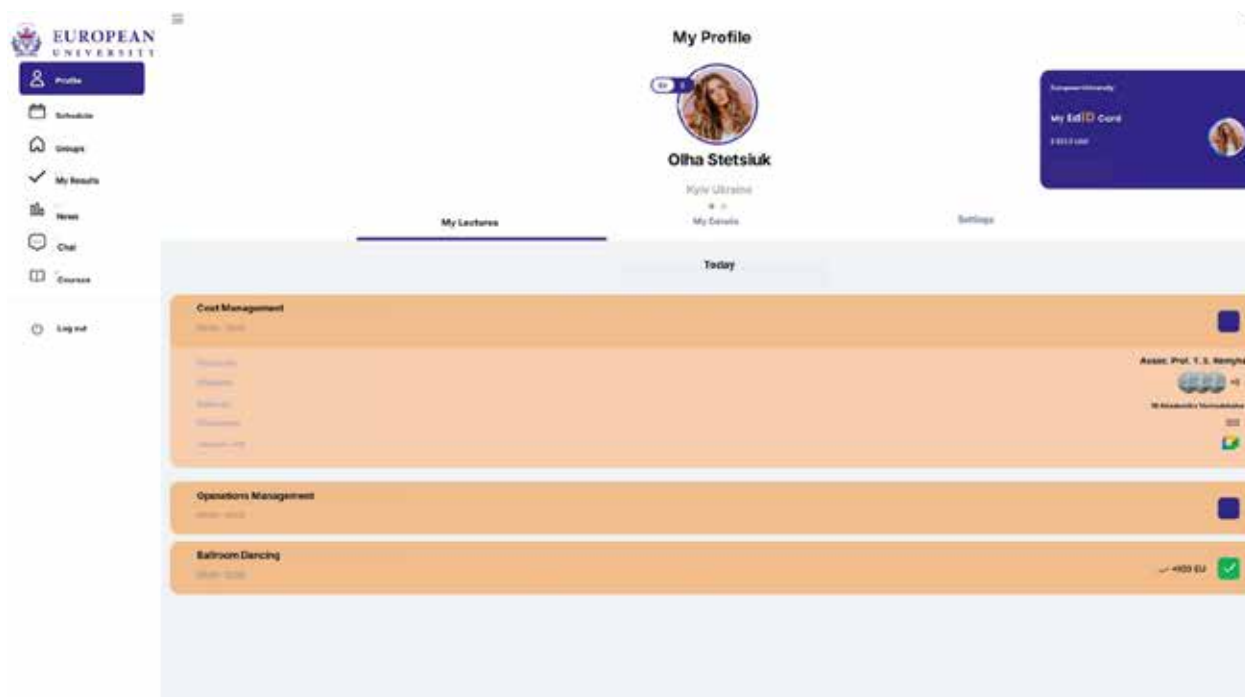


Fig. 3. Applicant profile of the Private Higher Education Institution “European University”

Source: compiled by the author independently

support, communication automation, and continuity of the applicant's transition to student status. As a result, the product functions as an integrated economic mechanism for managing demand for educational services, reducing transaction costs, increasing the conversion of applicants into enrolled students, and ensuring the predictability of the university's revenue base.

The high conversion and completion rates achieved during the 2025/2026 academic year admission campaign confirmed the feasibility of implementing an integrated digital platform to support applicants. During this period, 3,147 applicants registered, of whom 2,089 were enrolled, representing 66.4% of the total number of registrants and 87.5% of those who proceeded to the final stage of financial support. The share of contracts generated reached 97%, and confirmed payments reached 94%, which indicates a high level of completion of the financial cycle and minimization of losses at critical stages of contract conclusion and payment execution. With a stable average contract-based tuition fee, this dynamic ensures predictable cash inflows and reduces the risk of revenue shortfalls. The simultaneous processing of a large volume of applications without a proportional increase in staff numbers demonstrates economies of scale and increased productivity of administrative resources, which together enhance the university's financial sustainability.

Conclusions. The generalization of theoretical provisions and results of testing the digital admission management model allows us to conclude that

the integration of project methodology, marketing analytics, and digital tools forms a qualitatively new format of economically oriented admission campaign management. The platform's operation ensures complete control over the admission lifecycle, automated monitoring of key performance indicators, and synchronization of administrative and financial procedures. The transition to an integrated digital ecosystem allows admissions to be transformed into a managed chain of economic value creation, where each stage has measurable performance parameters and management decisions are based on real-time data.

Empirical indicators of the 2025/2026 academic year admission campaign at the Private Higher Education Institution “European University” confirm the economic performance of the implemented model. Of the 3,147 registered applicants, 2,089 were enrolled, representing 66.4% of the total number and 87.5% of those who proceeded to the final stage of financial support. The share of contracts generated reached 97%, and confirmed payments reached 94%, which indicates a high level of completion of the financial cycle and minimization of potential revenue losses at critical stages of contract conclusion and payment execution. Given the stable average contract-based tuition fee, these parameters ensure predictable generation of cash inflows, increase the monetization rate of digital traffic, and achieve economies of scale by servicing a significant volume of applications without a proportional increase in administrative costs.

REFERENCES:

1. Verina, N., & Titko, J. (2019). Digital transformation: Conceptual framework. In *Contemporary Issues in Business, Management and Economics Engineering*, pp. 719–727. DOI: <https://doi.org/10.3846/cibmee.2019.073>
2. Bobro, N. (2024). Digital technologies in the context of economic systems development. *International Journal of Economics and Business Administration*, vol. 12(2), pp.64–70. DOI: <https://doi.org/10.35808/ijeba/842>
3. Kaku, M. (2019). Robots, artificial intelligence, and the future of work. In *Environmental Health and the US Federal System: Sustainably Managing Health Hazards*, p. 254.
4. Gassmann, O., Frankenberger, K., Sauer, R., Blohm, I., & Palmié, M. (2025). Exploring the field of business innovation: New theoretical perspectives. Springer Nature. DOI: <https://doi.org/10.1007/978-3-032-03104-4>
5. Boemelburg, R., Schuhmacher, A., & Gassmann, O. (2025). The impact of open innovation practices on explorative and exploitative performance of new products. *Academy of Management Proceedings*. Valhalla, NY: Academy of Management, p. 12925. DOI: <https://doi.org/10.5465/AMPROC.2025.12925abstract>
6. Gassmann, O., & Wincent, J. (2025). The non-human enterprise: How AI agents reshape organizations. *California Management Review Insights*, October 22, 1–12.
7. Lysenko, S., Bobro, N., Korsunova, K., Vasylyshyn, O., & Tatarchenko, Y. (2024). The role of artificial intelligence in cybersecurity: Automation of protection and detection of threats. *Economic Affairs*, 69(Special Issue), pp. 43–51. DOI: <https://doi.org/10.46852/0424-2513.1.2024.6>
8. Khomenko, O. O., Paustovska, M. V., & Onyshchuk, I. A. (2024). Vplyv interaktyvnykh tekhnolohii na protses navchannia i rozvytok здобувачів вищої освіти [Impact of interactive technologies on the learning process and development of higher education students]. *Naukovi innovatsii ta peredovi tekhnolohii*, vol. 5(33), pp. 1222–1231. DOI: [https://doi.org/10.52058/2786-5274-2024-5\(33\)-1222-1231](https://doi.org/10.52058/2786-5274-2024-5(33)-1222-1231) [in Ukrainian].
9. Lan, H., Zhang, Y., & Liu, W. (2024). Assessing the digital competence of in-service university educators. *Education and Information Technologies*, vol. 29(5), pp. 11245–11263. DOI: <https://doi.org/10.1007/s10639-024-12765-2>
10. Williamson, B., Eynon, R., & Potter, J. (2020). Pandemic politics, pedagogies and practices: Digital technologies and distance education during the coronavirus emergency. *Learning, Media and Technology*, vol. 45(2), pp. 107–114. DOI: <https://doi.org/10.1080/17439884.2020.1761641>
11. Kortemeyer, G., Dittmann-Domenichini, N., & Merki, C. (2025). Attending lectures in person, hybrid or online at a technical university: How do students choose after the pandemic, and what about the outcome? *Discover Education*, vol. 4(1), p. 94. DOI: <https://doi.org/10.1007/s44217-025-00500-y>
12. Kubiv, S. I., Bobro, N. S., Lopushnyak, G. S., Lenher, Y. I., & Kozhyna, A. (2020). Innovative potential in European countries: Analytical and legal aspects. *International Journal of Economics and Business Administration*, vol. 8(2), pp. 250–264. DOI: <https://doi.org/10.35808/ijeba/457>

Дата надходження статті: 26.07.2026

Дата прийняття статті до публікації: 10.08.2026

Дата публікації статті: 28.08.2026