UDC 336.648
DOI: 10.15587/1729-4061.2025.333507

INNOVATIVE APPROACHES TO PROJECT FINANCING MANAGEMENT IN THE CONTEXT OF DIGITALIZATION: MICRO- AND MACRO-ASPECTS

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This study's object is innovative approaches to project finance management in the context of digitalization. The need for the study relates to solving the issue of insufficient adaptation of conventional approaches to project finance management to the conditions of digitalization, which reduces the efficiency of project decision-making and, as a result, the overall level of competitiveness.

The study proves that conventional approaches to project finance management are being transformed under the influence of digitalization. A comparative characteristic of traditional and innovative approaches to project finance management is given. The advantages and disadvantages of innovative approaches to project finance management associated with the digitalization of this process have been highlighted. The macro- and micro-aspects of innovative approaches to project finance management in the context of digitalization have been characterized.

It was established that at the macro level, innovative approaches to project finance management are influenced by global trends in the evolution of the fintech industry. At the micro level, the implementation of innovative approaches to project finance management is associated with the active use of digital technologies. In order to determine the effectiveness of managing the process under study, a system model of innovative project finance in the context of digitalization was built. A forecast for the development of innovative project finance management over 2026–2030 has been prepared according to the basic, optimistic, and pessimistic scenarios.

The practical significance of the results is their use in the development and selection of effective strategies for innovative project finance in the context of digitalization. Quantitative assessment of the research results is meant to improve the conditions for achieving the planned indicators

Keywords: project finance management, digitalization, digital currencies, artificial intelligence, open banking

Received 04.04.2025
Received in revised form 23.05.2025
Accepted 10.06.2025
Published 30.06.2025

How to Cite: *Radynskyy, S., Ratynskiy, V., Krupka, A., Shpylyk, S., Pohrishchuk, H., Dobizha, N., Zarichna, N., Pysmennyi, V., Piniak, I., Burlitska, O. (2025). Innovative approaches to project financing management in the context of digitalization: micro- and macro-aspects. Eastern-European Journal of Enterprise Technologies, 3 (13 (135)), 87–95. https://doi.org/10.15587/1729-4061.2025.333507*

1. Introduction

Global digitalization is causing revolutionary transformations in all domains of socio-economic activity, without exception. Significant changes associated with the use of digital technologies also affect the financial sector, which changes conventional approaches to financing. Research proves that the need to use digital technologies in the financial sector continues to grow. Global trends in digitalization actively influence national fintech industries, which adapt to global

trends. Owing to digital technologies, new opportunities for project finance management are opening up. In particular, such digital technologies as artificial intelligence, blockchain, open banking, crowdfunding are being introduced into financial planning management processes. This makes it possible to significantly increase the efficiency of the project finance management process. Most experts are inclined to believe that innovative approaches to project finance management will continue to transform under the influence of digital technologies.

Despite the advantages, the digitalization of project finance has a number of problems associated with a low level of cybersecurity, lack of regulatory support, and low digital literacy of financial sector participants. In addition, the issues of adapting individual digital technologies to the specific conditions of the domestic financial market remain insufficiently researched. This requires the development of adapted models and scenarios for devising innovative project finance management in the context of digitalization.

In this regard, scientific research on project finance management in the context of digitalization is important. The results of such research are of scientific and practical significance and provide an opportunity to form the basis for the use of modern approaches to project finance management in the context of digitalization, taking into account micro- and macro-aspects. This could ensure the innovative development of both the financial sector and the country's economy as a whole. Therefore, research to devise a model of the impact of digitalization on approaches to project finance management, taking into account micro- and macro-aspects, is relevant.

2. Literature review and problem statement

In the context of digitalization, approaches and directions to enterprise investments are transformed. Thus, in work [1], potential mechanisms by which digital transformation affects corporate inefficient investments are considered. In particular, the results indicate that digital transformation effectively restrains insufficient investments, mitigating the pressure of financial constraints, and prevents excessive investments through revenue management. Digital transformation enables enterprises to optimize investment decisions. At the same time, it is worth noting that digital transformation is associated with a large number of evaluation indicators, most of which are not investigated in the paper. The likely reason is difficulties associated with additional research and verification of indicators for assessing the impact of digitalization on the effectiveness of financial investments at different stages of project implementation. An option for overcoming the relevant difficulties is in-depth research aimed at identifying the relationship between the effectiveness of technological innovations and digital finance in corporations.

This is the approach used in [2], which studies the impact of digital transformation on corporate growth efficiency using a two-way fixed effect model. Based on the fact that digital transformation promotes corporate growth, the authors propose to consider the configuration of the scale of the enterprise's capital and financing methods in the process of finding positive consequences of the digital transformation of the enterprise. In addition, the relationship between digital transformation and enterprise growth indicators was studied, and the role of different financing methods was compared. However, the authors do not pay enough attention to the impact of digital finance on the strategic value of enterprises. All this confirms that it is advisable to conduct a study such [3] that determines the impact of the evolution of digital finance on the value of new strategic enterprises. The development of digital finance revolutionizes the conventional financial model, constantly integrated with the real economy, and provides a new driving force for economic growth. A similar study, on the impact of the development of the digital economy on the efficiency of corporate investments, is conducted by the authors of [4]. The results of the study prove that stimulating the growth of the digital economy is a strategic choice in achieving innovative economic growth. In addition, it is also an important criterion for testing the path to new development models that remain underexplored.

This shortcoming is addressed in [5], which analyzes the evolution of digital revolution in two areas: fintech and entrepreneurship. It describes the key changes that digital technologies bring to transactions between government, individuals, and companies. The authors focus on changes associated with digitalization. However, the authors do not identify the innovative forms of financing studied in [6], as well as their impact on the transformation of the capital structure in the era of digital technologies. The rapid development of digital technologies and the dynamism of the external environment for business and investment lead to the emergence of new financing opportunities. Crowdfunding, peer-to-peer loans, and other innovative tools are alternatives to conventional forms of financing. The paper examines how these innovations are changing approaches to managing companies' capital. However, the challenges associated with new approaches, in particular the need for regulatory regulation and the issue of increasing security, are not sufficiently explored.

This limitation is addressed by the authors of [7] who explore in depth the opportunities and challenges associated with digitalization. Digitalization requires organizations to undergo strategic transformation in order to remain resilient. The results of the study demonstrate that crowdfunding mediates between digital orientation and resilience. In addition, business model innovation consistently establishes a link between digital orientation, crowdfunding, and resilience. In addition, digital organizational culture moderates the link between strategic digital orientation, business model transformation, and crowdfunding.

Work [8] considers the issues of crowdfunding for business lending as an innovative financing tool for small and medium-sized enterprises, which is particularly useful in vulnerable and risky markets. The focus of the study is on fintech platforms in the Italian credit market. The study has certain limitations, which are mainly related to the sources of information provided directly by crowdfunding platforms for business lending. This shortcoming is eliminated in work [9], the main goal of which is to construct a comprehensive decision support model for financing startup projects by venture capital funds on a crowdfunding platform. The model is aimed at supporting decision-making processes by venture capital funds regarding the financing of expensive startup projects on crowdfunding platforms. The authors argue that such a decision support model makes it impossible for experts of the crowdfunding platform to make biased conclusions regarding the evaluation of startup projects, and venture funds manage the decision support process at all stages of the evaluation. The results of the study were tested on the example of assessing a real startup project to make a decision

on its financing by a venture fund. It is worth noting that the studies conducted are heterogeneous, both in terms of the process and the results obtained, which is primarily due to their regional focus.

Study [10] examines the role of digital finance in eliminating regional barriers to capital flows and promoting the creation of a single market. The authors propose two potential mechanisms by which digital finance can influence the level of interregional investment of listed companies. First, by reducing the degree of segmentation of capital markets between regions, and second, by reducing firms' capital expenditures and financial constraints. The study demonstrates that in regions with stricter financial regulation, digital finance is better at increasing capital flows. This provides new prospects for the development of the real economy and promotes capital mobility. At the same time, financial regulation can lead to the loss of local protectionism, which can be an obstacle to increasing the mobility of investment resources and the further development of certain sectors of the economy.

The authors of [11] also studied the impact of the development of regional digital finance on the constraints on enterprise financing and found that this could significantly alleviate the constraints on enterprise financing. In addition, it will be possible to partially correct the discrimination in the size of conventional financing, as well as the inconsistency of financial resources. The study selected the consumer price index as the main characteristic of the level of constraints on enterprise financing, which makes it impossible to widely use its results.

Digital transformation has become a key path to achieving sustainable development for many companies. Most studies in this area prove that digital transformation plays a significant role in alleviating financial constraints, resulting in a favorable external environment for business. Thus, in [12] it is emphasized that the use of digital finance to facilitate the implementation of environmental, social, and governance tasks by a company is the key to achieving sustainable development. The results show that digital finance has a significant and positive impact on the environmental, social, and governance tasks of companies. This, in turn, promotes environmental innovation and creates competitive advantages. The study uses analytical data from companies listed on the Chinese stock exchange during 2010–2019, as well as the China Digital Financial Inclusion Index to determine the impact of digital finance on company performance indicators. This indicates a certain limitation of its results, associated with regional characteristics.

Despite the numerous developments on the role of digital finance in increasing the number of innovations, research on how it affects the quality of innovations remains limited. The elimination of this deficiency is work [13], which examines the causal relationship between digital finance and the innovation performance of enterprises. The authors provide convincing evidence that digital finance has a positive effect on innovation productivity, covering both quantitative and qualitative aspects. At the same time, using the approach proposed in the study, the impact of digital finance on the innovation performance of manufacturing enterprises is assessed, which cannot always be extended to other areas of activity.

Work [14] examines the financing mechanisms and benefits of technology-oriented small and medium-sized enterprises in the context of digitalization. The main goal is to identify factors influencing decisions on the choice of financing options in a dynamic digital environment. The authors identify key determinants of decisions and use machine learning algorithms to predict financial benefits with high accuracy. The key innovation of the study is the integration of conventional panel regression analysis and machine learning methods, which made it possible to bridge the gap between digital transformation and financing strategies. The study has a significant drawback related to the sample size, which is limited to SMEs listed on the NEEQ exchange. In addition, insufficient attention is paid to the dynamic changes that determine innovative approaches to financing over time and in an international context.

Study [15] examines the impact of technology on the financial management of infrastructure projects, including issues such as digitization, financial technology, and intelligent technologies. In addition, stakeholders are provided with information on navigating the evolving environment and optimizing financial management using digital technologies. Given the dynamic pace of change, the study results do not sufficiently take into account new trends and developments, which makes it difficult to comprehensively synthesize and integrate understanding of different perspectives on the digital transformation of finance.

The authors of study [16] note that digitalization creates new financial channels that complement conventional ones, but can raise concerns about fraud, cybersecurity. Artificial intelligence and machine learning are changing the way traditional investors work and help detect fraud. In this regard, the ways in which conventional investors work related to digital project financing are changing. Despite the value of the research, insufficient attention has been paid to the operational issues of investing in the context of large-scale implementation of big data and machine learning algorithms.

Our review of the literature [1–16] demonstrates that each paper considers the processes of digitalization of finance mainly in terms of individual countries, industries, or types of activity. In addition, most studies offer methods and models of decision-making using data that have lost relevance due to the dynamism of the development of digital technologies of project finance.

In this regard, there is a need for a systematic study of the components of the decision-making process within the framework of project finance in transformational economies under the influence of digitalization. As a result, this will provide an opportunity to form a basis for increasing the efficiency of the project finance management process.

3. The aim and objectives of the study

The purpose of our work is to determine the impact of digitalization on approaches to project finance management in micro- and macro-aspects. This will ensure the effectiveness of project finance areas in a developed digital environment, increasing the level of competitiveness of business entities.

To achieve this goal, it is necessary to solve a number of tasks:

– to study the theoretical and methodological aspects of project finance under the influence of digitalization;

– to study the macro- and micro-aspects of innovative approaches to project finance management in the context of digitalization;

– to build a system model of innovative project finance in the context of digitalization;

– to forecast the development of innovative project finance in the context of digitalization.

4. The study materials and methods

The object of our study is innovative approaches to project finance management in the context of digitalization. The study hypothesizes that there is a close relationship between digitalization and transformational changes in approaches to project finance management.

The study of the differences between conventional and innovative approaches to project finance management was carried out by the method of comparative analysis. To identify the influence of macro- and micro-aspects on innovative approaches to project finance management in the context of digitalization, statistical, in particular index, methods of tabular and graphical analysis were used. The model of innovative project finance in the context of digitalization was built based on a systemic approach, which made it possible to determine inputs, transformation processes, and outputs. Forecasts of the evolution of innovative project finance in the context of digitalization over 2026–2030 were made based on the scenario method, identifying the characteristics of the basic, optimistic, and pessimistic scenarios. For analytical forecasting of the values of probability of occurrence of the corresponding scenarios, the Pareto principle was used. Review of the literary was carried out based on the method of bibliographic research. To formulate the conclusions of the paper, the methods of theoretical generalization, analysis and synthesis, as well as the abstract-logical method were used.

5. Results of the study of approaches to project finance management in the context of digitalization

5. 1. Investigating the theoretical and methodological aspects of project finance under the influence of digitalization

Project finance is one of the ways to attract resources for the implementation of complex and large-scale projects. The purpose of project finance is to provide financial resources for important socio-economic projects and initiatives. A distinctive feature of project finance is the allocation of funds for a specific purpose, which makes it possible to avoid the risks of non-fulfillment of project tasks [17].

Project finance has significant advantages compared to other mechanisms for attracting resources. First, project finance makes it possible to expand and modernize the infrastructure. Second, project finance ensures sustainability and innovation. Third, the implementation of project finance reduces risks by insuring and hedging them. Fourth, in terms of project finance, large amounts of private investment are attracted. Fifth, project financing is characterized by a flexible financial structure. Sixth, owing to project financing, it has become possible to implement long-term large projects that are associated with significant costs at the initial stage. Seventh, project financing has a clear control and monitoring system, which significantly increases the efficiency of project management [17].

In the context of digitalization, approaches to project financing management are being transformed, new opportunities for attracting financial sources to achieve strategic project goals appear. Table 1 gives a comparative description of conventional and innovative approaches to project financing management.

It is worth noting that conventional approaches to project finance management are associated with stability and risk minimization. At the same time, they are characterized by high time and financial costs. In contrast, innovative digital approaches to project finance management are faster, more flexible, accessible, and transparent. A high level of cybersecurity is ensured by digital data protection, security certification, which requires a high level of digital financial literacy of participants.

Table 1

Comparative characteristics of conventional and innovative approaches to project finance management

Comparative criteria	Traditional approaches	Innovative approaches
Sources of project financing	Bank loans, public funding	Crowdfunding, cryptocurrencies, Fintech IT platform, venture funds
The speed of decision making	Low	High
Project evaluation procedure	Expert evaluation	Automated evaluation
Items of the risk management system	Risk insurance, warranty conditions	Artificial intelligence
The degree of transparency of projected financing	Limited	Full
Administrative expenses	High	Low
The level of inclusiveness of pro -funding processes	Limited	Wide
The level of massive processes of pro-funding processes	Complex	Light
The speed of project funding	Months, years	Days, weeks
Cybersecurity level	Low	High

Note: compiled on the basis of data from [17].

5. 2. Research on macro- and micro-aspects of innovative approaches to project finance management in the context of digitalization

At the macro level, innovative approaches to project finance management are primarily influenced by global trends in the evolution of the fintech industry, which open up new institutional opportunities, in particular, in international financing. No less important is the state policy in the field of digitalization, which determines the active use of digital technologies, resulting in the transformation of the financial infrastructure.

The dynamics of the evolution of the global fintech industry demonstrate negative trends, in particular, there has been a significant reduction in investment volumes – from USD 239.8 billion in 2021 to USD 95.6 billion in 2024. At the same time, the number of deals has almost halved – from 8392 in 2021 to 4639 in 2024 [18]. The reasons for the significant decline in fintech investment are related to current macroeconomic challenges, geopolitical conflicts and tensions, as well as high levels of uncertainty. The decline is observed in all areas of investment activity in the fintech sector – venture capital (VC), M&A, and private equity (PE). Table 2 gives basic indicators of investment activity in the global fintech industry in 2020–2024.

According to the data in Table 2, growth indices of investment activity indicators in the global fintech industry in 2021–2024 were calculated (Fig. 1).

Table 2

Investment activity in the global fintech industry in 2020–2024, USD billion

Indicators of investment activity	2020	2021	2022	2023	2024
Global investment activity in the fintech sector	123.3	239.8	202.9	119.9	95.6
Investments of venture capital funds	45.7	120.8	89.9	49.2	43.4
The cost of M&A deals	74.1	104.5	102.9	60.2	49.6
Direct private investment	3.5	14.5	10.1	10.5	2.6

Note: compiled on the basis of data from [18].

The lowest growth indices of investment activity in the global fintech industry were observed in 2023 – the index values are within 0.55–0.6, with the exception of direct private investments, which show an increase. If we take into account the indicator of global investment activity in the fintech sector, then since 2022 there has been a significant decrease – the indices are 0.846 in 2022, 0.591 in 2023, and 0.797 in 2024, compared to the previous period.

In the second half of 2024, positive trends were observed in the global fintech industry, which resulted in a noticeable increase in investments in this sector, increased consolidated efforts of participants to defensive strategies and ensure asset liquidity [18].

Despite negative global trends, the fintech industry in Ukraine demonstrated active development in 2024, in particular, the number of participants increased by 20% and the capitalization of the fintech sector increased by 18%. As of 2024, there were more than 250 companies in Ukraine, whose areas of activity are mobile banking, digital payments, online lending, and blockchain solutions [19]. That was made possible owing to the active support of international partners, as well as state initiatives that have an innovation focus. The structure of the areas of activity of fintech companies in Ukraine is shown in Fig. 3.

Among fintech companies, the most popular area is technology and infrastructure (36%), followed by payments and money transfers (15%), and consumer lending (7%).

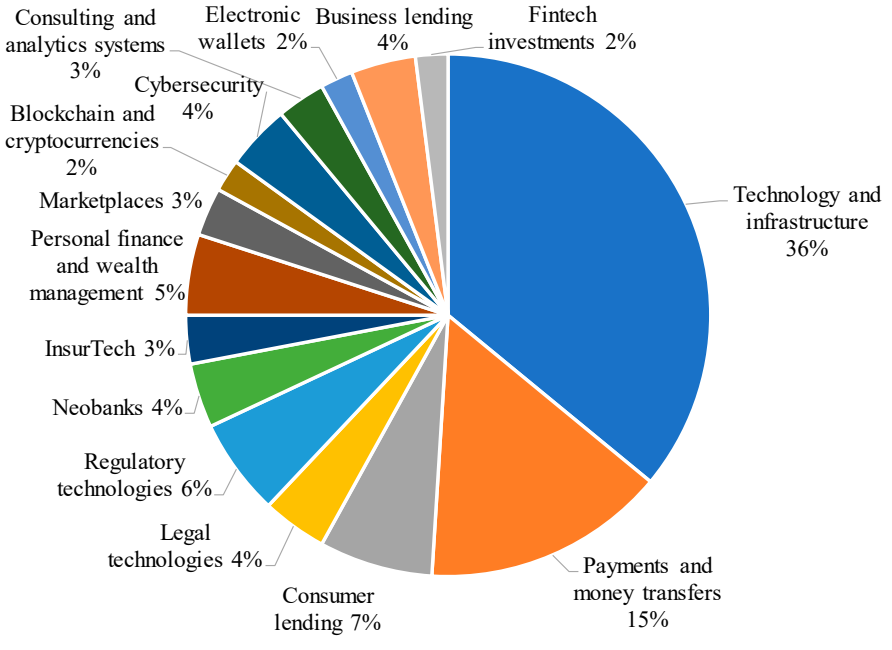

Fig. 2. Areas of activity of fintech companies in Ukraine in 2024
Note: compiled on the basis of data from [19]

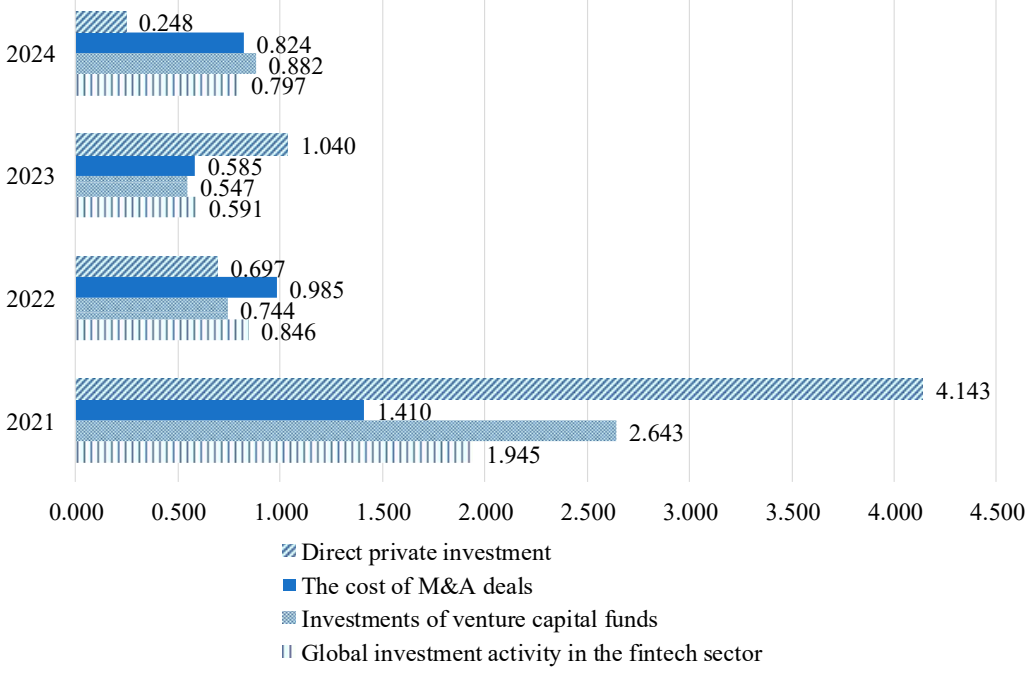

Fig. 1. Growth indices of investment activity indicators in the global fintech industry in 2021–2024
Note: compiled on the basis of data from [18]

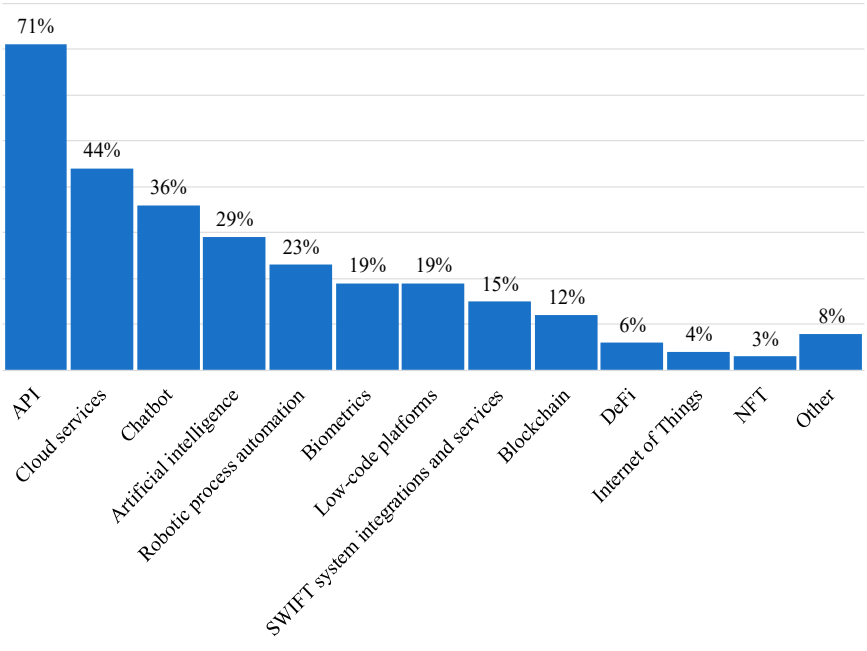

Fig. 3. Key technologies used by fintech companies in Ukraine in 2024
Note: compiled on the basis of data from [19]

Digital technologies are being implemented to improve the efficiency of project finance management. Artificial intelligence technologies are improving the risk assessment procedure. Blockchain technologies enable reliable data storage and increase the transparency of financial transactions. The basic technologies used by fintech companies in Ukraine are shown in Fig. 3.

In addition, we should note positive legislative changes to increase the level of transparency and security of fintech industry participants. Thus, in 2024, issues related to the introduction of digital currencies and tokens were regulated in the legislative aspect.

The main challenges remaining for the industry are strengthening cybersecurity and compliance with international data privacy standards. It is important for Ukrainian fintech companies to meet the requirements of the international market in order to continue to attract foreign investors and expand abroad. The positive dynamics of 2024 indicate the readiness of the Ukrainian fintech market for further innovation and sustainable development.

5. 3. Constructing a system model of innovative project financing in the context of digitalization

Project financing in the context of digitalization is a complex transformation process, which is characterized by innovative features. The degree of balance of tasks, resources, and factor conditions of influence affects the achievement of the project result. Accordingly, it is important to focus on representing innovative project financing in the form of a system model, which would make it possible to focus mainly on target benchmarks (Fig. 4).

In our system model, the "input" parameters involve the use of digital technologies that are implemented in the process of innovative project financing. Artificial intelligence technologies allow for the automation of project risk management. Open banking provides an open software interface, promotes the emergence of new digital financial services. Owing to the blockchain, the degree of transparency and security of financial transactions increases. The introduction of digital currency contributes to the state regulation of digital transactions. "Green" financing is focused on "green" projects. Cybersecurity protects financial data.

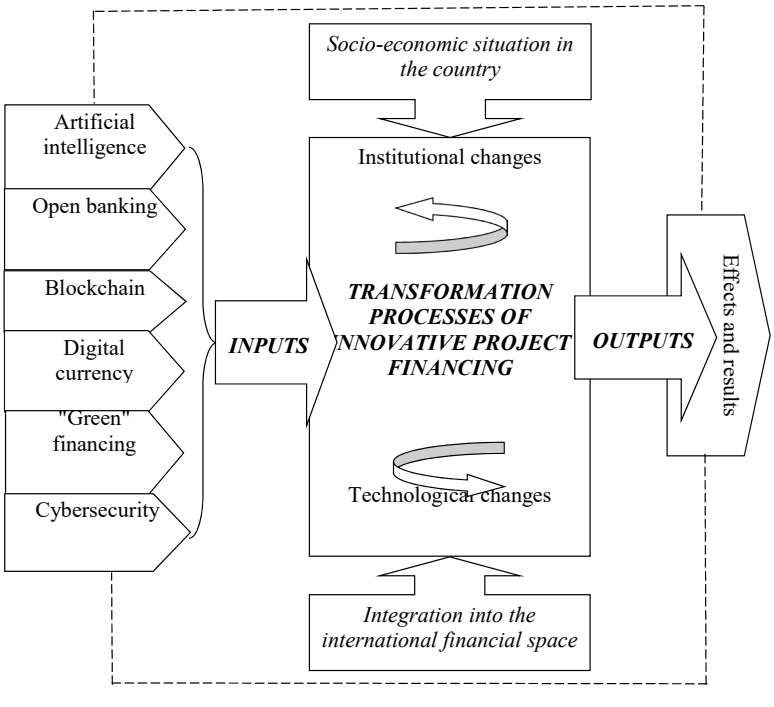

Fig. 4. System model of innovative project financing in the context of digitalization
Note: compiled on the basis of data from [20]

Transformational processes in the system model of innovative project financing occur under the influence of institu-

tional and technological changes. These include, first of all, the improvement of the legislative framework, innovative modernization of banking and financial institutions, the emergence of new digital platforms and financial products, an increase in the level of digital literacy of business, the formation and development of digital culture.

"Outputs" in the system model are represented in the form of results and effects of project financing in the context of digitalization. The results are related to the expansion of sources of capital attraction and the increase in the availability of financing for innovative projects. No less important effects are the increase in the level of transparency and security of financial transactions, as well as the effectiveness of project risk management. Our system model of innovative project financing demonstrates that global digital trends are a catalyst for transformational changes. As a result, the methods of managing project financing are radically changing, and new opportunities are opening up for business and the state.

5. 4. Forecasting the development of innovative project financing in the context of digitalization

In early 2025, the Ukrainian Association of Fintech and Innovation Companies conducted a study to identify the most relevant trends that would prevail in the near future. The results show that the most promising areas of the domestic fintech industry are artificial intelligence, open banking, and cybersecurity (Fig. 5).

Taking into account the above trends, as well as the conditions that have developed at the macro and micro levels, Table 3 gives scenarios for the development of innovative project finance management in Ukraine over the next five years.

The baseline scenario for the development of innovative project finance management in Ukraine in the next five years will be characterized by a stable increase in digitalization. According to the Pareto distribution rule, the probability of this scenario will be 80%. The optimistic scenario for the development of innovative project finance management assumes accelerated growth in digitalization. The pessimistic scenario for the development of innovative project finance management is associated with slowdowns, risks, and delays. The probabilities of the optimistic and pessimistic scenarios are predicted at 10%. If active digitalization continues, as well as international support, in particular of the financial sector, the probability of the optimistic scenario may increase. As a result, the country will have a great chance of becoming one of the leaders of financial innovations in the European space.

Table 3

Scenarios for the development of innovative project finance management in Ukraine over 2026–2030

Year / Scenario	2026–2027	2028–2029	2030
Basic (80% probability)	Average share of digital financing. Introduction of a digital hryvnia	The gradual introduction of open banking and artificial intelligence. The growing use of Blockchain	Average level of cybersecurity. Gradual integration of digital technologies into project financing
Optimistic (10% probability)	Active implementation of open banking and mass use of artificial intelligence. High share of digital financing	High level of use of Blockchain in investment projects. Active use of electronic hryvnia in business settlements	High level of cyber security. A greater share of project financing is integrated into digital platforms. Leadership in fintech innovation
Pessimistic (10% probability)	Low share of digital financing. Fintech startups' outflow due to inappropriate conditions	Slow adoption of open banking and artificial intelligence. Low adoption of Blockchain	Gradual introduction of digital hryvnia. Low level of cyber security

Note: compiled on the basis of data from [18–20].

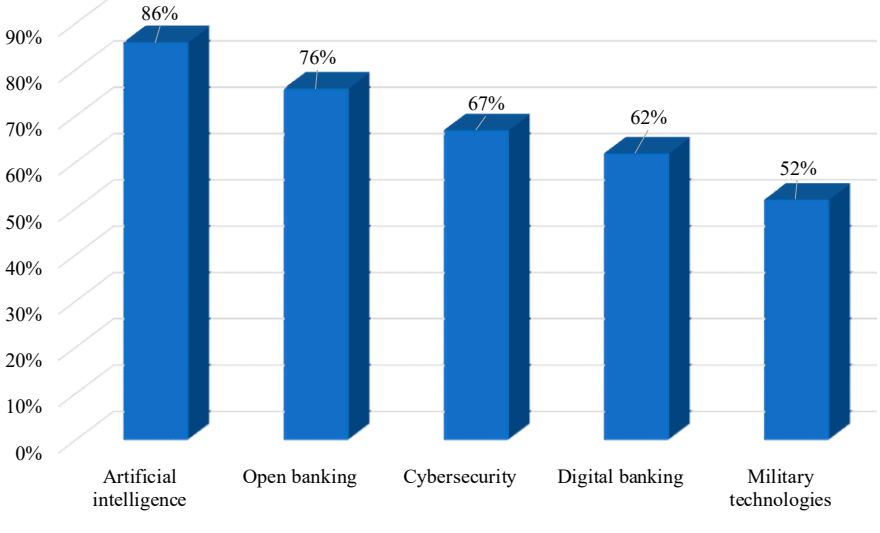

Fig. 5. Promising directions for the evolution of the fintech industry in Ukraine over 2026–2030

Note: compiled on the basis of data from [19]

6. Discussion of results based on studying the approaches to project finance management in the context of digitalization

The study of approaches to project finance management indicates significant transformational changes in the context of digitalization.

The rapid development of digital technologies has changed conventional approaches to project finance, which were characterized by long-term assessment and decision-making procedures, low transparency, and security (Table 1). Innovative approaches to project finance have a number of significant advantages compared to conventional ones. Firstly, digitalization automates the processes of data collection, analysis,

and storage. Secondly, alternative sources of financing appear, which make it possible to attract additional financial resources. Thirdly, openness and transparency increase, which makes it possible to monitor the movement of financial flows in real time.

In addition, the study notes that project finance is directly related to global trends in the evolution of the fintech industry. Investment activity in the global fintech industry in 2020–2024 (Table 2) demonstrates negative dynamics (Fig. 1). However, participants in the domestic fintech industry were able to adapt to external and internal challenges. This is evidenced by the expansion of the scope of activity (Fig. 2) and the active implementation of digital technologies by fintech companies (Fig. 3).

The results and effects of the proposed system model of innovative project financing (Fig. 4) are directly dependent on the implementation of digital technologies, as well as institutional and technological changes. Unlike [1–16], where the relationship between the development of digital technologies and the financing process is studied in a global aspect, the model of innovative project financing makes it possible to take into account the prerequisites occurring at the micro and macro levels.

According to the results of our study, a forecast was prepared for the development of innovative project financing management in Ukraine over 2026–2030 according to the basic, optimistic, and pessimistic scenarios (Table 3). The predicted scenarios for the development of innovative project financing management are the basis for substantiating management decisions under the conditions of digitalization of the financial sector in Ukraine.

Our results make it possible to adapt the process of project financing management under domestic conditions to the influence of global digital trends.

The practical value of the research is primarily related to the possibilities of active use of innovative approaches in project finance management, which significantly increases its efficiency. It is worth highlighting the limitations of the implementation of innovative approaches in project finance management, which consist in the need to improve the regulatory framework for the digitalization of this process, as well as the associated high level of financial fraud. In addition, worth noting is the low level of digital literacy of people, including the lack of highly qualified specialists in the digitalization of the financial sector.

Research prospects are directed towards the development and implementation of integrated digital platforms in the process of managing financial project finance, which are characterized by a high level of cybersecurity. No less important is to devise scenarios for the development of the digital hryvnia, as well as research into the effects of further integration of artificial intelligence and other digital technologies into the process of managing project finance.

7. Conclusions

1. As a result of our study on the theoretical and methodological aspects of project financing, it was found that project financing has a number of significant advantages, as a result of which the efficiency of project management increases. It was determined that the transformation of approaches to financial planning management creates additional financing opportunities under conditions of limited resources. A comparative characteristic of conventional and innovative approaches to project financing management was carried out, which proves the important role of the latter in the context of digitalization and dynamic changes in the macro- and microenvironment.

2. Based on the study of macro aspects of innovative approaches to project financing management under conditions of digitalization, we found that the global trends in the evolution of the fintech industry in recent years are associated with negative trends. This is explained by the macroeconomic problems of the main participating countries, which leads to an increase in the level of uncertainty. As a result, the main indicators of investment activity of the global fintech industry in 2020–2024 deteriorated. Unlike global trends, the domestic fintech industry in 2024 was marked by active development. The main areas of activity and technologies used by fintech companies in Ukraine were identified. In addition, the challenges of the fintech industry in the context of digitalization were highlighted.

3. It was determined that project financing in the context of digitalization is transformed, acquiring signs of innovation. A system model was built to balance the input and output elements, as well as the transformation processes of project financing under the influence of digitalization. It was noted that the system model of innovative project financing in the context of digitalization opens up new opportunities for project targets. The parameters of "input", "output" have been identified, and the transformation processes of the proposed system model were characterized. It was established that the initial results of the system model are the expansion of sources of capital attraction, increased availability of financing, increased transparency, and security of financial transactions, as well as the effectiveness of project risk management.

4. The results allow us to make a forecast for the development of innovative project financing in the context of digitalization. Promising directions for the evolution of the fintech industry of Ukraine over 2026–2030 have been identified, among which artificial intelligence, open banking, and cybersecurity prevail. Basic, optimistic, and pessimistic scenarios for the development of innovative project finance management in Ukraine in the next five years have been proposed. It is established that in the case of further digitalization and international support of the financial sector, the likelihood of the development of an optimistic scenario increases and will provide an opportunity to actively introduce innovations into the process of project finance management.

Conflicts of interest

The authors declare that they have no conflicts of interest in relation to the current study, including financial, personal, authorship, or any other, that could affect the study, as well as the results reported in this paper.

Funding

The research is carried out by teachers of the Ivan Pulyuy Ternopil National Technical University within the framework of the project on the topic «Modern financial and economic systems of Ukraine: the latest trends in ensuring sustainability and effective management» at the expense of the state budget in accordance with the order of the Ministry of Education and Science of Ukraine No. 1572 dated

12/27/2023. «On approval of the list of projects of fundamental scientific research, applied scientific research, scientific and technical (experimental) developments, the performers of which are higher education institutions and scientific institutions belonging to the sphere of management of the Ministry of Education and Science of Ukraine, which passed competitive selection and the financing of which began from April 1, 2024 to March 31, 2027 from the State Budget of Ukraine» (registration number 0124U003478).

Data availability

The data will be provided upon reasonable request.

Use of artificial intelligence

The authors confirm that they did not use artificial intelligence technologies when creating the current work.

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