DIGITAL TRANSFORMATION IN UNIVERSITY ADMISSIONS

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Abtracts

The digital transformation has become an inevitable trend, objectively impacting every aspect of social life, especially in the field of education. The digital transformation in education is identified as a breakthrough step, a critical task to meet new demands, implementing the National Digital Transformation Program by 2025, aiming towards the Government's vision for 2030. Successfully organizing digital transformation in admissions will ensure the quantity and quality of students meeting input standards, contributing to the sustainable existence and development of educational institutions. In this article, the author addresses the basic contents of digital transformation in university admissions, including communication, admissions counseling, selection, and enrollment. At the same time, it points out the opportunities and challenges of digital transformation in admissions in higher education institutions in the current context.

Keywords: Digital transformation, enrollment, higher education.

II. INTRODUCTION

Digital transformation is an inevitable and objective trend that plays a crucial role for every country. It efficiently resolves the relationships between the state, market, and society; promotes economic growth, enhances labor productivity, competitiveness, business efficiency, reduces costs for individuals, and businesses. Additionally, it helps governments at all levels enhance their management capacity, develop a digital government, digital economy, and digital society. The National Digital Transformation Program was approved under Decision No. 749/QD-TTg dated June 3, 2020, by the Prime Minister with the goal of building a digital government, digital economy, and digital society. Developing a digital government aims to improve the efficiency and effectiveness of government operations; developing a digital economy aims to enhance the competitiveness of the economy; developing a digital society aims to narrow the digital gap [1].

Digital transformation in education is identified as a breakthrough step, a key task to meet new demands, implementing the National Digital Transformation Program by 2025, oriented towards the Government's vision for 2030. To guide digital transformation in education, the Prime Minister issued Decision No. 131/QD-TTg on January 25, 2022, approving the project "Enhancing the application of information technology and digital transformation in education and training for the period 2022 – 2025, oriented towards 2030". To direct the implementation of Decision No. 131/QD-TTg of the Prime Minister, the Ministry of Education and Training issued Decision No. 1282/QD-BGDDT dated May 10, 2022, on the implementation plan to enhance the application of information technology and digital transformation in education and training for the period 2022 – 2025. Decision No. 4740/QD-BGDDT dated 06/01/2023 issued "Set of indices, criteria for evaluating the digital transformation of university education institutions" [2], [3].

Admissions activities are one of the important tasks of training activities, affecting the quantity and quality of inputs for the training process at each university. The issue of admissions has become urgent, vital to the survival of educational activities in universities. Universities today must adapt to the competition in admissions each year. Based on their own survival and development needs, universities are paying more attention to their potential customers, high school students. On the other hand, high school students also need more information about the schools they are about to choose to attend, such as: curriculum content, learning outcomes standards, employment opportunities after graduation, necessary competency qualities, extracurricular activities, internships, priority policies, workforce needs in the fields of training for them to choose from., ...

In the context of digital transformation, universities need to diversify their admission methods, including enhancing online admissions, using digital profiles, automatic admissions processing, online result announcements, and online enrollment instead of traditional methods. To achieve this, universities need to build an admissions system with the support of artificial intelligence and modern technologies to ensure the safety, security of information, data, and the intelligence of the system in connecting with those in need. Based on the above analysis, digital transformation in admissions includes the following main contents: Transformation of admissions communication methods; Transformation of enrollment methods; Transformation of technology in admissions communication, selection, and enrollment..

II. RESEARCH CONTEXT

2.1. Concepts

2.1.1. Digital conversion

There are various definitions of digital transformation, but within the scope of this article, the author mentions some relatively common concepts of digital transformation:

Microsoft defines: "Digital transformation as rethinking how organizations bring together people, data, and processes to create new value".

Digital transformation is seen as the next step of digitization, enabled by significant advancements in breakthrough technologies, especially digital technologies [4]. According to this notion, digital transformation involves:(1) Applying information technology to enhance work efficiency; (2) Digitizing information to transform it into digital form and using digital data to simplify work processes; (3) Utilizing digital products and new technologies such as AI, Big data, IoT, etc., to create new organizational operating models.

Digital transformation is a comprehensive change process for individuals and organizations in terms of lifestyle, work methods, and production methods based on digital technologies. This perspective suggests that digital transformation involves changes in: (1) Organizational models and operations; (2) Human resources; (3) Work methods, management, and operations; (4) Organizational culture; (5) Work environment; (6) Based on digital technologies.

For FSI - leading digital transformation enterprises in Vietnam: "Digital transformation is described as the process of shifting from traditional models to digital enterprises, by applying new technologies such as cloud computing, Big data, IoT, etc., to change operational methods, leadership, work processes, and corporate culture.

Digital transformation in an organization involves using digital technologies in all areas of the organization's activities, leveraging digital technologies, especially modern ones, to change operational methods, operating models, organizational culture, and service delivery methods. This perspective emphasizes that digital transformation needs to address several issues: (1) Digital transformation needs to be implemented across all areas of the organization's activities; (2) Digital transformation implementation should integrate digital technologies and modern technologies into all areas of the organization's activities; (3) Organizations need to change operational models, organizational culture, and service delivery methods.

From these perspectives, digital transformation in higher education institutions involves applying digital technologies to innovate every aspect of the organization and its activities (management, teaching, learning, scientific research, and community service). Digital transformation will help educators build new teaching methods, reducing traditional lecturing, disseminating common knowledge, and reducing the pressure of too much content within short class times. On the learners' side, they can develop self-learning and teamwork abilities; learners can study anytime, anywhere, according to their needs and abilities. Through supporting tools such as computers, laptops, smartphones, etc., connected to the Internet, learners can access a vast amount of knowledge easily, flexibly, and quickly.

Therefore, digital transformation in higher education institutions is a change from traditional organizational and operational methods to new methods based on the application of new technologies in the activities of each higher education institution, changing operational methods, leadership, work processes, teaching and learning methods, and improving the quality of the institution's work. For higher education institutions, the goal of digital transformation is to enhance management efficiency and training quality to provide society with a workforce that meets the demands of the digital age. Currently, digital transformation in higher education institutions tends to focus on two main areas: (i) Digital transformation in content and methods of education and (ii) Digital transformation in school management.

2.1.2. University Admissions

According to Nguyen Nhu Y (1999), admissions is "admitting students to schools." In the broadest sense, admissions can be understood as selecting students to study at an educational institution based on the institution's prescribed standards, following legal regulations and those of the education sector. To admit students, an educational institution must undergo a process, from providing information to students' families, introducing, promoting, and persuading, admissions counseling, to the admissions examination/selection process and organizing enrollment for students[5].

University admissions involve discovering and selecting individuals who meet the prescribed criteria for admission to universities. Admissions are the process of selecting student inputs for the training process. The quality of training at an institution is influenced by many factors, but primarily depends on the quality of admissions. A university that selects many excellent students for admission will have favorable conditions for improving the quality of education. Conversely, a university that fails to select excellent students for admission will face difficulties in enhancing the quality of education.

Higher education is a unique form of production. The product of higher education is a workforce with high intellectual levels. The value of the product is evaluated by the quality and competence of the labor force. The quality of the product is not fixed after training but continues to develop depending on the environment and the development motivation of the product. Thus, university admissions play an important role as they are a

step in the process of creating high-quality human resources to serve the development of society, serving as leverage to ensure the full and quality implementation of education development strategies in the future.

In summary, university admissions activities involve coordinating resources such as human resources, physical infrastructure, and finances of the institution to carry out the entire admissions process, from providing information to individuals and families, introducing, promoting, and persuading (marketing communication), admissions counseling, to the admissions examination/selection process and organizing enrollment for students, ensuring compliance with regulations, meeting quotas, and achieving the desired quality of the institution..

2.2. Content of digital transformation in university admission work

2.2.1. Marketing communication work in student recruitment

According to Kotler (2009), marketing communication is the transmission of information about products and businesses to customers, building brand image, thereby convincing customers to trust and purchase the company's products [6]. Marketing communication is an important factor in the marketing mix. The development of marketing communication not only changes through advertising but also involves establishing brands and driving sales volume (Amin & Priansah, 2019) [7]. It can be said that marketing communication is carried out in the business field with the basic purpose of informing the presence of products on the market, introducing the advantages of products compared to competing products to persuade consumers to buy products and remind them of the product when needed. Thus, in the admissions activities of private high schools, to select enough quantity and quality of students according to the set criteria, the school cannot neglect marketing communication activities.

The marketing communication of a university can be understood as conveying information to potential customers (families and students) about the educational program and conditions of the university, aiming to persuade them to trust and consider enrolling their children in the school.

- Objectives of marketing communication: Based on the above concept of marketing communication in the admissions activities of universities, this work aims to achieve two basic objectives: (1) Provide complete and accurate information to potential customers (individuals and families of students); (2) Attract and persuade potential customers to enroll their children or use the educational services of the university.
- Content of marketing communication: To provide information, attract, and persuade families of students to send their children to study at the school, the content of marketing communication must be researched, selected before implementation, considering the diversity of characteristics of students' families (occupations, educational levels, cultural regions, etc.). The content of marketing communication in university admissions includes: (1) Introducing the school's educational program to students' families; (2) Introducing students' families to the school's facilities, learning environment, and accompanying services; (3) Introducing families and students to extracurricular activities at the school.
- Forms of marketing communication: Kotler (2009) has provided mainly marketing communication tools. Some of these tools can be applied in the marketing communication of universities as follows:
- + *Advertising*: using various media to introduce products, goods, or services to the public for profit or non-profit purposes. The school can use mass media through television, radio, magazines, newspapers, or modern online media (school website, YouTube, Facebook, etc.).
- + Tuition fee incentives: can be considered as a form of sales promotion in the business field, "a set of measures that can make customers buy immediately, buy more, increase sales immediately by creating tangible or intangible benefits for buyers." The school can use various forms of incentives, such as discount vouchers, free trial classes, discounts when paying tuition fees by quarter or year, etc.
- + *Direct marketing*: is a method of using communication media for organizations to communicate directly with target customers to generate customer responses or transactions at any location. The school can market through catalogs (information about the school's history, messages from the principal, vision, mission, and objectives of the school, about the educational program, accompanying services, achievements of the school, etc.), through direct mail, email sent to a large number of customers whose contact information is stored in an electronic database..
- + Public relations: "is a planned and sustained effort to establish and maintain mutual understanding and knowledge between an organization and the public, including all planned communication forms, both inside and outside the organization, between an organization and its public to achieve specific goals related to mutual understanding" [8]. Public relations aim to build good relationships between a business and the community and various public groups by providing positive information through mass media, creating a favorable image for the business. Thus, universities also need to conduct public relations with the goal of establishing and maintaining a positive impression of the school among potential customers (students' families) and building a good image of the school in the eyes of students' families. Forms of public relations can include newsletters, charitable activities, press conferences to introduce admissions content, providing information for the media to report on training program content or school introductions, organizing events, participating in community service activities such as: contributing to social funds, helping those in need, sponsoring social, cultural, and sports activities....
- Human resources: This refers to the team of employees who directly interact with students' families and those who indirectly support marketing communications. This workforce typically includes: (1) Marketing communications department: This department is directly involved in implementing marketing communication

activities, playing a key role in strategic planning, dissemination, and detailed execution of content for relevant departments. It is primarily responsible for targets related to the number of interested customers and the number of customers expressing interest in enrollment. (2) Specialized departments: These departments provide support in marketing communications activities, specifically in organizing experiences for parents and students to participate in outstanding educational activities of the school, creating impressions and attractions regarding the program for potential customers. (3). Administrative office departments (administration, accounting, IT, security, etc.): Although less visible in admissions activities, these departments play an important role in supporting marketing communication events. With this department's support, events such as orientation, introductions, and customer consultations can run smoothly, professionally, and effectively.

- Infrastructure conditions: The university needs to equip itself with adequate infrastructure to provide the marketing communication team with the necessary tools and conditions to attract target customers. This typically includes: (1) For online marketing communication activities: This requires machinery, equipment, laptops, investment in advertising accounts, and tools to create images, content, and convey enrollment messages to attract and obtain information from potential customers.(2) For offline marketing communication activities: Printed materials (brochures, flyers, etc.), banners, signs, gifts, booths, etc. These materials serve to attract, reach, and flexibly provide customer advice anytime, anywhere.
 - Financial conditions: Determining the budget for marketing communication activities is crucial in planning these activities. Once the budget for these activities is determined, the school can estimate and allocate the budget for each stage of the activity. This allows for proactive planning and balancing of steps in the marketing communication planning process..

- 2.2.2. Admissions consulting work

According to Bui Thi Xuan Mai (2003), "consultation can be seen as the process of seeking advice or exchanging viewpoints on a particular issue to come to a decision." [9]. In general terms, "consultation" involves explaining, addressing concerns, and providing advice to individuals seeking consultation to help them make decisions. Therefore, university admissions activities cannot overlook admissions counseling, which involves explaining, addressing all concerns of families and students seeking advice so that they can make informed decisions about enrolling.

The objectives of admissions counseling: Based on the above concept of admissions counseling, two basic objectives of this activity in private secondary schools can be identified, including: (1) Helping students' families understand the school's curriculum(2) Assisting students' families in choosing a curriculum that is suitable for their financial situation, academic abilities, and personal goals.

The content of admissions counseling typically includes fundamental advice for students' families, such as: (1). Advising on curriculum selection (matching the needs and financial conditions of the family). (2) Advising on choosing accompanying services offered by the school (matching the needs and financial conditions of the family) (3). Advising on selecting extracurricular activities (matching the needs and financial conditions of the family).

Each university will have a strategic plan focusing on specific target customer profiles, based on the alignment between the school's responsiveness and the needs and financial capabilities of families. Counseling content regarding curriculum selection helps students' families accurately assess suitability and long-term learning orientation at the school, thereby making enrollment decisions. Extracurricular activities and accompanying services within the school contribute to competitive advantages, increasing the appeal from the enrollment target audience, especially in the current phase where learning occurs through experiential activities and self-study activities, making this content more crucial for families and students.

Forms of admissions counseling typically include basic methods such as: (1) Organizing events, seminars, or admissions forums. (2) Counseling via telephone.(3). Organizing school visits for students' families. (4). Organizing admissions counseling fairs (in collaboration with media and communication units). Among these, two important forms are "counseling via telephone," which involves one-on-one interaction with students' families, helping to understand their needs, desires, and creating initial positive impressions with target customers. "Organizing school visits for students' families" is a form that can create many positive impressions and garner the interest of students' families, helping them have practical experiences about the future learning environment of their children, thereby expediting the successful enrollment process..

Resources for conducting admissions counseling: To implement the aforementioned content and forms of admissions counseling, the school needs to meet the resources required for implementation, specifically including:

- Admissions counseling department: This department directly implements admissions counseling and is closely connected and indispensable to the marketing communications department mentioned above. The admissions counseling department will engage with customers, information, and persuade potential customer files brought in by the marketing communications department.
- Administrative office departments (administration, accounting, IT, security, etc.): These departments support admissions counseling (similarly to how they support the marketing communications department analyzed above), assisting in organizing events, seminars, roundtable discussions related to admissions counseling.
 - Infrastructure: Facilities such as rooms, vehicles, equipment, etc., also need to be adequately equipped to meet

the requirements of admissions counseling.

- Financial conditions: Admissions counseling activities also need to be based on this condition to plan and implement suitable deployment.

Having these resources in place ensures the effectiveness and efficiency of the admissions counseling process, facilitating the school in providing comprehensive support and guidance to prospective students and their families during the enrollment process..

2.2.3. Recruitment, entrance examination and admission

Admissions activities cannot be complete without admission assessments/examinations and enrollment. Private secondary schools typically conduct admissions assessments (based on applications and according to each school's regulations), entrance examinations (tests, interviews, etc.) to determine students' competency levels - mainly to facilitate appropriate class assignments and faculty allocation; and organize enrollment for students (accepting applications, tuition fees, etc.).

The goals of admissions assessments, entrance examinations, and enrollment: Annually, based on the school's training capacity, the number of classes, faculty, and staff, and the ability to meet educational programs and services, the school will set appropriate admission assessment, entrance examination, and enrollment goals. The basic goals of these activities include: (1) To enroll the expected number of students: Setting minimum and maximum target numbers based on projected revenue needs for the school to operate in the new academic year (2). To enroll students with the expected quality of inputs: Assessing students' academic abilities and their families' long-term financial capabilities.

Content of admissions assessments, entrance examinations, and enrollment: For private secondary schools with multiple levels, they must ensure they cover all levels of education they provide. If the school offers all three levels of education, the content of these activities includes: Admissions assessments, entrance examinations, and enrollment for primary education. Admissions assessments, entrance examinations, and enrollment for lower secondary education. Admissions assessments, entrance examinations, and enrollment for upper secondary education.

Forms of admissions assessments, entrance examinations, and enrollment: As mentioned above, universities typically conduct admissions assessments based on applications according to the school's regulations, complying with legal requirements and education sector regulations. Entrance examinations may include tests, interviews, etc. Finally, enrollment procedures such as collecting applications and tuition fees are carried out. These procedures are transparently publicized during the preceding stages of the admissions process (marketing communications and admissions counseling) to ensure that the entire admissions process is conducted professionally and smoothly, achieving good results.

Resources for conducting admissions assessments, entrance examinations, and enrollment: Based on the content and forms mentioned above, these activities involve a large volume of work, including: (1) Admissions assessment: Involves receiving admissions applications, verifying the content of each application according to the school's standards, compiling results for each application, creating a list of successful applicants, and notifying them. (2) Entrance examinations: Include drafting examination papers, grading exams/interviews, compiling lists of students with specific results, etc.(3) Enrollment: Involves collecting enrollment documents and tuition fees

To carry out such a large volume of work, the school needs sufficient resources in terms of personnel, infrastructure, and finances: (1) Personnel: There must be an adequate quantity and quality of personnel (both in terms of character and capability) to meet the requirements of these tasks. The academic department (staff, faculty) and administrative office will primarily carry out these tasks. (2) Infrastructure: The university's facilities, equipment, and transportation must meet the requirements of admissions assessments, entrance examinations, and enrollment. (3) Financial conditions: The school's finances must also meet the requirements of admissions assessments, entrance examinations, and enrollment.

In general, conducting admissions assessments, entrance examinations, and enrollment requires support from various resources of the university, and these resources need to be planned and deployed appropriately according to the scale of admissions and enrollment of the university.

2.3. Opportunities and challenges of digital transformation in enrollment work

2.3.1. Opportunities of digital transformation in enrollment work

Digital transformation helps to ensure equal opportunities for access to services, education, and knowledge, thereby narrowing the gap through the development of digital government, digital economy, and digital society. Some benefits of digital transformation in university admissions can be evaluated as follows:

Time and Cost Savings, Transparency, and Fairness: Automating admission processes, from receiving applications to announcing results, saves time for both applicants and admission staff, as well as reduces printing and mailing costs. Digital transformation creates a transparent online admissions system, helping applicants and

parents understand the admission process and criteria better. Using admission evaluation software also allows for more objective assessments in the admission process.

- Enhanced Experience, Communication Efficiency: Developing applications on portals or mobile devices enables applicants and parents to easily track registration, submit applications, and receive result notifications. Chatbots and online support systems can address inquiries from applicants and parents about admissions 24/7. Utilizing social media and online tools helps universities reach a large number of potential students. Additionally, using data analytics tools allows for evaluating the effectiveness of advertising and marketing campaigns, enabling universities to adjust communication strategies flexibly and effectively.
- Improved Admission Quality, Reduced Workload for Admission Staff: Leveraging big data analytics to evaluate the quality of student inputs helps universities accurately assess admission quality and adjust admission criteria accordingly. Moreover, artificial intelligence systems can classify applications and provide admission counseling suggestions based on big data and criteria that universities are targeting. Admission staff no longer need to spend excessive time on data entry and document processing. They can easily access application information and monitor admission status remotely, contributing to more efficient admission processes.

In summary, digital transformation in university admissions not only helps save time and costs but also creates a better experience for parents, applicants, and university staff, enhances admission quality, and enables efficient data management..

2.3.2. Challenges of digital transformation in enrollment work

Digital transformation in the admissions process requires telecommunications infrastructure to develop to a certain extent. This factor is primarily related to the resources of each university, requiring collaboration with relevant organizations, businesses, and other universities. This poses a challenge for universities to find appropriate solutions for cooperation and resource mobilization for digital transformation in general and admissions in particular.

Digital transformation in admissions depends heavily on contextual factors, presenting opportunities for some groups while posing challenges for others.

Digital transformation in admissions is expected to maximize the efficiency of admissions and improve the quality of inputs. However, if network infrastructure, equipment, and technology solutions are not met, the issue of data security for applicants may not be guaranteed, potentially affecting the quality of admissions.

Digital transformation in admissions needs to leverage advanced technologies, develop applications on mobile devices or virtual reality software that allow for authentic visits or experiences of campus life for prospective students. This also presents a challenge in finding partners to develop suitable advanced technologies to optimize the admissions process.

The application of technology and digitization has created significant competitive pressures for universities. Technological advancements and increased transparency have created healthier competition among universities in terms of educational quality and reputation. However, they also pose challenges that require quick adaptation and change to survive and thrive..

I. CONCLUDE

Digital transformation in the university admissions process marks a new milestone in how universities interact with prospective students. By developing technology, universities can create an efficient, transparent, and comprehensive admissions process. Assessing the current situation, identifying, and forecasting the challenges posed to establish a reasonable digital transformation roadmap to enhance the quality and effectiveness of the admissions process is significant for universities in the current period. Based on the analysis of content related to digital transformation in admissions, the article has highlighted the opportunities and challenges of digital transformation in university admissions. This forms the basis for addressing some issues of concern in promoting transparent, fair, and effective digital transformation in the admissions process..

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