INNOVATIVE TEACHING MODELS AND APPLICATION PROSPECTS IN HIGHER EDUCATION IN THE DIGITAL ECONOMY

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Abstract. *In the 21st century, economic interactions have undergone profound transformation. The widespread adoption of digital technologies within economic systems has led to the emergence of innovative management approaches, new career paths, and evolving skill demands. The integration of digital technologies into economic systems has led to qualitative changes in the management mechanisms of higher education institutions and the content of education. This transformation directly affects the activities of higher education institutions and necessitates the restructuring of the educational process, especially in economics-oriented specialties. The research study examines the transformation of higher education in the digital economy and the directions of formation of innovative teaching models. The purpose of the study is to determine the theoretical foundations of innovative teaching models in higher education in economic specialties, systematize their application mechanisms and analyze their impact on efficiency indicators. The research used comparative analysis, systematic approach, and conceptual generalization methods. As a result, it was determined that project-based learning, digital assessment systems, and university-business cooperation adapted to the requirements of the digital economy are considered the main directions for improving the quality of higher education.*

Keywords: *digital economy, higher education, innovative teaching models, economic education, quality assurance, digital transformation.*

RAQAMLI IQTISODIYOTDA OLIY TA'LIMDA INNOVATSION O'QITISHNING MODELLARI VA QO'LLANISH ISTIQBOTLARI

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Annotatsiya. *XXI asrda iqtisodiy munosabatlar chuqur transformatsiyani boshdan kechirdi. Iqtisodiy tizimlarda raqamli texnologiyalarning keng joriy etilishi innovatsion boshqaruv yondashuvlari, yangi kasb yo'nalishlari hamda o'zgaruvchan ko'nikma talablari paydo bo'lishiga olib keldi. Raqamli texnologiyalarning iqtisodiy tizimlarga integratsiyasi oliy ta'lim muassasalarining boshqaruv mexanizmlari va ta'lim mazmunida sifat jihatidan o'zgarishlarga sabab bo'ldi. Ushbu transformatsiya oliy ta'lim muassasalari faoliyatiga bevosita ta'sir ko'rsatib, ayniqsa iqtisodiyot yo'nalishidagi mutaxassisliklarda ta'lim jarayonini qayta tuzishni talab etadi. Tadqiqot raqamli iqtisodiyot sharoitida oliy ta'limning transformatsiyasini va innovatsion o'qitish modellari shakllanish yo'nalishlarini o'rganadi. Tadqiqotning maqsadi iqtisodiyot yo'nalishlarida oliy ta'lim uchun innovatsion o'qitish modellari nazariy asoslarini aniqlash, ularning qo'llash mexanizmlarini tizimlashtirish hamda samaradorlik ko'rsatkichlariga ta'sirini tahlil qilishdan iborat. Tadqiqotda qiyosiy tahlil, tizimli yondashuv va konseptual umumlashtirish metodlaridan foydalanildi. Natijada aniqlanishicha, loyiha asosida o'qitish, raqamli baholash tizimlari hamda raqamli iqtisodiyot talablariga moslashtirilgan universitet–biznes hamkorligi oliy ta'lim sifatini oshirishning asosiy yo'nalishlari hisoblanadi.*

Kalit so'zlar: *raqamli iqtisodiyot, oliy ta'lim, innovatsion o'qitish modellari, iqtisodiy ta'lim, sifatni ta'minlash, raqamli transformatsiya.*

ИННОВАЦИОННЫЕ МОДЕЛИ ОБУЧЕНИЯ И ПЕРСПЕКТИВЫ ПРИМЕНЕНИЯ

В ВЫСШЕМ ОБРАЗОВАНИИ В ЦИФРОВОЙ ЭКОНОМИКЕ

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Аннотация. *В XXI веке экономические взаимодействия претерпели глубокую трансформацию. Широкое внедрение цифровых технологий в экономические системы привело к появлению инновационных подходов к управлению, новых карьерных путей и изменению требований к навыкам. Интеграция цифровых технологий в экономические системы привела к качественным изменениям в механизмах управления высшими учебными заведениями и содержании образования. Эта трансформация напрямую влияет на деятельность высших учебных заведений и требует реструктуризации образовательного процесса, особенно в экономико-ориентированных специальностях. В исследовании рассматривается трансформация высшего образования в условиях цифровой экономики и направления формирования инновационных моделей обучения. Цель исследования – определить теоретические основы инновационных моделей обучения в высшем образовании по экономическим специальностям, систематизировать механизмы их применения и проанализировать их влияние на показатели эффективности. В исследовании использованы методы сравнительного анализа, системного подхода и концептуального обобщения. В результате установлено, что проектное обучение, цифровые системы оценки и университетско-бизнесовое сотрудничество, адаптированные к требованиям цифровой экономики, являются основными направлениями повышения качества высшего образования.*

Ключевые слова: *цифровая экономика, высшее образование, инновационные модели обучения, экономическое образование, обеспечение качества, цифровая трансформация.*

Introduction. The digitalization of the global economic environment has accelerated structural changes in the production, service and financial sectors, and as a result of the widespread application of information and communication technologies, economic relations have become more flexible, information-based and innovative. These changes have formed new demands in the labor market and set new tasks for the higher education system. In a constantly changing market environment, the main goal has been not only the transfer of theoretical knowledge, but also the preparation of specialists who can make flexible decisions and work with digital tools. The widespread application of information and communication technologies, processing of large volumes of data, artificial intelligence and automation processes have turned knowledge into basic capital, increased the value of intellectual resources and created a demand for new skills. These changes require, in particular, the level of preparation of students studying in economics, finance and management, as well as the content and methodology of teaching to adapt to market changes. The failure of traditional teaching models to fully meet the requirements of the digital economic environment necessitates the application of innovative teaching methods and new pedagogical approaches [1, p. 10]. For this purpose, the scientific basis of innovative teaching models in higher economic education was analyzed in the research work, and their application directions were determined.

The essence of the digital economy and its impact on higher education

The digital economy is characterized by the integration of information technologies into all stages of economic activity. In this economic model, information becomes one of the main production factors. E-commerce, digital financial services, cloud technologies and artificial intelligence applications are reshaping the structure of economic activity [16, p. 57]. The transformation of the digital economy affects higher education in 3 directions (Figure 1).

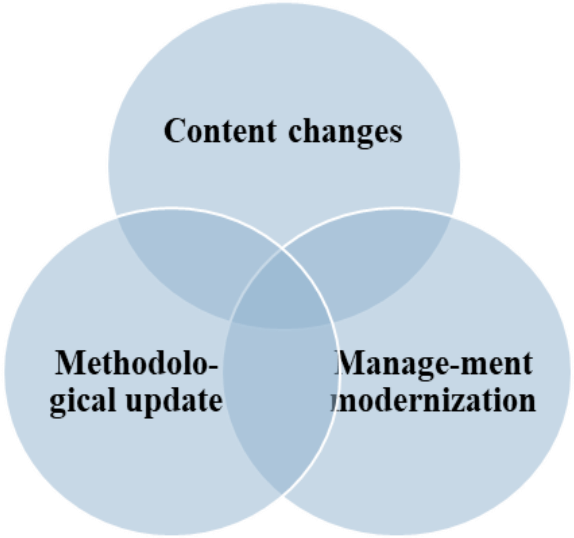


Figure 1. Directions of impact of digital transformation on higher education.

The essence of these directions can be reflected as follows:

➢ Content changes necessitate the inclusion of new subjects such as data analytics, digital financial instruments, and information security in economic specialties.

➢ Methodological renewal requires the application of interactive and technology-based approaches in the educational process.

➢ Modernization of management necessitates the strategic planning of universities to be based on the principles of digital transformation.

The fact that higher education institutions have a flexible and adaptive structure in accordance with the requirements of the digital economy makes the application of innovative educational models relevant.

Theoretical foundations of innovative teaching models in higher economic education

The innovative teaching model implies a student-centered, interactive and result-oriented pedagogical system. In the new era, the training of personnel in economic specialties in the higher education system should not be limited only to the transfer of theoretical knowledge, but should also be aimed at the formation of practical skills, analytical thinking and digital competencies. The rapid change in the global economic environment, the expansion of digitalization processes and the new requirements of the labor market necessitate the application of innovative approaches in the educational process. Student-centered and interactive teaching models play an important role in improving the quality of economic education and increasing the demand for labor market.

The table below presents modern teaching models that can be applied in economic specialties, their brief content, practical application examples, advantages and possible difficulties in a systematic manner. These models allow to build the learning process more effectively, flexibly and in accordance with the real economic environment. These models prioritize not only the theoretical assimilation of knowledge, but also their practical application and are reflected in the table below:

Table1.

Innovative teaching models in higher economic education

No.	Teaching Model	Brief Description	Example of Application in Economics Majors	Advantages	Possible Challenges
1	Project-Based Learning	Students work on real-world problems	Preparing a business plan, analyzing an investment project	Develops analytical thinking and teamwork skills	Requires time and resources
2	Problem-Based Learning	Teaching focused on solving a specific economic problem	Assessing market risks	Develops critical thinking and decision-making skills	Requires high methodological competence from the instructor
3	Blended Learning Model	Combination of traditional and online instruction	Lecture + online financial simulation	Increases flexibility and accessibility	Requires technical infrastructure
4	Digital Simulation and Modeling	Practical training in a virtual economic environment	Stock market simulators, financial models	Strengthens practical skills	Software costs may be high

5	Case Study Method	Analysis of real economic events	Analysis of companies' financial statements	Enables practical application of theoretical knowledge	Selecting up-to-date materials may be difficult
6	Flipped Classroom	Theoretical material studied at home, practical work done in class	Watching online lectures, solving financial calculations in class	Creates an active learning environment	Depends on students' level of responsibility
7	Data-Driven Learning	Working with statistical and analytical tools	Economic analysis using Excel, SPSS, Power BI	Enhances digital competencies	Possible lack of technical skills
8	University–Business Integration	Internship and cooperation with the real sector	Internship programs in audit companies	Strengthens adaptation to the labor market	Partnership opportunities may be limited
9	Startup and incubation model	Entrepreneurship education	Student startup projects	Entrepreneurial skills	Lack of funding and mentorship
10	AI-based education	Smart education systems	Automated assessment and analytics	Real-time feedback	Ethical and technical risks

Sourse: [2, p. 10-15]; [14, p. 20-25]; [20, p. 230-232]

The table data systematically reflects modern teaching models that can be applied in economic specialties. These teaching models are a modern approach aimed at improving the quality of economic education, and their application serves not only to provide students with theoretical knowledge, but also to gain practical skills, analytical thinking and digital competencies. In particula, project-based, problem-based and case-study methods ensure the integration of economic knowledge with real sector problems. Digital simulation, data-based learning and artificial intelligence-based systems strengthen the formation of analytical and technological competencies required by the digital economy. University-business cooperation and startup models affect the integration of higher education into the innovation ecosystem [20, p. 230]. With the right methodological approach, these models can contribute to the formation of students as active participants, not passive listeners, and the preparation of more effective and competitive personnel in economic specialties. The table below systematically presents an innovative approach to international best practices, their main features, and their impact on the development of economic education:

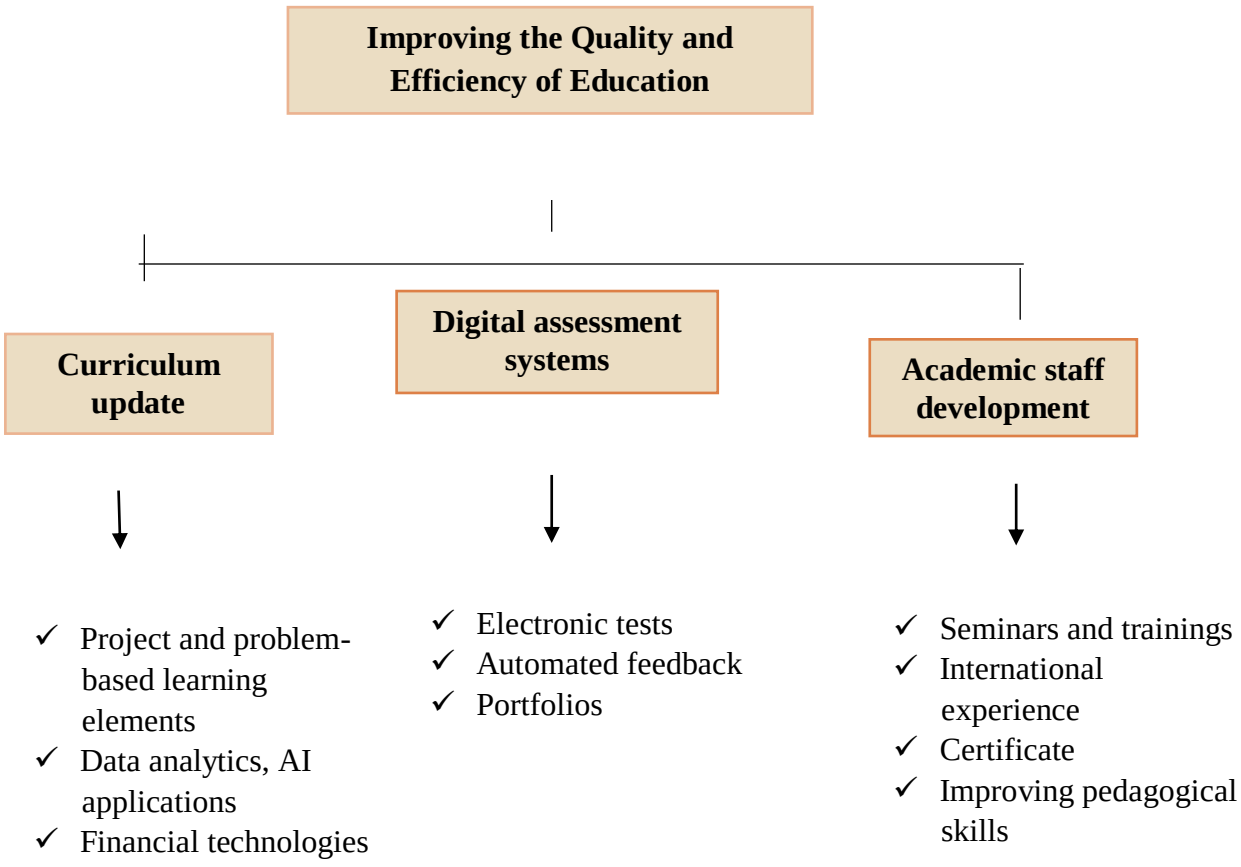
Table. The Impact and Main Features of International Best Practices on Economic Education

University	**Country**	**Innovative Approach**	**Key Feature**	**Impact on Economic Education**
Massachusetts Institute of Technology (MIT)	United States	Action Learning and startup ecosystem	Teamwork on real business challenges at MIT Sloan	Develops entrepreneurship and innovation skills
Harvard University (Harvard Business	United States	Case-study method	In-depth analysis of real company	Enhances strategic decision-making skills

School)			cases	
London School of Economics and Political Science (LSE)	United Kingdom	Data-driven economic education	Economic analysis using big data	Strengthens analytical and statistical competencies
National University of Singapore (NUS)	Singapore	Digital and hybrid education model	Online platforms combined with industry partnerships	Prepares graduates for the global labor market
University of Pennsylvania (Wharton School)	United States	Financial simulation laboratories	Real-time market modeling	Improves practical finance skills
University of Oxford	United Kingdom	Research-based economic education	Academic research combined with applied analysis	Develops scientific and analytical thinking
Tsinghua University	China	Digital economy and AI integration	AI-based economic modeling	Advances techno-economic competencies
INSEAD	France/Singapore	Global MBA and multicultural model	International business simulations	Builds global management skills

Sourse: [5]; [6]; [7]; [10]; [11]; [12]; [15]; [17]; [18]; [19]

Practical orientation, digital transformation, university-business cooperation, global integration, entrepreneurial environment are common features of the experience of these universities. Working with real company and market data, data analytics, application of artificial intelligence and simulation tools, industrial partnerships and internship programs, international student and faculty mobility, startup incubators and innovation centers are considered the main directions for universities. Looking at the best world practices, it becomes clear that the main condition for success in higher economic education is not only the application of technology, but also strategic management, academic independence and a culture of innovation. The adaptation of these models can make a significant contribution to improving quality and competitiveness in the national higher education system. The concept of quality in higher education is multidimensional and requires the assessment of results with measurable indicators. The approach presented below forms an innovative and integrative model towards the modernization of higher economic education (Figure 1):



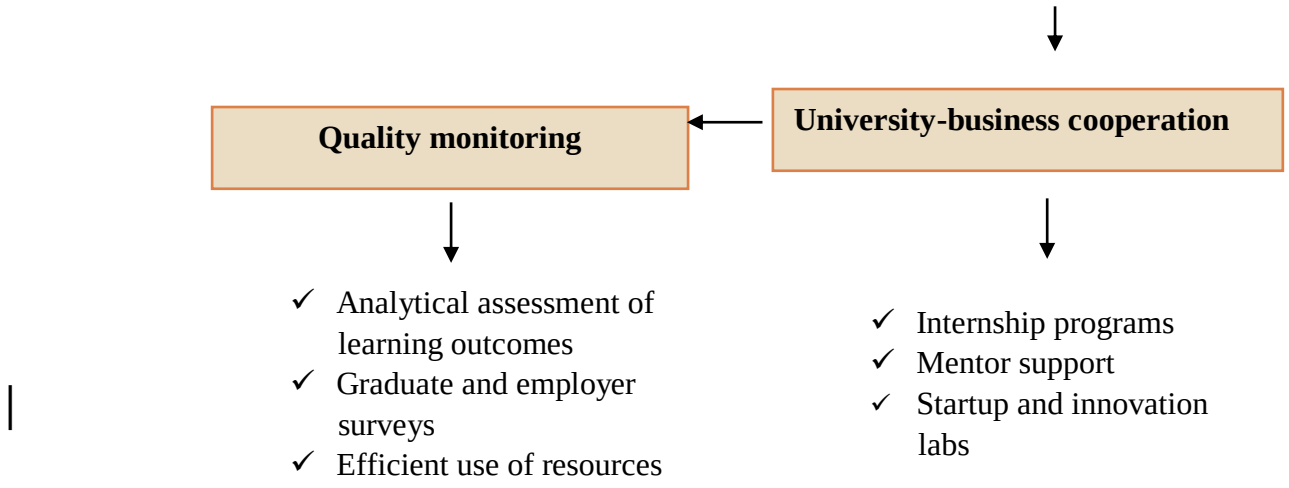


Figure 2. Innovative model of higher economic education.

Source: [14, p.18]; [3, p.7]

It is also clear from the established model that increasing the quality and efficiency of education in higher economic education is ensured by several interrelated mechanisms. Updating curricula, introducing digital and institutional mechanisms strengthen the educational process both in terms of content and management. The introduction of project and problem-based learning, data analytics, artificial intelligence and financial technologies into programs develops students' decision-making and innovative approach skills. This makes them more flexible in adapting to the requirements of the constantly changing and updated labor market. Knowledge is measured more transparently and objectively through digital assessment systems. Electronic tests, portfolios and automated feedback mechanisms allow for operational analysis of results, determine individual development directions. Continuous professional development of academic staff plays an important role in the quality of teaching. Seminars, trainings, international exchange of experience update teachers' pedagogical approaches, strengthen digital skills and accelerate the application of innovative methods. Internship programs, mentoring mechanisms, startup and innovation laboratories during university-business cooperation provide early familiarization of students with the real work environment, facilitate their professional adaptation [8, 3]. Analytical assessment of learning outcomes, continuous monitoring

of quality in studying employee opinions play a key role. This approach creates conditions for more efficient allocation of resources, strategic decision-making and continuous improvement of the educational process. As a result, the application of the above mechanisms serves to improve the quality of higher economic education, prepare competitive graduates and increase the overall efficiency of education. In the modern era, the higher economic education system should not be satisfied with only the transfer of theoretical knowledge, but should form analytical thinking, digital literacy and practical skills in students.

Problems encountered and directions for their solution

The digital transformation process is accompanied by difficulties such as the weakness of the material and technical base, limited financial resources, adaptation problems of teachers and students, and information security risks. Eliminating these problems requires the development of strategic programs at the state level, increasing investments, and the application of continuous monitoring mechanisms [4, p.22].

The future development directions of higher economic education, digitalization, analytical management, and flexible learning models, act as the main pillars of the transformation.

In the future, the development of higher economic education can be predicted in the following directions:

➢ An artificial intelligence-based personalized teaching approach will promptly identify learning gaps, ensure the preparation of individual development plans, and increase result-orientation.

➢ Education management based on big data analysis will serve the optimal allocation of resources and continuous improvement of programs.

➢ Integration with international digital platforms will expand global knowledge exchange, increase the competitiveness of higher education institutions through joint programs, dual diploma opportunities, and online course collaborations, and facilitate students' access to the international academic environment.

➢ Strengthening the concept of lifelong learning will ensure continuous updating of the knowledge and skills of specialists, short-term certificate programs, module-

based courses and flexible teaching formats will create a closer connection with the labor market.

The systematic implementation of these directions will not only increase the sustainability of higher economic education, but also create the basis for the formation of an innovative and globally competitive education model.

Conclusion. The analysis shows that the digital economy considers structural and content changes in the higher education system to be important. The application of innovative teaching models plays an important role in improving the quality of education in economic specialties, adapting graduates to the labor market and forming competitive human capital. For this, the digital transformation strategy should be implemented in higher education institutions in a phased manner. The main priorities of this process are the modernization of curricula, strengthening technological infrastructure and developing human resources.

All of the above shows that in the conditions of the digital economy, innovative teaching models can be considered a decisive factor in improving the quality and efficiency indicators of higher education.

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