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Practice of Implementing Digital Educational Technologies in the Service-Oriented Admission Model

Abstract

This *study focuses* on the digital transformation of the university's admissions campaign as an institutional mechanism to improve the effectiveness of attracting and converting applicants within the service-oriented admissions model. The admission campaign is considered an integrated digital platform combining modules for identifying and selecting educational trajectories, verifying documents, concluding contracts, paying tuition fees, and making enrolment decisions. The theoretical basis is formed by modern approaches to the digital organisation of universities, platform management and user behavioural analytics. Within this framework, admissions are interpreted as a controlled, multilevel process with defined transition points and performance indicators. The *study aims* to substantiate the methodological and applied foundations of the applicant's personal electronic account as a tool for the service-oriented admission model. It also aims to analyse applicants' digital behaviour within the pilot implementation of the EUni web and mobile application during the 2025/26 academic year admissions campaign. The *methodology* is based on systemic, process-oriented, and structural-functional approaches. It is supplemented by an analysis of the conversion rates of the digital admissions funnel, as well as a logical generalisation of the results of passing through the stages of registration, submitting an application, concluding a contract, making a payment, and enrolling. Analytical and synthetic methods were employed to develop a comprehensive model for evaluating the digital performance of the admissions campaign. The *results* showed that integrating functional blocks into a unified user profile ensures high completion rates in the final stages of the digital funnel, minimises transaction losses and makes management decisions regarding the formation of the student body more predictable. The largest number of dropouts occurs in the early stages, while the contract signing and payment stages are characterised by stable conversion rates, indicating the rational digital behaviour of users and the effectiveness of the service-oriented platform architecture. The *conclusions* state that implementing the Applicant's Account's integrated digital platform ensures greater transparency, manageability and effectiveness of the admission campaign. This is achieved by optimising navigation logic, reducing transaction costs and establishing a stable digital trajectory for applicants transitioning to student status.

DOI: https://doi.org/10.30525/2500-946X/2026-1-4

Keywords

digitalisation, digital university, digital transformation, higher education, innovative activity, technological development, human capital

JEL: E24, I20, I25, N3

1 Introduction

In the digital economy, developing a competitive educational environment requires rethinking the role of the university as an institution that provides academic training and effective, service-oriented models for interacting with all stakeholders. In the context of growing competition between higher education institutions and the proliferation of platform solutions, the digital transformation of the admissions process is becoming essential for the institutional sustainability of universities. Admission campaigns are becoming increasingly integrated into digital management ecosystems, where the quality of communication, the speed of data processing and the user-friendliness of interfaces determine the level of applicant engagement and conversion.

The study focuses on analysing the transformation of the admissions campaign within the service-oriented admissions model, and on assessing the impact of the integrated digital platform on applicants' behaviour. Particular attention is paid to the role of the personal electronic account as a structured digital support tool combining modules for identification, selecting an educational trajectory, verifying documents, concluding contracts, paying tuition fees and enrolling. This approach enables the admission process to be viewed as a managed, multi-level process with

a clearly defined digital logic, rather than as a fragmented administrative procedure.

The methodological basis consists of systemic and process-oriented approaches that enable the interpretation of the admissions campaign as an integrated business process comprising defined stages, transition points and performance indicators. Analytical and comparative methods enable assessment of applicants' digital behaviour through conversion rates, stage completion levels and stability of transitions between the platform's functional blocks. This makes it possible to identify patterns of digital interaction and evaluate the effectiveness of the service-oriented admission architecture.

This work combines a conceptual substantiation of the service-oriented admissions model with an applied analysis of the results of the Applicant's Account operating as an integrated digital platform. This approach allows the digitalisation of the admissions campaign to be viewed as a mechanism that enhances the manageability, transparency and effectiveness of forming a student body at a modern university, rather than as a modernisation of administrative procedures.

2 The Transformation of the Admission Campaign within the Context of a Service-Oriented Admissions Model

In today's market, higher education institutions must ensure the quality of their programmes and develop competitive models for engaging with potential applicants. The digital transformation of universities is changing the way they are managed, shifting towards platform solutions, data-driven strategies and interaction with stakeholders that is more service-oriented (Verina & Titko, 2019; Tymoshenko & Yahodzinskyi, 2024). In this context, the admissions process becomes a user-oriented digital service rather than a purely administrative procedure.

The formation of long-term competitive advantages for universities is increasingly dependent on the implementation of innovative management and technological solutions that guarantee flexibility, customisation and transparency in interactions with applicants (Bobro, 2025a; Bobro, 2025b). As competition between educational institutions grows, the quality of the admissions process is becoming a strategic factor in institutional sustainability. Today's applicants are guided by the prospects of specialisms, expected future income levels, and university reputation, necessitating analytical support for career guidance and the adaptation of services to user behaviour patterns (Kortemeyer et al., 2025).

The digitalisation of communication and the dominance of mobile access channels are important factors in the transformation of the service-oriented admission model. The shift towards predominantly mobile usage patterns requires a rethink of the architecture of the Applicant's Account, including its interface adaptability and performance (Bouchrika, 2026). Universities that integrate digital tools into their management systems can interact more effectively with applicants and respond more quickly to changes in the external environment (Krap et al., 2024).

Using intelligent digital agents and automated services in admissions processes is consistent with the idea of creating 'non-human' organisational structures, where some management and communication functions are delegated to algorithmic systems (Gassmann & Wincent, 2025). This optimises the workload for admissions committee staff and ensures continuity of advisory support for applicants. However, the effectiveness of such solutions depends on institutional innovativeness and the digital potential of universities (Kubiv et al., 2020).

Integrating analytical tools into the admissions campaign management system helps to develop a robust strategic policy for the university, particularly with regard to the positioning of educational programmes and the forecasting of student enrolment. The service-oriented admissions model facilitates personalised access to educational and administrative services based on the user's digital identity (Bobro, 2025c). Consequently, the admissions campaign becomes an integral part of the university's comprehensive digital ecosystem, unifying management, educational, and communication processes within a single digital environment.

3 Admission Campaign as a Digital Communication Platform

A modern university's admissions campaign functions as an integrated communications platform combining marketing tools, digital interaction channels and analytical services to attract applicants. Within the service-oriented admissions model, communication with potential students evolves from fragmented information support to continuous digital support, implemented through various digital educational technologies. This approach aligns with the broader trend of digital transformation in universities, where interaction with stakeholders is facilitated through platform solutions and integrated information systems (Verina & Titko, 2019; Tymoshenko & Yahodzinskyi, 2024).

Recent studies of digital organisations emphasise that communication processes are becoming increasingly automated and supported by intelligent agents that facilitate personalised interaction with users (Gassmann & Wincent, 2025). In the context of admissions campaigns, this involves the use of chatbots, adaptive information panels, reminder systems and analytics of applicant behaviour. These

solutions increase the speed of feedback and form a new standard for managing communication flows at universities (Krap et al., 2024). Thus, the automation of communication processes and the introduction of intelligent agents into the structure of the admissions campaign necessitate the creation of a comprehensive digital platform. In line with this, the Private Higher Education Establishment "European University" launched a pilot web version and mobile application of the EUni Applicant's Account in 2025, as an integrated platform for the admissions service model.

The system functions as an integrated digital platform for admissions, combining modules for digital identification, management of the educational trajectory, verification of documents, registration for entrance examinations, conclusion of contracts, payments and receipt of admission decisions. This forms a unified digital environment for interaction between applicants and the university, in accordance with the technical specifications for the development of the Applicant's Account. The web and mobile versions operate in synchronous mode to ensure session preservation, a consistent user profile and uniform logic for transitions between stages of the admissions process. A flowchart of the EUni Applicant's Account algorithm is provided below (see Figure 1).

As Figure 1 shows, the EUni applicant's account is based on the sequential digital integration of the user into the university's educational ecosystem. The first level, interaction initiation, involves selecting an access channel (web version or mobile application), after which the user completes the registration or login procedure. The registration stage involves:

Entering personal data;

– validation in accordance with security and uniqueness requirements;
– acceptance of the privacy policy and creation of an individual applicant profile.

If authentication is successful, the system will create an active session and redirect the user to the main dashboard for the admissions process.

The second level, the applicant profile, acts as the central coordination module. It displays an integrated readiness-for-admission indicator, formed on the basis of the aggregated statuses of all functional blocks. The profile summarises information about completed and uncompleted stages and provides access to selecting educational programmes, uploading documents, registering for entrance examinations, concluding contracts, making payments and receiving admission decisions. Thus, the profile serves as a digital dashboard that facilitates transparent navigation through the stages of the admissions process.

The third and fourth levels relate to forming an educational trajectory and providing documentary support for admission. The educational programme selection module involves reviewing a catalogue of programmes, familiarising oneself with the detailed information and confirming the selected option, while taking into account parameters such as the educational level, specialty and mode of study. After that, the document submission and verification module is activated. This allows files to be uploaded from a local device or via government service integration. It also enables automatic format verification and the transfer of materials to the admissions committee for review. The system displays the status of each document – uploaded, under review, accepted or requiring resubmission – which directly affects the overall readiness indicator.

The fifth and subsequent levels of the flowchart represent the final stages of the admissions process. The entrance examinations module facilitates exam registration and provides status updates after successful completion. The contract module facilitates the creation of the appropriate type of contract, its upload, signing in paper or electronic form, and verification by the university. Once the contract has been accepted, the tuition payment module is activated. This displays the amount to be paid, records the payment status and stores the confirmation document.

The final stage is the ranking and enrolment module, which displays the competitive score, ranking position and final status (whether or not the applicant is recommended for enrolment).

A separate service block includes support tools, such as an AI chatbot, a help centre and a notification system, which provide continuous communication support to applicants until they transition to student status.

4 Analysis of Applicants' Digital Behaviour at the European University

During the 2025/26 academic year admissions campaign, the Private Higher Education Establishment "European University" implemented a pilot project called "Applicant's Personal Electronic Account" – a web and mobile application called EUni that functioned as an integrated digital platform for admissions support. To assess the effectiveness of the digital model of applicant behaviour, their progress through the five key stages of the digital funnel was analysed: profile creation, application submission, contract conclusion, tuition payment and enrolment. The summarised results are presented in Table 1.

Analysis of the data in Table 1 shows that 3,009 people initially registered in the EUni system, representing the full initial sample of digital interactions. Even at the stage of submitting the application, activity decreased to 2,488 people, corresponding to a conversion rate of 83.3%. This drop in activity is associated with the initial selection of alternatives, clarification of applicants' intentions and assessment of study conditions.

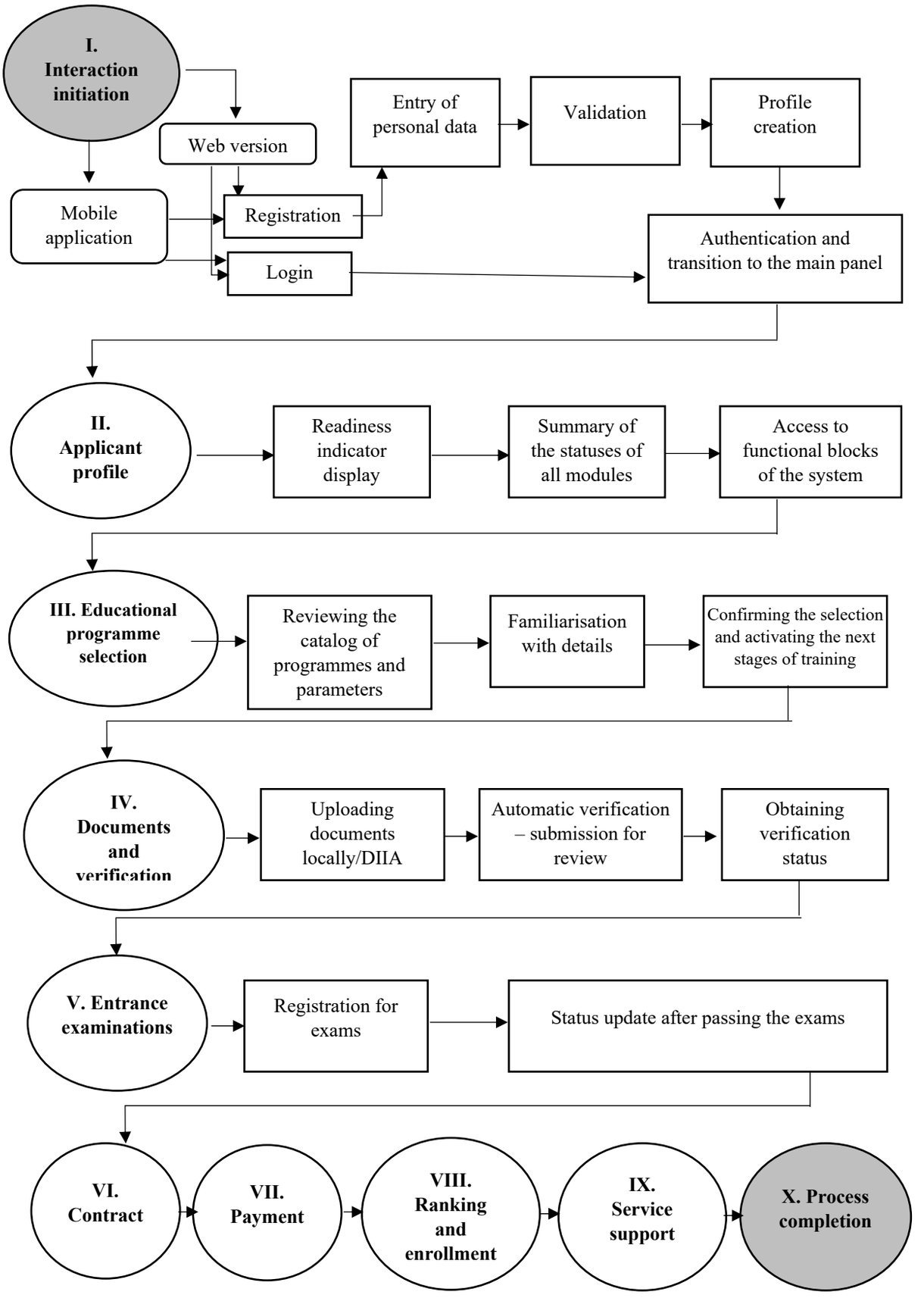

FIGURE 1. Flowchart of the EUni Applicant's Account

Source: compiled by the author independently

TABLE 1 Dynamics of the stages of the 2025/2026 academic year admission campaign in the EUni environment

Digital funnel stage	Number of applicants	Conversion to the previous stage, %	Percentage of initial amount, %
Profile creation	3,009	–	100.0
Application submission	2,488	83.3	83.3
Contract conclusion	2,291	92.0	76.7
Tuition payment	2,260	95.7	73.3
Enrollment	2,259	95.0	69.6

Source: compiled by the author independently

The next stage, concluding contracts, is characterised by increased stability of the process. 92% of applicants confirmed their intention to study and proceeded to formalise their relationship with the university. This indicates a sufficient level of trust in the digital platform and clarity of the procedural algorithm. An even higher level of completion is seen in the tuition payment stage, at 95.7%. This suggests minimal transaction barriers and the effective integration of payment mechanisms into the applicant's account structure.

The final stage, enrolment, showed that 69.6% of the initial number of registered users passed through the digital funnel. Therefore, nearly seven out of ten applicants who created a profile in the system were enrolled at the university. This is a high figure for digital, service-oriented admission models, and demonstrates the effectiveness of the EUni architecture in minimising losses throughout the process.

The results obtained allow for the interpretation of applicants' digital behaviour as a consistent model of the rational completion of formalised steps, with uncertainty gradually being reduced. The largest dropout occurs during the transition from registration to application submission, which corresponds to the preliminary selection of information. Conversely, at stages associated with making the final decision (e.g., signing a contract or making a payment), applicants demonstrate a high level of engagement.

The pilot project demonstrates that introducing the "Applicant's Personal Electronic Account" as a multi-channel digital platform ensures the structure, transparency and manageability of the admissions campaign. High conversion rates in the final stages confirm the feasibility of a service-oriented digital support model that reduces administrative burdens, increases procedural predictability, and establishes a stable digital pathway for applicants transitioning to student status.

5 Conclusions

The digital transformation of higher education institutions requires us to reconsider the admissions campaign as part of the institutional development strategy rather than just an administrative process for organising admissions. In today's market, universities must ensure the quality of their educational programmes while forming a competitive model of interaction with potential applicants. Platform solutions, data-driven approaches and service-oriented management logic are becoming defining characteristics of the new model for university operation. In this context, the admissions process is evolving into a user-oriented digital service, where speed, transparent procedures, personalisation, and ease of interaction are paramount.

The formation of long-term competitive advantages is increasingly dependent on the implementation of innovative management and technological solutions to ensure the flexibility and adaptability of the admissions infrastructure. The dominance of mobile access channels, changing applicant behaviour patterns, and growing expectations for digital services make it necessary to modernise the architecture of the Applicant's Account, improving the adaptability of its interface and integrating analytical tools. The automation of communications, the use of intelligent agents and the introduction of personalised interaction scenarios are all consistent with the development of digital organisations, where some management functions are delegated to algorithmic systems. Consequently, the admissions campaign is transformed into a digital communications platform that unifies marketing, administrative and analytical processes.

Practical testing of the EUni platform during the 2025/26 admissions campaign demonstrated its effectiveness in managing the entire admissions cycle digitally. Of the 3,009 registered users, 2,488 proceeded to the application submission stage, 2,291 to the contract conclusion stage and 2,260 made payments. Of these, 2,259 were enrolled, corresponding to a digital trajectory completion rate of 69.6% of the initial number of profiles created. The highest conversion rates were recorded in the final stages: 92.0% during the transition to contract conclusion, and 95.7% at the payment stage. This indicates the functional consistency of the contract and financial settlement modules and their algorithmic sequence, as well as the minimisation of procedural gaps between the legal formalisation of the intention to study and the financial confirmation of obligations.

Special attention should be given to the coordinating role of the profile module and the readiness

tracking system, which aggregates the statuses of the educational programme selection, document verification, entrance examinations, contracts and payments. Integrating these functional blocks within a unified dashboard reduced decision-making time and increased transparency for applicants. In practice, there was a reduction in the number of repeat applications to the admissions committee, stability in transitions between stages after the contract ended, and almost total completion of the financial stage. Thus, the EUni pilot model demonstrated that service-oriented digital architecture can ensure the manageability of an admissions campaign based on a clearly structured algorithm and quantitatively measurable results.

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Received on: 16th of March, 2025
Accepted on: 25th of April, 2026
Published on: 15th of May, 2026