УДК 338.2:336.7

T. Kulinich,
PhD in Economics, Associate Professor of the Department of Managementof Organizations, Lviv Polytechnic National University
ORCID ID: https://orcid.org/0000-0003-0110-7080
H. Mykhalchynets,
PhD in Economics, Associate Professor, Senior Lecturer of the Department of Economics and Finance, Mukachevo State University
ORCID ID: https://orcid.org/0000-0003-1109-5896
S. Dzhereleiko,
PhD in Economics, Associate Professor, Associate Professor of the Department of Finance, Accounting and Auditing,
Khmelnytskyi Cooperative Trade and Economic Institute
ORCID ID: https://orcid.org/0000-0002-4018-2481

DOI: 10.32702/2306-6814.2025.13.133

RESEARCH ON THE DIGITAL FINANCIAL SPACE POTENTIAL FOR SUSTAINABLE DEVELOPMENT OF ENTERPRISES IN UKRAINE

Т. В. Кулініч,
к. е. н., доцент кафедри менеджменту організацій, Національний університет "Львівська політехніка"
Г. Т. Михальчинець,
к. е. н., доцент, ст. викладач кафедри економіки та фінансів, Мукачівський державний університет
С. Д. Джерелейко,
к. е. н., доцент, доцент кафедри фінансів, обліку та аудиту, Хмельницький кооперативний торговельно-економічний інститут

ДОСЛІДЖЕННЯ ПОТЕНЦІАЛУ ЦИФРОВОГО ФІНАНСОВОГО ПРОСТОРУ ДЛЯ СТАЛОГО РОЗВИТКУ ПІДПРИЄМСТВ УКРАЇНИ

This article aims to provide a theoretical analysis of the processes involved in the formation, enhancement, and effective utilization of Ukraine's digital financial space potential in the context of ensuring the sustainable development of enterprises. The conducted research confirms that the formation, strengthening, and effective use of the digital financial space potential are key processes for ensuring the sustainable development of enterprises in Ukraine. A systemic understanding of the structure of these processes allows for a more holistic assessment of the digital financial space as a strategic resource for transforming the national business environment. The results of the study indicate that the formation of the digital financial space's potential is influenced by unique socio-economic, political, and security factors. The content of these processes encompasses the creation of appropriate technical infrastructure, the development of a regulatory and legal framework, the advancement of digital competencies, as well as the adaptation of digital financial solutions to the national context. It has been proven that strengthening the potential of the digital financial space requires systemic actions by the state, business, and civil society aimed at modernizing infrastructure, expanding digital literacy, improving legislation, and attracting investments in digital transformation. The content of these processes includes the formation of a flexible, transparent, and innovation-oriented financial ecosystem capable

of supporting the adaptability and competitiveness of enterprises. It is noted that the effective utilization of the digital financial space potential should occur through its strategic integration into the management and financial processes of the enterprise. The content of these processes includes technological implementation, revision of financial strategy, automation of key functions, risk management, use of digital analytics, and enhancement of financial transparency. Overall, the combination of three processes — formation, strengthening, and effective utilization — creates an integrated model of digital financial transformation for enterprises, which can serve as a driver for their sustainable development, particularly in the context of crisis challenges and the European integration vector of state policy.

Метою статті є теоретичний аналіз процесів формування, посилення та ефективного використання потенціалу цифрового фінансового простору України в контексті забезпечення сталого розвитку підприємств. Проведене дослідження підтверджує, що формування, посилення та ефективне використання потенціалу цифрового фінансового простору є ключовими процесами для забезпечення сталого розвитку підприємств в Україні. Системне розуміння структури цих процесів дає змогу цілісніше оцінити цифровий фінансовий простір як стратегічний ресурс трансформації національного бізнес-середовища. За результатами дослідження констатовано, що формування потенціалу цифрового фінансового простору відбувається під впливом унікальних соціально-економічних, політичних та безпекових чинників. Зміст цих процесів охоплює створення відповідної технічної інфраструктури, нормативно-правового середовища, розвиток цифрових компетенцій, а також адаптацію фінансових цифрових рішень до національного контексту. Доведено, що посилення потенціалу цифрового фінансового простору передбачає системні дії держави, бізнесу та громадянського суспільства, спрямовані на модернізацію інфраструктури, підвищення цифрової грамотності, вдосконалення законодавства та залучення інвестицій у цифрову трансформацію. Зміст цих процесів охоплює формування гнучкої, прозорої та інноваційно-орієнтованої фінансової екосистеми, здатної підтримувати адаптивність і конкурентоспроможність підприємств. Зазначено, що ефективне використання потенціалу цифрового фінансового простору має здійснюватися через його стратегічну інтеграцію в управлінські та фінансові процеси підприємства. Зміст цих процесів охоплює технологічне впровадження, перегляд фінансової стратегії, автоматизацію ключових функцій, управління ризиками, застосування цифрової аналітики та підвищення фінансової прозорості. Загалом, поєднання трьох процесів — формування, посилення та ефективного використання — створює цілісну модель цифрової трансформації фінансів підприємств, яка може виступати рушієм їхнього сталого розвитку, зокрема в умовах кризових викликів та євроінтеграційного вектора державної політики.

Key words: capacity building; sustainable development; enterprise; innovation-oriented financial ecosystem; lending; crowdfunding.

Ключові слова: формування потенціалу; сталий розвиток; підприємство; інноваційно-орієнтована фінансова екосистема, кредитування, краудфандинг.

PROBLEM STATEMENT

In the current context of global economic transformation, the digitalization of financial processes is becoming one of the key factors in ensuring the sustainable development of enterprises.

Firstly, digital technologies automate accounting, reporting, payments, risk management, and budgeting.

Secondly, thanks to digital platforms (such as P2P lending, crowdfunding, and open banking), small and medium-sized businesses gain access to capital without the involvement of traditional banks, which is especially important in countries with unstable banking systems, such as Ukraine. This reduces costs, increases decision-making speed, and minimizes the risk of human error.

Thirdly, digital financial tools promote greater transparency in financial flows, which reduces the level of corruption and facilitates the attraction of investors, including international ones.

Moreover, digital financial solutions as a whole enable enterprises to adapt more quickly to external changes (such as crises, war, or pandemics) through remote financial management, real-time analytics, and flexible financing models.

For Ukraine, which is actively integrating into the global economic space while simultaneously facing serious challenges related to russia's military aggression, economic instability, and the need for rapid business adaptation to uncertainty, the formation of an effective digital financial space becomes particularly relevant. Russia's military invasion of Ukraine has led to significant damage to the country's physical economic infrastructure-including banks, offices, logistics, and communications. As a result, digital solutions have become essential for partially replacing traditional financial channels. For instance, electronic payment systems, remote account management, and cloud-based accounting systems are becoming indispensable tools.

ANALYSIS OF RESEARCH AND PUBLICATIONS

Recently, the issue of electronic finance and its impact on the economy has attracted increased attention from researchers. An analysis of works by Ukrainian and international scholars highlights key aspects of digital finance development. Among them is the formation of the digital financial space, which encompasses internet banking, mobile payments, fintech platforms and services, and, in some cases, cryptocurrencies.

In studies dedicated to this topic, including the research of Hniezdovskyi O., Domashenko S., and Morozov D. [1], the role of the digital financial space in ensuring Ukraine's economic growth has been identified. They analyzed its main components, including financial platforms and services already in use on the Ukrainian market. Hulei A. I., Yazliuk B. O., and Hulei S. A. [2] explored the boundaries of the financial space and outlined prospects for its expansion, particularly by emphasizing cryptocurrencies as an investment tool.

The digital financial space potential			
Accessibility of digital financial instruments ↓	Digital infrastructure ↓	Regulatory and legal framework ↓	Readiness of business and society* ↓
Internet banking Mobile payments Blockchain solutions Fintech platforms	Broadband internet E-payment systems Cloud services Cybersecurity	Legislation on electronic money and transactions; A system of legislative and supervisory mechanisms that ensure the development of financial technologies in the country.	Digital literacy Trust in digital services Openness to innovation

Note
* Regarding the use of digital financial instruments and digital infrastructure

Fig. 1. Structural diagram of the digital financial space potential of enterprises in Ukraine

Source: compiled based on [1; 3; 5—6].

The development of the digital financial space of enterprises in Ukraine through financial technologies (Fintech) is covered in the works of Oliinyk I. V. [5], Roshchyn N., Shevchuk O., Kustarova K. [6], as well as foreign researchers such as Gomber P., Koch J.-A., and Ziering M [3]. Their studies emphasize the specific features of the digital financial space that contribute to the sustainable development of Ukrainian enterprises.

Table 1. The role of the digital financial space potential in the sustainable development of Ukrainian enterprises

Form of manifestation	Impact on sustainable development	Example of impact on the enterprise
Access to digital financial services (crowdfunding, online loans)	Increased financial accessibility for SMEs	A small agribusiness obtains investments through a crowdfunding platform without bank involvement.
Automation of accounting and financial reporting	Improved operational efficiency, cost reduction	Implementation of an ERP system reduced accounting costs and accelerated decision-making.
Transparency of transactions and financial flows	Reduced corruption risks, increased investor trust	The enterprise implements blockchain accounting to verify product origin.
Remote financial management and real-time analytics	Flexibility and adaptation to an unstable environment	The enterprise controls financial operations from anywhere in the world during the war.
Electronic platforms for sustainable financing (with ESG components)	Focus on the environmental and social responsibility of the business	Obtaining preferential financing from investors on the condition of compliance with environmental standards.
Implementation of digital identification and online tax services	Simplified access to government services, reduced administrative burden	The enterprise submits reports online through “Diia.Business” without spending time on physical presence.
Integration with international financial standards	Entry into new markets, attracting foreign partners, which promotes income diversification and enhances the economic resilience of the enterprise — a key component of sustainable development.	A Ukrainian company adopts international financial reporting standards to participate in global investment programs.

Source: compiled based on [1; 3; 6].

Table 2. Triggers and content of the processes for building the digital financial space potential for the sustainable development of Ukrainian enterprises

Unique economic, social, and political factors	Impact of factors on the nature and dynamics of the processes for building the digital financial space potential
Rapid digitalization dynamics amid crisis challenges	Ukraine is facing ongoing challenges related to military conflict, economic instability, and the pandemic. This intensifies the need for the rapid implementation of digital financial solutions capable of ensuring business flexibility and resilience.
Insufficient level of digital infrastructure in the regions	There is a significant digital divide between major cities and rural or remote areas, which limits the equitable access of enterprises to digital financial services.
Gradual improvement of the regulatory and legal framework	Although Ukraine is actively reforming legislation to support digitalization and fintech, numerous gaps remain in the regulation of cybersecurity*, personal data protection**, and electronic identification***.
Rising level of digital literacy and the need for further education	Enterprises are actively adopting digital tools, but comprehensive training programs are still needed to enhance competencies, especially among small and medium-sized businesses.
Active role of the state and international partners	There are government initiatives for digital transformation (such as "Diia"), as well as support from international organizations and donors, which stimulate the development of the digital financial space.
Specifics of implementing digital technologies considering security risks	The military conflict imposes heightened demands on cybersecurity and the protection of information systems, which shapes the specifics of developing and implementing digital financial solutions. Key priorities include cyber resilience, built-in data protection systems, preparedness for emergency scenarios, expanded monitoring and analytics capabilities, as well as high mobility and flexibility.
Integration with European and global digital financial ecosystems	The digitization processes in Ukraine are carried out with a focus on harmonization with EU standards, driven by the country's strategic course toward European integration. This is reflected in the implementation of legislative, technical, and organizational changes that bring Ukraine's financial and digital infrastructure closer to European standards.

Note

*Insufficient coordination between institutions; outdated security systems in the public sector; inadequate accountability for violations (in particular, mechanisms for punishing cyberattacks or data breaches remain weak or ineffective).

** Outdated legislation, lack of an independent regulator (there is no fully independent body like a Data Protection Authority responsible for oversight, auditing, and responding to data protection violations), and weak control over data processing by private companies.

*** Fragmentation of identification systems, absence of legally regulated digital identity (in particular, legislation does not fully regulate the concept of electronic identity for legal entities in financial relations), low level of trust in electronic identification.

Source: compiled based on [2-3; 5]

Despite the existing body of research, the potential of the digital financial space-particularly in terms of supporting the sustainable development of enterprises in Ukraine-has not been thoroughly explored. This gap is largely due to a predominant focus on macro-level issues, indicating a need for further scientific analysis.

FORMULATION OF THE ARTICLE'S OBJECTIVES

This article aims to provide a theoretical analysis of the processes involved in the formation, enhancement, and effective utilization of Ukraine's digital financial space potential in the context of ensuring the sustainable development of enterprises.

THE PAPER MAIN BODY

According to existing etymology, the authors interpret the category "digital financial space potential" as the combination of capabilities, resources, technological solutions, and institutional conditions that, through their structure, ensure the effective functioning of financial processes in the digital environment. Structurally, this potential encompasses the following key components (see Fig. 1) [1]:

— Accessibility of digital financial instruments, including internet banking, mobile payments, blockchain solutions, and fintech platforms;

— Level of development of digital infrastructure, including internet coverage, availability of payment systems, digital identification, and electronic document management services;

— Regulatory and legal framework that governs the functioning of the digital financial environment, data protection, electronic transactions, and other aspects of financial activity in the digital space;

— The readiness of the business environment and society to use digital financial instruments and digital infrastructure implies an adequate level of digital literacy, trust in digital services, and openness to innovation adoption.

We agree with the statements of Hniezdovskyi O., Domashenko S., and Morozov D. that the potential of the digital financial space plays a decisive role in the sustainable development of Ukrainian enterprises because [1; 5]:

1. Digital financial services enable enterprises, especially small and medium-sized ones, to access capital, investments, loans, and insurance without the involvement of traditional financial intermediaries.

2. Automation of accounting, electronic reporting, digital risk management, and budgeting reduce costs, increase productivity, and enable prompt managerial decision-making.

3. The use of digital financial instruments improves the transparency of cash flows, reduces corruption risks, and enhances trust from investors and partners

4. Enterprises gain the ability to adapt to crises (war, pandemic, inflation) through access to digital management platforms, remote financial operations, and real-time analytics.

5. Digital solutions help reduce paper usage, save energy, and improve monitoring of the business's environmental and social impact.

6. The implementation of digital financial standards enables Ukrainian enterprises to integrate into global economic and financial systems, opening up new markets and investment opportunities.

The role of the digital financial space potential in the sustainable development of Ukrainian enterprises is outlined in more detail in Table 1. Based on the data presented above, the study of the potential of the digital financial space for the sustainable development of Ukrainian enterprises should be conducted on the specific features of its formation, strengthening, and effective utilization by enterprises.

So, the processes of forming the potential of the digital financial space for the sustainable development of Ukrainian enterprises are ensured through the creation, development, and implementation of technical, organizational, regulatory, and human resources and conditions that guarantee the effective functioning of digital financial systems and instruments. This process involves the integration of modern digital technologies into financial processes, development of infrastructure, improvement of the legislative framework, enhancement of enterprises' digital competencies, as well as the adaptation of digital solutions according to the specific features of the national economic and social environment (as demonstrated by the data in Table 2).

Capacity building aims to establish the necessary technical infrastructure, create a regulatory and legal environment, enhance digital competencies, and tailor digital financial solutions to the national context.

The processes of enhancing the potential of the digital financial space involve purposeful activities by the state, businesses, and civil society aimed at strengthening its functional, technological, and regulatory-legal capabilities as a system. The content of these processes is outlined in Table 3.

Table 3. The contest of processes for enhancing the potential of the digital financial space for the sustainable development of enterprises in Ukraine

Direction of potential enhancement	Measures to enhance the potential of the digital financial space	Impact on the potential of the digital financial space
Improvement of digital financial infrastructure	Scaling payment systems, open APIs, fintech platforms; expanding access to open banking tools, mobile financial applications, and cloud services.	Ensures speed and continuity of financial operations, reduces costs, enhances competitiveness, and promotes innovative development of the enterprise.
Deepening digital literacy	Training entrepreneurs and staff in the effective use of digital financial services, security systems, and online analytics.	Improves the quality of management decisions, reduces financial risks, and fosters the development of human capital as the foundation of sustainable development.
Strengthening the regulatory and legal framework	Harmonizing Ukrainian legislation with EU standards (GDPR, PSD2, AMLD) and creating conditions for the protection of users' digital rights.	Increases trust among investors and partners, helps reduce corruption and reputational risks, and creates a transparent business environment.
Attracting investments in digital transformation	Stimulating public-private partnerships in the digital finance sector and supporting startups and innovation ecosystems through grant and venture programs.	Expands enterprises' access to innovation financing, enhances flexibility, innovativeness, and adaptability of the business to changes in the external environment.

Source: compiled based on [5—6].

The purpose of such capacity enhancement is to create a flexible, transparent, and innovation-oriented financial ecosystem capable of supporting the adaptability and competitiveness of enterprises.

For sustainable development, enterprises must access and integrate digital financial solutions effectively into

Table 4. Effective utilization of the digital financial space potential for the sustainable development of enterprises in Ukraine

Direction of potential utilization	Specifics of effective utilization of the digital financial space potential	Indicators of effective utilization of the digital financial space potential
Digital financial planning	Continuous updating of plans based on real data from digital platforms, including ESG factors in financial KPIs.	Growth of the enterprise's financial resilience. Increased adaptability to external challenges. Integration of digital solutions into the financial strategy. Automation of financial processes. Enhancement of financial transparency and stakeholder trust. Active use of alternative financial instruments. Achievement or significant improvement of sustainable development indicators.
Automation of accounting and reporting	Integration of automated accounting systems with management analytics dashboards; shortening financial cycles and optimizing costs.	
Integration of alternative financial instruments	Choosing platforms not based on availability, but on reliability indicators, cost of capital, and adaptation to the enterprise's needs.	
Digital risk management	Embedding digital risk assessment systems into decision-making processes (e.g., dynamic evaluation of counterparties' creditworthiness).	
Real-time analytics	Using dashboards and BI solutions for continuous monitoring of key financial and operational indicators.	
Enhancing financial transparency	Using blockchain technologies and smart contracts for interaction with investors, suppliers, and consumers.	
Digital transformation of financial strategy	Transition from reactive to proactive financial policy based on digital scenarios and modeling.	

Source: compiled based on [3—4; 6].

their operations. The content of these processes is outlined in Table 4.

The key to effective utilization is not only the technical implementation of digital solutions but also: strategic integration into the corporate financial policy; evaluation of the effectiveness of implemented solutions (in terms of increased resilience, adaptability, profitability, etc.); continuous staff training and updating digital competencies. The goal of such utilization of potential is to strengthen the already achieved systemic effect of the enterprise's sustainable development.

CONCLUSIONS

The conducted study confirms that the formation, strengthening, and effective utilization of the digital financial space potential are key processes for ensuring the sustainable development of enterprises in Ukraine. A systematic understanding of the structure of these processes allows for a more comprehensive assessment of the digital financial space as a strategic resource for national business environment transformation. Based on the results of the study, the following conclusions were made:

1. The formation of the digital financial space potential occurs under the influence of unique socio-economic, political, and security factors. The content of these processes includes the creation of appropriate technical infrastructure, regulatory framework, development of digital competencies, as well as the adaptation of digital financial solutions to the national context.

2. The strengthening of the digital financial space potential involves systemic actions by the state, business, and civil society aimed at modernizing infrastructure, expanding digital literacy, improving legislation, and attracting investments in digital transformation. The content of these processes encompasses the formation of a flexible, transparent, and innovation-oriented financial ecosystem capable of supporting the adaptability and competitiveness of enterprises.

3. The effective utilization of the digital financial space potential should occur through its strategic integration into the management and financial processes of the enterprise. The content of these processes includes technological implementation, revision of financial strategy, automation of key functions, risk management, use of digital analytics, and enhancement of financial transparency.

Overall, the combination of three processes — formation, strengthening, and effective utilization — creates an integrated model of digital financial transformation for enterprises, which can serve as a driver for their sustainable development, particularly in the context of crisis challenges and the European integration vector of state policy.

Prospects for further research include the development of applied models for assessing the effectiveness of the digital financial space potential in the context of sustainable development, as well as the formation of methodological approaches to its optimization, taking into account industry specifics and regional characteristics.

Література:

1. Гнєздовський О., Домашенко С., Морозов Д. Вплив цифрового фінансового простору на економічний розвиток: аналіз потенціалу та перспективи для України. Економіка та суспільство, 2024. Вип. 65. https://doi.org/10.32782/2524-0072/2024-65-117

2. Гулей А. І., Язлюк Б. О., Гулей С. А. Тенденції та перспективи розвитку криптовалют у світовій фінансовій системі. Український журнал прикладної економіки. 2018. Т. 3. Вип. 3. С. 8—19.

3. Gomber Peter, Koch Jascha-Alexander and Siering Michael, Digital Finance and Fintech: Current Research and Future Research Directions. Journal of Business Economics, Forthcoming, 2017. Vol. 10 URL: https://ssrn.com/abstract=2928833 (дата звернення 14.06.2025).

4. Kucheryavenko M. P., Dmytryk O. O., Golovashevych O.O. Cryptocurrencies: development, characteristics and classification. Financial and Credit Activity Problems of Theory and Practice. 2019. vol. 3 (30). P. 371—374. https://doi.org/ 10.18371/fcaptp.v3i30.179737

5. Олійник І. В. Підвищення стійкості організаційного розвитку вітчизняних підприємств в умовах цифровізації економіки. Таврійський науковий вісник. Серія: Економіка. 2022. № 14. С. 37—42.

6. Рощина Н., Шевчук О., Кустарьова К. Дослідження міжнародного фінансового ринку в умовах діджиталізації: нові можливості. Економічний вісник Національного технічного університету України "Київський політехнічний інститут". No 18. 2021. С. 44—50.

References:

1. Hniezdovskyi, O., Domashenko, S. and Morozov, D. (2024), "The impact of the digital financial space on economic development: analysis of potential and prospects for Ukraine", Ekonomika ta suspil'stvo, vol. 65. https://doi.org/10.32782/2524-0072/2024-65-117

2. Guley, A. I., Yazlyuk, B. O. and Guley, S. A. (2018), "Trends and prospects for the development of cryptocurrencies in the world financial system", Ukrayins'kyy zhurnal prykladnoyi ekonomiky, vol. 3, no. 3, pp. 8—19.

3. Gomber, P. Koch, J.-A. and Siering, M. (2017), "Digital Finance and Fintech: Current Research and Future Research Directions", Journal of Business Economics, Forthcoming, vol. 10, Available at: https://ssrn.com/abstract=2928833 (Accessed 14.06.2025).

4. Kucheryavenko, M. P., Dmytryk, O.O. and Golovashevych, O.O. (2019), "Cryptocurrencies: development, characteristics and classification", Financial and Credit Activity Problems of Theory and Practice, vol. 3 (30), pp. 371—374. https://doi.org/ 10.18371/fcaptp.v3i30.179737

5. Oliynyk, I.V. (2022), "Increasing the sustainability of organizational development of domestic enterprises in the context of digitalization of the economy", Tavriys'kyy naukovyy visnyk. Seriya: Ekonomika, vol. 14, pp. 37—42.

6. Roshchina, N., Shevchuk, O. and Kustaryova, K. (2021), "Research of the international financial market in the context of digitalization: new opportunities", Ekonomichnyy visnyk Natsional'noho tekhnichnoho universytetu Ukrayiny "Kyyivs'kyy politekhnichnyy instytut", vol. 18, pp. 44—50.

Стаття надійшла до редакції 20.06.2025 р.