
PROSPECTS FOR THE USE OF FINTEX IN THE ORGANIZATION OF EFFECTIVE MANAGEMENT AND CONTROL OF THE QUALITY OF EDUCATION IN NON-STATE HIGHER EDUCATION ORGANIZATIONS

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Abstract

Keywords: non-governmental higher education organization, management, digitalization, FinTex, moodle, educational quality effectiveness, innovative management

In this article, methodologies for evaluating the effectiveness of educational quality, innovative effectiveness, management effectiveness based on modern models in improving the management of non-state higher education institutions were researched. In addition, the prospects of using FinTex in the organization of effective management and control of the quality of education in non-state higher education organizations were analyzed. It should be noted that University 1.0, University 2.0, University 4.0, University 4.0 models and their differences have been highlighted.

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Introduction

The modern current stage of development of the digital economy is causing changes not only in the state structure, various aspects of the economy, but also in people and their way of life. Today, unprecedented positive changes are being achieved in various aspects of human life through digitization and effective use of new innovative technologies. In particular, as a result of the rapid promotion of the digital economy today, the development of artificial intelligence, robotics, cyber technology, and nano technologies has been achieved. If we look at the data, in 2016 it was 294 thousand in Germany, USA, Japan, China and other countries under analysis, in 2019 this figure will be 484 thousand, and in 2022 it is forecasted to be 730 thousand. India leads the world in relative penetration of AI skills across all sectors (Figure 1).

In the process of developing today's innovative economy, the issue of speeding up the transition to the digital economy is of great importance for Uzbekistan. Because by transferring today's management and executive systems to the digital economy, it will be possible to increase the gross domestic product by at least 30 percent, and drastically reduce corruption. Implementation of digital transformation in economic sectors, development of

national information technologies and attracting investments in this direction is one of the urgent issues of today.

The use of FinTechs and its impact on the organization of effective management in non-governmental higher education organizations will achieve the following results: achieving economic stability and strengthening positions at the international level; achieving effective distribution of movement of material and financial resources; implementation of management control and monitoring over the effective distribution of material and financial resources; the quality of education can be improved.

RELATIVE AI SKILL PENETRATION RATE by INDUSTRY across GEOGRAPHIC AREA, 2015-21

Source: LinkedIn, 2021 | Chart: 2022 AI Index Report

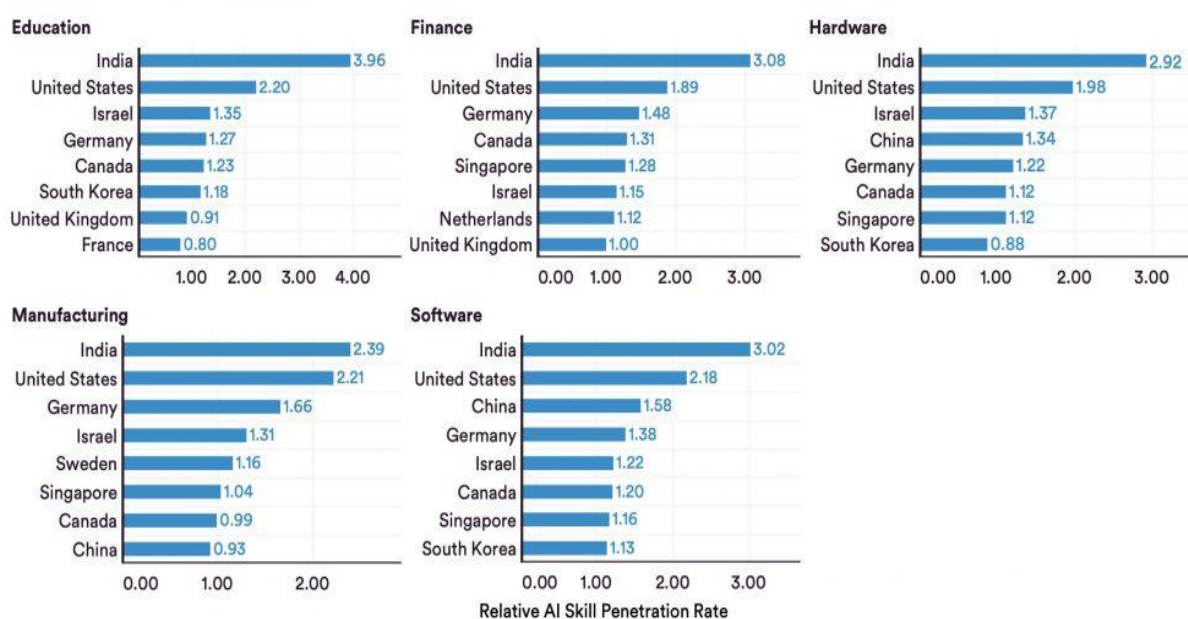


Figure 4.1.9

Figure 1. Analysis of the world's leading countries in terms of the scope of coverage of AI in the cross-section of industries¹

Based on the analysis carried out by the McKinsey Institute, it is scientifically proven that 60% of all professions in the world today, and 30% of existing professional activities can be easily automated, in addition, by 2030, 400 million jobs can be replaced by various levels of automated robots and machines. proved based on conclusions and analysis².

If we look at the forecast indicators, by 2025, digital technologies are set to grow to 22% of China's GDP, and to 34% in Russia. Also, by 2025, US spending on digital technologies is expected to reach 1.6-2.2 trillion US dollars.

¹ <https://deepai.org/publication/the-ai-index-2021-annual-report>

² <https://deepai.org/publication/the-ai-index-2021-annual-report>

Literature review

Not all universities consider digitalization as a priority for the modernization of the educational process. At the same time, they cannot remain aloof from technological progress, which promises certain benefits to all interested parties, since it is believed that the introduction of digital technologies and tools expands the possibilities of using interactive teaching methods and positively affects the involvement of students in the learning process³.

Effective technologies include the use of learning management systems (LMS), which, according to researchers, facilitate access to educational materials and make the learning process more flexible⁴.

Digital technologies based on artificial intelligence, such as chatbots, according to researchers, are also very useful in organizing the educational process. The literature describes examples of the use of chatbots in the activities of university libraries. The study showed that it is convenient for students to use the chatbot: they get the necessary literature or the answer to their question faster; they may not go to the library if it is far away. Some students find it more convenient to ask questions not to the librarian personally, but to the chatbot. Thus, this technology is a real assistant for students, facilitating their work with the search for literature and the execution of relevant orders. At the same time, the chatbot frees library staff from routine work⁵.

Along with digital technologies in universities, even those that adhere to a conservative model of education, interactive Web 2.0 tools are used in educational practice, which are created on Internet resources such as Wikia, Babylon, Wikidot, etc., using various services (for example, Learning Apps). It is believed that these tools can increase students' interest in learning, increase their involvement in the learning process, and improve the quality of preparation for future professional activities⁶.

Online education, according to experts, has a number of advantages over the traditional educational model. It gives access to higher education to a wider range of those who want to receive it, allows you to repeatedly reproduce educational material, which facilitates its assimilation, provides an opportunity for students to independently choose a convenient form of mastering the material and form a schedule of classes, thereby ensuring the individualization of educational trajectories. It significantly reduces the public costs of higher education through the formation of a network model of education with key competencies distributed among universities and a reduction in the number of university teachers⁷.

Reflecting on the intensive development of online education, one cannot fail to notice more global social risks. Thus, competition between Internet portals providing online learning services, as well as between universities seeking to expand their influence through

³ Kolb D.A. *Experiential learning: experience as the source of learning and development*. EnglewoodCliffs, NJ: Prentice Hall, 1984, 22 p. Available at: <http://www.learningfromexperience.com/images/uploads/process-of-experiential-learning.pdf>

⁴ Sappey J. Dr, Relf St. *Digital Technology Education and its Impact on Traditional Academic Roles and Practice*. *Journal of University Teaching & Learning Practice*, 2010, no. 7 (1), pp. 1–17.

⁵ Higgins St., Xiao Z. and Katsipataki M. *The Impact of Digital Technology on Learning: A Summary for the Education Endowment Foundation*. Full report. Durham University, 2012.

⁶ Maloshonok N. *How Using the Internet and Multimedia Technology in the Learning Process Correlates with Student Engagement*. *Educational issues*, 2016, no. 4, pp. 59–83. DOI: 10.17323/1814-9545-2016-4-59-83. (In Russian)

⁷ Zaripova R.R., Salekhova L.L., Danilov A.V. *Interactive Web 2.0. Tools in Content and Language Integrated Learning*. *Higher Education in Russia*, 2017, no. 1 (208), pp. 78–83. (In Russian)

online courses, leads to the growth of duplicating disciplines and educational materials and, as a result, to leveling the effect of the network model of education. Moreover, low-quality educational materials appear on the Internet, sometimes not meeting the minimum requirements for educational materials in the higher education system. In this case, there is a risk of reducing the quality of training of university graduates⁸.

Analysis and discussion

In 2016, in order to control, compare and monitor the process of state and corporate financial management with the help of the analysis of the process of digitization of the economy and the determination of relevant indices, the European Commission presented the methodology of calculation and maintenance of I-DESI, which is calculated at the international level. During the calculation of this index, the level of interconnection between different sectors of the economy, the level of human capital and the financial resources directed to it, the level of internet use at the national level, the level of integration of digital technologies into various aspects of the economy, the types of digitized public services and their level of development are calculated based on important indicators. will be done. This index serves to show the level of development in this field among the countries of Australia, Brazil, Canada, China, Iceland, Israel, Japan, South Korea, Mexico, New Zealand, Norway, Russia, Switzerland, Turkey and the USA. In particular, Figure 4 shows the results of the I-DESI sub-indices determined by developed countries in 2018, and the highest rate of the Digital (I-DESI) index was in South Korea, Norway and Iceland, which was above 70 percent. In terms of human capital and financial resources spent on it, South Korea, Norway, Iceland, and Japan have the highest rate of 79.8% in South Korea. These countries have also taken the leading positions in terms of the level of Internet use, the level of integration of digital technologies into various aspects of the economy, and the types of digitized public services.

Table 1.3 shows the analysis of the funds invested in the digital economy by developed countries. Among the countries that have invested in financial innovative technologies, China and the United States take the leading place, and in China this figure was 7,158 million dollars. China also took the lead in spending on "virtual reality" (virtual reality, VR), amounting to 7,158 million dollars.

The United States was the leader in terms of spending on Big Data, equal to 6,065 million dollars.

⁸ Klikunov N.D. The Impact of Network Technologies on the Transformation of Russian Higher Education. Higher Education in Russia, 2017, no. 3 (210), pp. 78–85. (In Russian)

Table 1. Analysis of funds attracted to the digital economy by developed countries⁹

Countries that have attracted financial innovative technologies (Fintech).	Value (inmilliondo llars)	"Virtual reality" (VR)	Value (inmilliondo llars)	To the Autonomous Management System	Value (inmilliondo llars)
China	7,158	China	7,158	USA	582
USA	5,437	USA	5,437	China	367
GreatBritain	1,793	GreatBritain	1,793	Japan	268
Germany	668	Germany	668	Australia	264
Japan	493	Japan	493	GreatBritain	142
Innovative devices	Value (inmilliondo llars)	To educational technology	Value (inmilliondo llars)	Robotics and drones	Value (inmilliondo llars)
USA	1,724	USA	1,282	USA	728
China	992	China	681	China	227
Germany	170	Japan	217	Japan	129
Canada	130	GreatBritain	163	Singapore	96
GreatBritain	95	India	145	Canada	59
3D printing	Value (inmilliondo llars)	BigData	Value (inmilliondo llars)	AI and automated learning	Value (inmilliondo llars)
USA	602	USA	6,065	USA	3,782
China	221	GreatBritain	1,673	GreatBritain	1,222
Germany	182	China	942	China	900
Japan	181	Singapore	651	Japan	473
Russia	181	Russia	554	Australia	329

⁹<http://ru.newsbt.com>

The development of the information society and the widespread introduction of ICT are directly related to the development of the digital transformation of various sectors of the economy, including education, which is a key component of the country's innovative development. The program of socio-economic development of the Republic of Uzbekistan for 2016-2020 considers informatization as a national priority that predetermines the solution of key tasks: creation of one of the most modern telecommunication infrastructures in Central Asia; introduction of technologies for collecting and processing large data arrays in all industries; use of the latest technologies for the transfer and storage of information in banking; sphere, public administration, notaries, etc.; economy, first of all in medicine, trade and agriculture; creation of a full-fledged e-government; development of electronic trade on the basis of modern international standards; widespread use of electronic learning tools; digital transformation of the main sectors of the national economy based on modern technological trends: the Internet of Things, cyber-physical systems, geographic information systems and spatial data, intelligent systems; creation of legal, educational and investment environment (including issues); taxation, protection of intellectual property and investments, movement of capital), the most favorable for the development of digital technologies, new technological projects, business in the field of information technology, etc.

In the process of developing today's innovative economy, the issue of speeding up the transition to the digital economy is of great importance for Uzbekistan. Because by transferring today's management and executive systems to the digital economy, it will be possible to increase the gross domestic product by at least 30 percent, and drastically reduce corruption. Implementation of digital transformation in economic sectors, development of national information technologies and attracting investments in this direction is one of the urgent issues of today. In addition, our country is gradually transitioning to the use of the University 3.0 model.

First-generation universities are "educational" (teaching institutions) and constitute the majority of higher education institutions in the world. Research activities in such universities are significantly limited or absent. For the further development of University 1.0, first of all, it is necessary to create a high-quality research base: without it, the university cannot ensure management efficiency in new, changing conditions. Universities 2.0 already have a scientific research base, there are real scientists among the teachers, education is closely connected with scientific research. These are not only "educational institutions", but really have the status of a university. Universities 3.0 are network universities that cooperate with various industry companies, non-state research and development organizations, consulting companies, investors, as well as other universities. University 3.0 model – production of highly qualified specialists as a result of creation of education and technology chain, creation and implementation of scientific developments, implementation of new technological scientific developments in the economy, development of projects for introduction of advanced technologies, high demand in the future It is a creator of new markets, new technologies, new services, forecasting existing specialists, opening new educational directions, closing directions that are not in demand in the market.

-University 3+ model - the university of innovation comes to the field with the creation of the value chain of knowledge+skills+skills+experience based on the management method.

-University 3.1 model – University 3.0. as a project command generator. Development units are organized based on the mechanism of forming complete project teams as scientist

+economist + engineer + entrepreneur or author + financial director + technical director + CEO.

-University 3.2 model – social and regional components (Life and development environment) are added to the three-way spiral of regional proactive development.

-University 3.3 model - known as Hub University or Network University, the main focus of management is the production of technological devices for economic and non-economic entities and network creator.

The fourth-generation university is considered a "driver of economic growth" and is the basis of global competitiveness of national economies and international associations. The entrepreneurial ecosystem of the fourth-generation university forms new, rapidly developing industries, promising technological markets, and leading administrative-territorial spaces. University 4.0 includes: • advanced methodology and experiences; • long-term priorities of social, economic, scientific and technical development; • development of national innovative systems; • innovative strategies at the national, regional, branch and corporate levels; • the uniqueness of all stages of the innovation process - from the emergence of the idea to the release of the finished product to the market; • technological change and its impact on the economy, politics and society; • technological trends and achievements; • innovation management in the business environment; • human capital formation and opportunities.

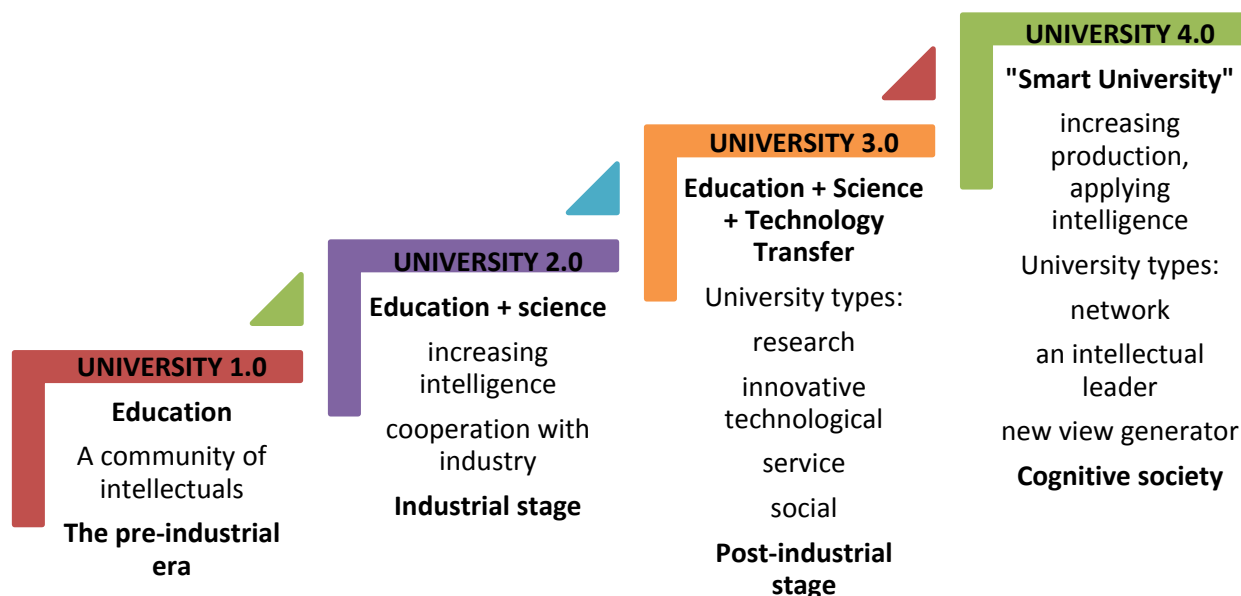


Figure 2. Description of evolutionary development models of higher education¹⁰

Our society is undergoing profound and fundamental changes affecting all areas of life. Globalization is one of the driving forces, but it is expected that technological development will lead to the most significant changes. Closely related global crises of a different nature - financial, economic, demographic, medical and the crisis of international relations interact with each other. In such conditions, a number of factors and risks have a serious impact on the growth trends of the higher education system.

¹⁰It was prepared based on the author's research.

Technological development and the transition to the Fourth Industrial Revolution generate processes of fundamental changes in the organization of social production and business models. The traditional labor market and the familiar industrial structure have changed at hitherto unknown rates, and there has been a demand for new types of employment and professions. On a global scale, the process of creating a new educational, scientific and innovative ecosystem has begun, which not only increased stakeholder participation, but also significantly increased the requirements for quality, transparency and social participation. The updated Lisbon Declaration categorically states that “The key task of universities is to prepare the population of European countries, both young people and older people, to fulfill their role in society, on the basis of knowledge in which economic, social and cultural development primarily depends on development and dissemination of knowledge and skills. There are a number of challenges to traditional academic connections and relationships that are creating new social dynamics in higher education systems, increasing diversity and diversity within and between institutions.

Global virtual learning platforms have emerged offering access to learning. They have changed the educational market and become serious competitors to traditional educational institutions. This has necessitated a quick and adequate response in relation to the flexibility in the offer and the variety of educational services and products. Last but not least, the complex geopolitical environment is also having an impact on the education market and student profile, and this trend will continue. All these global factors of influence significantly change the environment and public expectations from higher education and set new requirements for it, bring to the fore new indicators of the competitiveness of universities, which become a priority in their strategic development.

Analysis of a complex and dynamically changing environment provides an opportunity to identify the following most important global challenges for universities and educational systems:

Increasing the role of science and innovation in the development of a competitive economy and solving social problems

To achieve sustainable development, it is necessary to develop a knowledge-intensive sector of the economy. An important condition and prerequisite for the prosperity of modern society is the ability to use the most modern scientific achievements to develop a competitive economy, improve the welfare of the population, provide high-quality services, and effectively manage social and political processes. This is possible through the development of fundamental and applied scientific research, and the formation of skills to use existing scientific knowledge for:

development of new technologies in various fields that provide a key competitive advantage in the global market;

effectively addressing important societal issues and challenges by applying the expert method in decision-making and policy development and implementation.

Universal digitalization and the development of education systems that complement or are an alternative to classical higher education.

The challenges and problems of higher education that have arisen as a result of mass digitalization have not yet been resolved. Among them, the most important ones can be identified: the theory of the provision of educational services in the electronic environment, the methods of e-learning, as well as the necessary digital infrastructure to ensure a high-quality educational process, are not well developed and not tested. The time for technological

changes in some segments of the economy turned out to be too short and does not correspond to the long-term prospects for organizing the educational process. Undoubtedly, digitalization means new learning opportunities, destroys our traditional ideas about the limitations within the classroom and the role of the teacher in this process, but at the same time has increased the degree of uncertainty among all representatives of the academic community.

The emerging global virtual educational platforms offering access to quality learning have changed the educational market and become serious competitors to traditional educational institutions.

The discrepancy between the needs of digital generation and the competencies necessary for successful implementation in the conditions of the Fourth Industrial Revolution.

The speed with which the industrial structure is changing significantly brings the horizon to which it will be possible to predict the direction of the development of the labor market. As a report from the World Economic Forum points out, in five years, a third of the skills that employers currently consider important will change. The conclusion that, due to the rapid pace and wide scope of change, there is not enough time to adapt and create training systems for the needs of the labor market has emerged as one of the main challenges for higher education.

Obviously, it is necessary to build active partnership strategies between business, governments, educational institutions and civil society. The place and way of working are being transformed and this will lead to new challenges in managing and regulating this process. In such a rapidly evolving labor market, preparing for the future is increasingly critical to maximizing opportunities and mitigating unwanted impacts.

Changing the role, goals and functions of higher education, especially in the development of an innovation ecosystem

One of the biggest challenges facing higher education is the increased demands placed on universities in terms of research and innovation. Innovation is becoming a cultural practice and universities have a key role to play in this process.

A study by the European University Association, covering the countries of Europe, has identified the most significant and new transition trends:

- from linear to iterative innovation: universities and companies no longer view innovation as a linear process that leads from basic, applied research to commercialization in a continuous line;

- from closed to open innovation: open innovation enhances the role of universities. Given the increasing complexity of technology development and accelerating innovation cycles, companies are adopting new models of open innovation that include external partners even in core development processes;

- From technological innovation to system innovation: innovative approaches are expanding to include technological, social and economic innovation on common agendas. Business, local authorities and universities are looking for a systematic approach to address pressing issues, often related to topics such as digitalization and sustainability, which can only be addressed from the perspective of all stakeholders;

- from individual to collaborative and interdisciplinary innovations. Ecosystem participants believe that the most important role of the university in innovation lies in its ability to “incubate interdisciplinary research” and teach interdisciplinary thinking and competencies based on a deep knowledge of disciplinary methods;

- from spontaneous to systematic innovations. In research, all participants in the ecosystem develop innovations in a systematic and strategic way. In most universities, there is a close relationship between the development strategies of universities and regions;

-from innovation based on exchange to the joint creation of innovation spaces. With the increase in experience and trust between partners, cooperation develops in a single innovative space, geographically, socially and culturally. Universities play a key role in providing the core research infrastructures around which these innovation spaces are organized. Innovation becomes an interdependent co-creation between actors from different sectors and organizations.

Digitalization is a process that has become an integral part of the development of modern education. The digital transformation of pedagogical work is due to the active development of information technologies, as well as the need to expand opportunities for interaction between the teacher and the student, to increase the effectiveness of training.

With regard to educational institutions, digitalization actively affects two main areas:
 university management processes (automation and optimization of business processes, risk management in decision-making, digital format of interaction with contractors);
 introduction of digital technologies in the educational process (distance interaction and learning, modeling, simulators and simulators, augmented and virtual reality).

The main drivers of digitalization of education are the following:

1. Increasing the competitiveness of an educational institution by increasing the attractiveness of education for students and other students, as well as reducing the volume of the "classic" classroom load and increasing the teaching staff (the possibility of individualizing the time trajectory of the educational process, individualizing the content of educational programs, improving the dynamics of updating education and etc.).

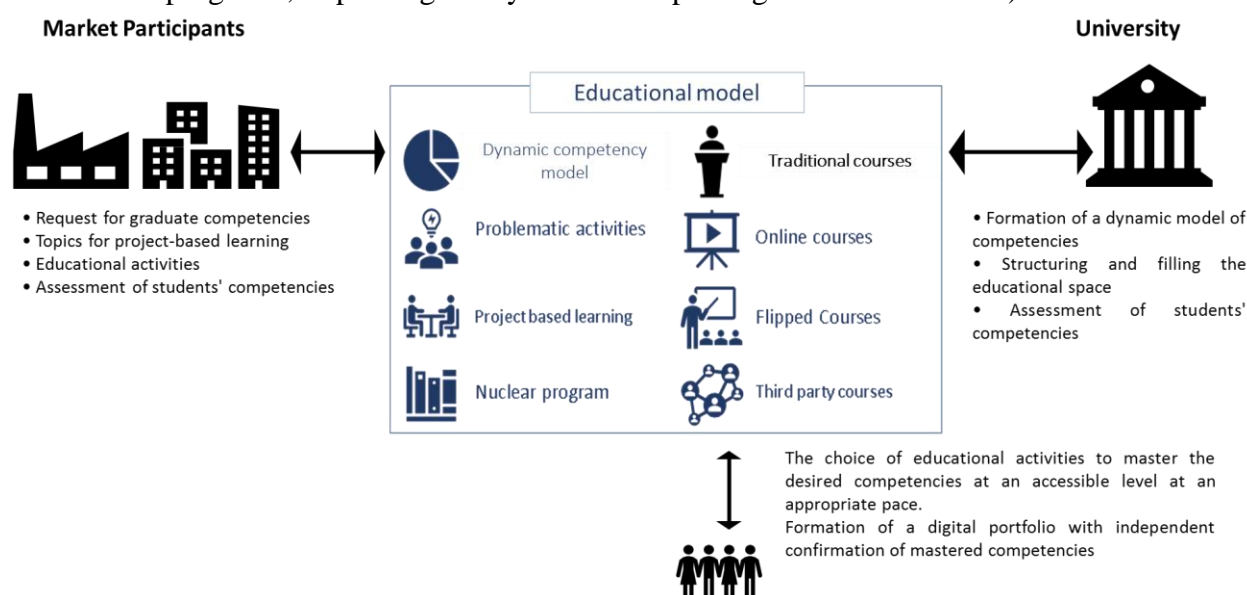


Figure 3. Features of the digital transformation model of the educational process¹¹

2. Increasing the availability of educational services and expanding the contingent of students in educational institutions. This is due to the increase in the target audience of the educational institution and is primarily focused on foreign students. It also includes the

¹¹ It was prepared based on the author's research.

exceptional marketing opportunities offered by the use of information and communication technologies (ICTs).

3. Search for reserves to improve management efficiency. Here, the key points are finding trigger points for making managerial decisions, the possibility of modeling the consequences of the development of situations, and monitoring a specific situation in "real time" mode. As the expected results of the digitalization of education, the following are often distinguished:

- formation of a single information and academic space "online" and "offline", expansion of opportunities for university communication, teamwork;
- creation of a digital profile for students as an alternative to the classical grade book and a digital profile of a teacher, taking into account the results of pedagogical, scientific and innovative activities;
- providing students with the opportunity to form an individual educational trajectory through the expanded use of electronic resources and modern control and diagnostic tools;
- automating the planning of the educational process and material support for its implementation, the use of data on the progress of training in making managerial decisions.

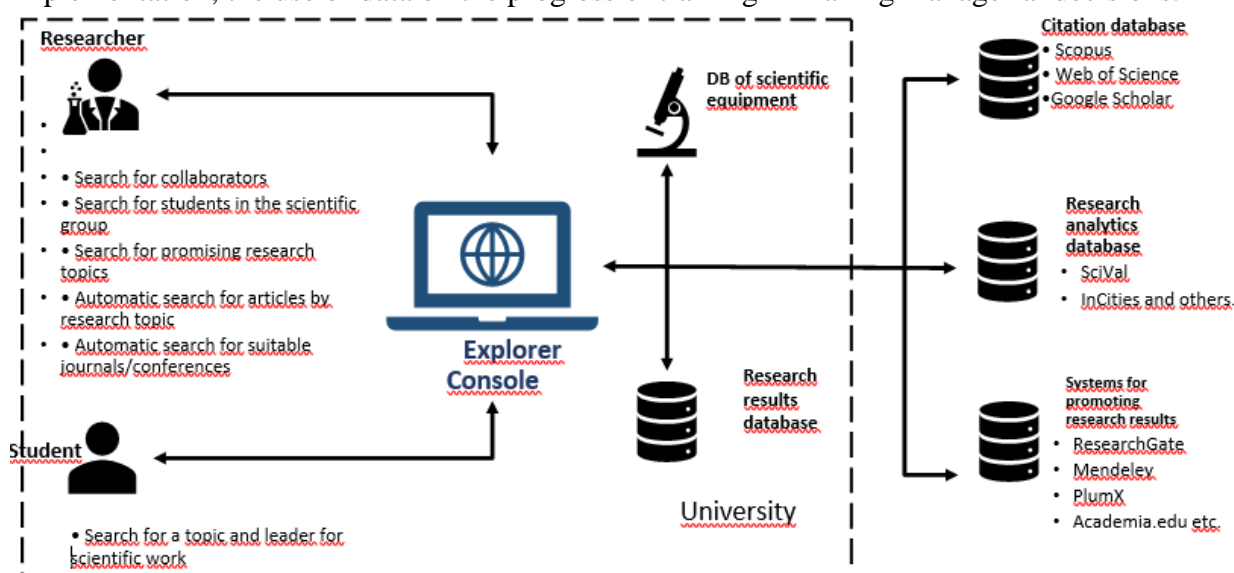


Figure 4. Features of the digital transformation model of the research process¹²

It can be summarized that digital transformation is the use of digital technologies as a tool for reengineering business processes.

At the same time, unified models and approaches to the implementation of digital transformation in higher education have not yet been developed, and the current stage is characterized by the active use of digital solutions in practice and the accumulation of both primary data and best practices and best practices, a discussion of methodological approaches to describing processes and results. . An analysis of the use of digital transformation mechanisms in educational institutions allows us to identify the following stages of their digital maturity (table 2).

¹² It was prepared based on the author's research.

At the first stage, primary digitalization takes place: the creation of databases, the maintenance of digital accounting of processes and electronic document management, the organization of access to data using information systems and websites.

Stage II is characterized by digital optimization: the formation of an integrated information system of the university, automation of data collection, reengineering of business processes into end-to-end ones, the implementation of electronic interaction based on EDS (electronic digital signature), the creation of personal accounts for users of an integrated information system with event notification mechanisms.

Table 2. Stages of digital maturity of educational institutions¹³

	Stage I Primary digitalization:	Stage II Characterized by digital optimization:	Stage III Moving from digital optimization to digital manageability	Stage IV Complex digital transformation of business processes using robotic elements
Date	Digital accounting, database formation	Unified university database, ERP, automation of data collection	Data integrity	Big data for analytics
Processes	Working with digital data and their generation, electronic document	End-to-end processes (B2B, B2C, B2G), distance learning system and digital signature	Automatic execution of processes and KPIs based on them	Robotization (AI, neural networks and expert systems)
Interaction	Information systems, sites and portals	Personal accounts, notifications, desktops	Mobility, ergonomics	Integrated interfaces and intelligent services
People	Basic PC user skills and work in applied systems	Professional use of system functionality	Digital collaboration, knowledge management	Employee digital profiles and management

At stage III, the transition from digital optimization to digital manageability is formed: automation of business processes with an assessment of their implementation according to key performance indicators.

Stage IV of the presented model characterizes the complex digital transformation of business processes using elements of robotization and digital competency profiles. The

¹³ It was prepared based on the author's research.

implementation of this stage requires not only appropriate resource provision, but also a very high level of human resources, which is available primarily to leading institutions of higher education with a developed information infrastructure. The development of effective solutions in each of the areas is one of the important practical tasks that creative teams at universities are currently working on.

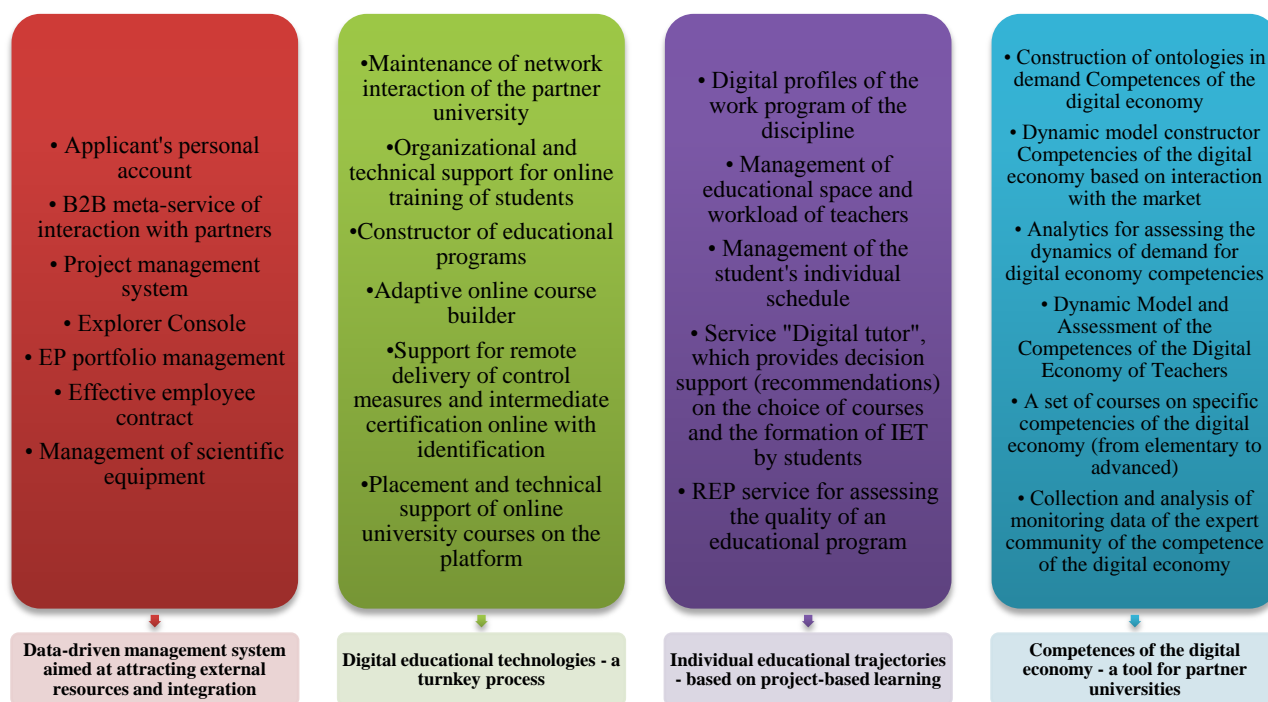


Figure 5. Features of the digital transformation model of the research process¹⁴

The digitalization of the educational process provides additional opportunities for the implementation of network educational programs in terms of harmonizing the curricula of partner universities, as well as eliminating academic differences and the availability of specialized courses. At the same time, the huge impact of the digital transformation of the university on its competitive environment should be noted.

First of all, this is an increase in the attractiveness of the educational process through the use of interactive materials, electronic educational resources and the redistribution of the classroom load from lectures to practical and project activities with consulting.

Secondly, it is the improvement of feedback with the student through constant monitoring of the educational process using the tools of the e-learning system.

Thirdly, it is the acceleration of mutual action based on operational communication with the help of ICT between students and university employees (movement of the contingent, contractual relations, payment, document turnover, etc.).

¹⁴ It was prepared based on the author's research.

The growth of the competitiveness of an educational institution based on digital transformation makes it possible, among other things, to increase income from the provision of educational services (due to an increase in the volume of exports), reduce training costs and, in general, increase the economic efficiency of the educational process.

On the other hand, in the context of the active development of digital education, competition between various types of educational programs for adults is also growing. Reports from distance platforms such as Fintex show a multiple increase in the number of users and learners over the past year. The growing integration and competition of higher education, additional and non-formal adult education in the context of financial technology is also a challenge for the modern university.

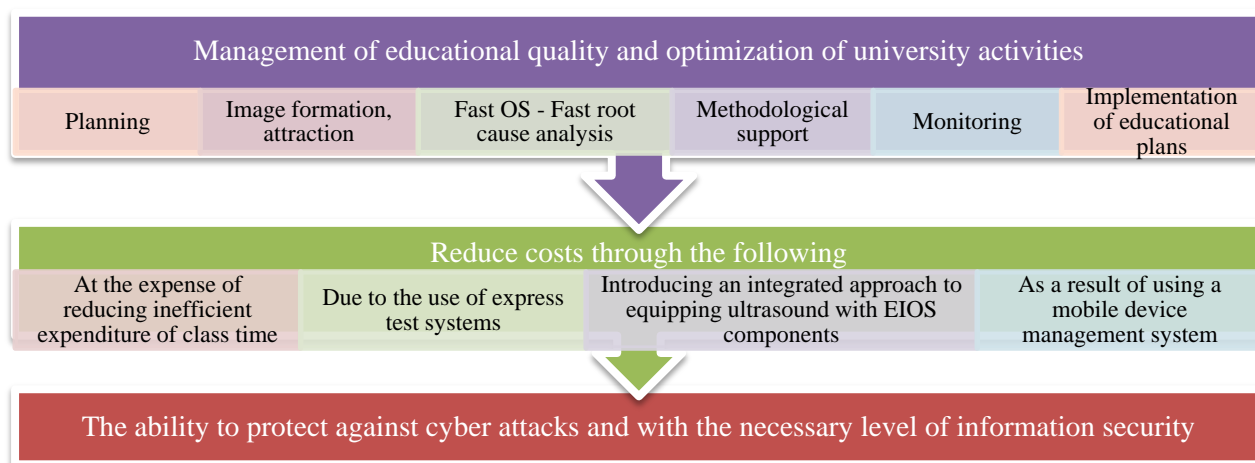


Figure 6. Description of digital university implementation opportunities¹⁵

The digital transformation of higher education includes:

1) digital transformation of the educational process - distance learning, bases of open educational resources, the use of virtual and augmented reality technologies, electronic textbooks and teaching aids, electronic educational and methodological complexes;

2) digital transformation of the management of the higher education system - the introduction of technologies in order to provide analytics of the course and results of the educational process, predict student performance, use cloud technologies to more effectively organize network resources of higher education institutions and combine them into a single educational network;

3) improving the ICT competence of teachers of higher education institutions, as well as specialists of government bodies implementing policy in the field of education.

¹⁵Author's analysis.

Table 3. Description of the use of FinTex and its influence on the organization of effective management in non-state higher education institutions¹⁶

Objectiveы	Affecting areas of activity and their description
Achieving economic stability and strengthening positions at the international level	Ensuring continuous economic growth and creating an optimal economic structure; implementation of effective management policy; provision of socio-economic stability; ensure compliance of educational plans and programs with the needs of the economy and world scientific achievements in the international ranking; achieve the development of external evaluation by accreditation bodies or local and foreign partner institutions; creation of new professional and specialized programs and courses; establishing joint programs in English with foreign universities.
Ensuring effective distribution of material and financial resources movement	Achieving the introduction of an effective quality management system; ensure effective distribution of material and moral resources; ensure information security; ensuring the level of adequacy of the base of material and moral resources and the diversification of resources; establish cooperation with community representatives of the remote business advisory board; to increase the efficiency of the average time of responding to students' requests and complaints; achieve efficiency in organizing exams online; establishment of distance education; achieve reduction of excess costs as a result of digitalization of document transfer, processing and storage procedures.
Implementation of management control and monitoring over the effective distribution of material and financial resources	To establish a permanent monitoring board and public control over the effective allocation of resources, to carry out constant continuous monitoring, to establish the process of timely identification of problems and deficiencies.
Improving the effectiveness of the quality of education	Increasing transparency in teaching and evaluating students, meeting students' demand for distance education services, encouraging human capital, achieving an effective mechanism for attracting financial resources to human capital, reducing the human factor in management, and increasing transparency in motivating professors.

¹⁶It was prepared based on the author's research.

The penetration of financial technologies (FinTech) into all spheres of life requires a new quality of education from the mass worker. Today, elementary literacy, which is formed by the existing education system, is not enough, more than 50% of employees perform work where the required level of literacy can be replaced by a computer. Only 13% of them have a literacy rate that exceeds the level of intelligent computer systems (currently or expected in the next ten years). At the same time, the share of workers with a high level of general literacy has decreased compared to the 1990s. The training of modern workers is inferior to the training of workers who worked two decades ago. The modern education system needs fundamental changes.

Conclusion

In the process of developing today's innovative economy, the issue of speeding up the transition to the digital economy is of great importance for Uzbekistan. Because by transferring today's management and executive systems to the digital economy, it will be possible to increase the gross domestic product by at least 30 percent, and drastically reduce corruption. Implementation of digital transformation in economic sectors, development of national information technologies and attracting investments in this direction is one of the urgent issues of today.

The use of FinTech and its impact on the organization of effective management in non-state higher education institutions will achieve the following results: achieving economic stability and strengthening positions at the international level; achieving effective distribution of movement of material and financial resources; implementation of management control and monitoring over the effective distribution of material and financial resources; the quality of education can be improved.

For the further development of University 1.0, first of all, it is necessary to create a high-quality research base: without it, the university cannot ensure management efficiency in new, changing conditions. Universities 2.0 already have a scientific research base, there are real scientists among the teachers, education is closely connected with scientific research. These are not only "educational institutions", but really have the status of a university. Universities 3.0 are network universities that cooperate with various industry companies, non-state research and development organizations, consulting companies, investors, as well as other universities.

The fourth-generation university is considered a "driver of economic growth" and is the basis of global competitiveness of national economies and international associations. The entrepreneurial ecosystem of the fourth-generation university forms new, rapidly developing industries, promising technological markets, and leading administrative-territorial spaces. University 4.0 includes: advanced methodology and experiences; long-term priorities of social, economic, scientific and technical development; development of national innovative systems; innovative strategies at the national, regional, branch and corporate levels; the uniqueness of all stages of the innovation process - from the emergence of the idea to the release of the finished product to the market; technological change and its impact on the

economy, politics and society; technological trends and achievements; innovation management in the business environment; human capital formation and opportunities.

An important element to be considered in the process of improving educational programs and ensuring the quality of education is the monitoring of the professional fate of graduates who evaluate the quality of the work of professors and teachers, individual departments of the administration, and the quality of education in specific areas, including the curriculum. Cooperation between education and production enterprises leads to an increase in the quality of education in the conditions of the digital economy, that is, they serve to increase the effectiveness of the program and educational results.

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