JEL Classification: E42, G21, F36, O16 **DOI**: https://doi.org/10.31521/modecon.V57(2026)-35

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The Development of Cashless Payments in Ukraine in the Context of Integration into the Global Financial System

Abstract. Introduction. *The global financial system is undergoing rapid digital transformation, driven by the development of financial technology and the widespread adoption of digital payment methods. The shift toward a cashless economy is a key part of financial modernization, improving transaction efficiency, transparency, and inclusion.*

Purpose. *This study aims to analyze the development trends of cashless payments in Ukraine within the context of its integration into the global financial system.*

Results. *The study classifies contemporary cashless payment instruments by mode of functioning and level of digitalization. Statistical data from the National Bank of Ukraine shows steady growth in the volume of non-cash transactions, issued payment cards, and tokenized and contactless payment technology adoption. The research identifies the significant roles of the banking sector and fintech companies in shaping the modern payment landscape by developing mobile banking, digital wallets, and instant payment solutions.*

Particular attention is devoted to harmonizing Ukrainian financial regulations with European Union standards and international payment infrastructure requirements. Implementing international technological standards, such as EMV, 3-D Secure, and ISO 20022, strengthens the security and interoperability of Ukraine's payment systems within the global financial network. The study also emphasizes Ukraine's strategic goal of joining the Single Euro Payments Area (SEPA), expected to reduce cross-border transaction costs and stimulate international economic cooperation.

However, several challenges remain, including cybersecurity risks, unequal access to digital financial services among different population groups, and the need to further modernize regulatory frameworks.

Conclusions. *The research confirms that developing cashless payments is crucial to modernizing Ukraine's financial system and integrating it into the global financial environment. Further expansion of digital payment technologies, regulatory harmonization with EU standards, and development of payment infrastructure will contribute to the formation of a competitive, transparent, and resilient digital economy.*

Keywords: *cashless payments, global financial system, fintech, payment infrastructure, financial integration, SEPA, digital payments.*

УДК 336.717.13(477):339.92

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[1]**Стаття надійшла до редакції**: 06.05.2026
Received: 06 May 2026

Розвиток безготівкових платежів в Україні у контексті інтеграції до світової фінансової системи

***Анотація**. Глобальна фінансова система зазнає стрімкої цифрової трансформації, зумовленої розвитком фінансових технологій та широким впровадженням цифрових платіжних інструментів. Перехід до безготівкової економіки став стратегічним напрямом фінансової модернізації, що сприяє підвищенню ефективності розрахунків, фінансової прозорості та рівня фінансової інклюзії.Метою дослідження є аналіз тенденцій розвитку безготівкових розрахунків в Україні в контексті інтеграції до глобальної фінансової системи. У роботі представлено класифікацію сучасних безготівкових платіжних інструментів за способом функціонування та рівнем цифровізації. Встановлено стале зростання обсягів безготівкових операцій, кількості випущених платіжних карток, а також поширення токенізованих і безконтактних платіжних технологій. Дослідження виявляє значну роль банківського сектору та фінтех-компаній у формуванні сучасного платіжного середовища через розвиток мобільного банкінгу, цифрових гаманців та систем миттєвих платежів. Особливу увагу приділено гармонізації українського фінансового регулювання з нормативними стандартами Європейського Союзу та вимогами міжнародної платіжної інфраструктури. Впровадження міжнародних технологічних стандартів, таких як EMV, 3-D Secure та ISO 20022, підвищує рівень безпеки та сумісності платіжних систем України в межах глобальної фінансової мережі. Окремо підкреслено стратегічну мету України щодо приєднання до Єдиної зони платежів у євро (SEPA), що має забезпечити суттєве зниження транзакційних витрат за міжнародними платежами та сприяти розвитку міжнародного економічного співробітництва. Водночас зберігаються певні виклики, зокрема ризики кібербезпеки, нерівномірний доступ населення до цифрових фінансових послуг, а також необхідність подальшого вдосконалення регуляторного середовища. Дослідження підтверджує, що розвиток безготівкових платежів відіграє важливу роль у модернізації фінансової системи України та її інтеграції до глобального фінансового простору. Подальше розширення цифрових платіжних технологій, гармонізація регуляторної бази з нормами ЄС та розвиток платіжної інфраструктури сприятимуть формуванню конкурентоспроможної, прозорої та стійкої цифрової економіки.*

***Ключові слова**: безготівкові платежі, світова фінансова система, фінансові технології, платіжна інфраструктура, фінансова інтеграція, SEPA, цифрові платежі.*

Problem statement. The global financial space is undergoing a continuous process of digital transformation. The rapid development of financial technologies and the widespread expansion of the Internet have triggered tectonic shifts in the circulation of money, where traditional paper-based payment instruments are gradually being replaced by electronic solutions. The formation of a cashless economy is no longer viewed merely as a technical improvement of payment processes but is increasingly recognized as a strategic factor of macroeconomic stability, the shadow economy reduction, and enhanced monetary transparency.

The transition to cashless payments is inherently complex, directly influencing transaction efficiency and the level of financial inclusion within society. For Ukraine, these processes are of particular importance in the context of integrating the national financial system into the global financial architecture. The ambition to become a full-fledged participant in the European economic area requires not only declarative openness but also full technological and regulatory compatibility of payment systems. However, this integration process is constrained by a number of challenges, ranging from the need for large-scale legislative harmonization to overcoming the digital divide within the country.

Analysis of recent research and publications. Contemporary academic research is increasingly focused on various aspects of the development of cashless payments within the global financial system. In particular, Pulak Ghosh, Boris Vallée, and Yao Zeng examine the informational synergy between cashless payments and fintech lending [1]. The authors demonstrate that the use of digital payment instruments generates a verifiable digital financial footprint of users, enabling financial institutions to more accurately assess borrowers' creditworthiness, reduce credit risks, and expand access to financing for small and medium-sized enterprises.

The study by Andrea Birigozzi, Cristina De Silva, and Prabesh Luitel analyzes the relationship between the spread of digital payments and economic growth [2]. The authors emphasize that the development of digital payment systems enhances the efficiency of financial transactions, reduces transaction costs, and expands access to financial services, which, in the long run, has a positive impact on economic activity.

Particular attention to the issue of central bank digital currencies is given by Qifeng Tang and Yain-Whar Si [3]. Based on the analysis of 135 academic studies, the authors systematize approaches to the architecture and functioning of CBDCs and conduct a comparative analysis of 26 existing systems. The findings indicate that the most common configuration is a two-tier architecture based on distributed ledger technology and a token-based access model.

Research objectives. The purpose of the study is to analyze the development trends of cashless payments in Ukraine in the context of integration into the global financial system.

To achieve this objective, the following tasks must be addressed:

- to classify modern cashless payment instruments;
- to analyze the dynamics of cashless transactions in Ukraine;

— to determine the role of the banking system and the fintech sector in shaping the modern payment landscape;

— to analyze the processes of harmonizing national legislation with the requirements of the European Union;

— to summarize the existing challenges and outline the strategic prospects for market development.

Research results. The history of financial innovation demonstrates that the evolution of money has always been closely linked to the development of communication technologies. Cashless payments have evolved from the use of paper checks and cumbersome bank transfers to instant transactions enabled by biometrics and QR codes. It is important to distinguish between cashless payment instruments and the channels through which they are delivered. For example, internet banking and mobile banking serve as technological access channels to financial services, whereas the instruments themselves include electronic money, credit transfers, payment cards, and direct debits. This functional distinction allows for a clearer understanding of the architecture of modern financial systems.

From the perspective of theoretical classification, the modern toolkit of the cashless economy can be structured according to several criteria. For clarity and to avoid fragmentation, it is advisable to present a typology of the main cashless payment instruments and their characteristics (Table 1).

Table 1 **Classification of modern cashless payment instruments by method of operation and degree of digitalization**

Instrument name	Method of initiation and functional characteristics	Degree of digitalization
Credit transfer	Direct instruction from the payer to the bank to transfer funds to the recipient's account.	Medium (uses clearing systems)
Direct debit	Withdrawal of funds from the payer's account based on prior authorization in favor of the recipient.	Medium (automated)
Payment cards	Debit and credit plastic cards or their digital tokens used for payments at POS terminals and online.	High (NFC, tokenization)
Electronic wallets	Prepaid digital accounts that enable payments using QR codes and mobile applications.	High (mobile ecosystem)
Cryptocurrencies / CBDCs	Decentralized or sovereign digital assets based on blockchain technology for instant peer-to-peer transactions.	Ultra-high (DLT, smart contracts)

Source: compiled by the authors based on [4–8]

The presented typology reflects the key instruments that form the modern infrastructure of cashless payments. Their functioning takes place within the context of increasing integration of financial systems, while the global financial landscape is characterized by a shift toward integration and cross-border interaction among national systems. However, at the current stage, international payments remain significantly more expensive and slower compared to domestic transactions. The average global cost of sending a cross-border remittance of USD 200 is approximately USD 12 [9]. At the same time, the transaction itself may take several days due to the complex network of correspondent banks and the need to comply with strict foreign exchange control and anti-money laundering procedures. In response to these challenges, a roadmap to enhance cross-border payments was developed under the auspices of the G20, aiming to reduce the average cost of retail remittances to below 1% by 2027 [10]. An important element of global trends is the development of sovereign digital currencies. For instance, the People's Bank of China actively deployed the digital yuan (e-CNY) during the 2022 Winter Olympic Games, processing transactions worth billions of yuan [11].

Global trends in the modernization of payment infrastructure are also reflected in the development of national financial systems. In this context, the experience of Ukraine is particularly illustrative, as its payment system demonstrates a high level of adaptability to contemporary challenges. Even under martial law and the associated infrastructure constraints, consumers continue to increase their use of digital financial instruments (Table 2).

The transformation of the payment market in Ukraine has been driven by a unique combination of efforts from traditional banking institutions and dynamic fintech players. Conventional banks have shifted from branch-based services to the development of mobile platforms capable of handling high transaction volumes. At the same time, fintech companies in Ukraine act as catalysts for change by offering flexible payment gateways, instant settlement solutions, and micro-lending services. The informational synergy between transactional data and risk assessment has stimulated the development of alternative banking models that do not require extensive physical branch networks and enable lower interest rates for reliable borrowers.

Table 2 **Dynamics of key indicators of cashless payment development in Ukraine in 2024–2025**

Indicator category	2024	2025	Change
Total number of issued cards, million	131.9	148.7	+12.7%
Active payment cards, million	58.7	65.4	+11.4%
Tokenized (NFC) cards, million	16.4	20.7	+25.9%
Volume of cashless transactions, trillion UAH	4.31	4.68	+9.0%
Average transaction value in physical retail, UAH	330	354	+7.3%
Average transaction value in e-commerce, UAH	561	608	+8.4%
Share of cashless transactions using payment cards in total transaction value, %	64.5	65.4	+0.9%
Share of cashless transactions using payment cards in total number of transactions, %	94.6	95.5	+0.9%

Source: compiled by the authors based on [12]

The technological maturity of Ukraine’s fintech sector constitutes a significant prerequisite for the country’s full integration into the global financial system. Ensuring cross-border compatibility requires the implementation of open banking protocols (Open APIs) and the adoption of international standards for financial messaging. These digital solutions enable Ukrainian payment providers to integrate with global platforms, thereby creating conditions for faster and more cost-efficient capital flows.

Ukraine’s payment infrastructure has been formed in close interaction with global payment systems, primarily Visa and Mastercard, which play a key role in ensuring technological interoperability and the security of card transactions. It is through integration with international payment networks that technological standards such as EMV – regulating the use of chip-based cards and enhancing the security of payment operations – and the 3D Secure protocol, designed to provide additional authentication for online transactions, have been implemented in the Ukrainian market [13]. At the same time, tokenisation and contactless payment technologies are becoming increasingly widespread, enhancing the security and user-friendliness of digital financial services. Cooperation with international payment systems enables Ukrainian users to carry out financial transactions within the global payment ecosystem and participate fully in international e-commerce. At the same time, Ukraine’s European integration trajectory envisages the gradual harmonisation of the national payment infrastructure with European payment schemes and regulatory standards, which should help to increase competition in the domestic market and reduce the dominance of certain international payment associations.

The most fundamental and challenging stage of integration is the alignment of the national regulatory framework with the standards of the European Union and the FATF. The primary focus of this process is Ukraine’s accession to the Single Euro Payments Area (SEPA). In this regard, draft laws – particularly those numbered 13233 and 14327 – are actively being considered and developed in Parliament and by the government to meet the stringent criteria set by the European Payments Council [14; 15]. To better understand the scale of the reforms, it is advisable to group the key legislative innovations being implemented in Ukraine on the path toward SEPA (Table 3).

Table 3 **Key directions of institutional and regulatory reforms in Ukraine’s financial sector**

Legislative requirement / Reform direction	Substance of the mechanism and purpose of implementation	Administering authority
Register of accounts and safe deposit boxes of individuals	Accumulation of data on opened accounts of taxpayers (without information on balances) to enable the rapid identification of illicit capital.	State Tax Service / Ministry of Finance
Register of beneficial owners of trusts	Ensuring transparency of ownership structures and preventing the use of anonymous offshore instruments.	Ministry of Finance
Protection of whistleblowers	Establishment of secure channels for reporting cases of money laundering within financial institutions.	Financial Monitoring Service
ISO 20022 standards	Transition to a unified international format for structuring financial messages in interbank settlements.	National Bank of Ukraine

Source: compiled by the authors based on [16; 17]

Successful integration into SEPA and the development of cashless systems can provide a powerful stimulus to the growth of the Ukrainian economy. Aligning cross-border euro transfers with the conditions of domestic payments would fundamentally transform the business environment. According to estimates by the Institute for Economic Research and Policy Consulting, the total positive effect of Ukraine's accession to SEPA for both households and businesses could amount to €70–100 million annually, primarily due to reduced intermediary fees [18]. The small and medium-sized enterprise (SME) segment stands to benefit in particular. For approximately 120,000 Ukrainian small exporters and IT service providers, annual savings could reach up to €4,000 per company. Overall, the liberalization of the payment space and the removal of transaction barriers could generate additional growth in Ukraine's gross domestic product of up to 0.3% within the first year following the full implementation of the system [19].

Despite rapid growth, the cashless payment sector in Ukraine faces a number of systemic challenges. The conducted analysis makes it possible to identify several critical areas that require increased attention.

First, structural inefficiencies in the international payment infrastructure persist, manifested in the high cost and long processing times of cross-border transactions. Despite international initiatives aimed at modernizing payment systems, a significant share of international transfers is still conducted through complex networks of correspondent banks, which increases transaction costs and slows down capital flows.

Second, a major challenge remains the need to harmonize national legislation with international financial standards, particularly the requirements of the European Union and the FATF. The implementation of these regulatory norms requires substantial institutional transformations, modernization of financial supervision, and the development of new mechanisms to ensure transparency in financial operations.

Third, the expansion of digital payments intensifies cybersecurity risks associated with potential cyberattacks, data breaches, and technological failures of financial platforms. Ensuring the stability and security of the digital payment infrastructure has become one of the key priorities for both regulators and financial institutions.

The prospects for the further development of cashless payments appear promising. Ukraine is expected to complete pilot integration projects with SEPA in 2026, while full membership, under an optimistic scenario, may be achieved in 2027–2028. The future also lies in the advancement of biometric payment authentication and the pilot launch of the digital hryvnia (e-hryvnia), which has the potential to combine the reliability of centralized money with the technological flexibility of blockchain.

Conclusions. The study analyzes the key trends in the development of cashless payments in Ukraine in the context of integration into the global financial system. Cashless transactions are identified as one of the core elements of the digital transformation of the financial sector and an important tool for enhancing the efficiency of economic processes.

A positive dynamic in the growth of both the volume and share of cashless transactions in Ukraine can be observed, indicating the gradual formation of a digital payment environment and increasing public trust in modern financial instruments. The findings confirm that the banking system and the fintech sector play a significant role in the development of payment infrastructure by actively implementing innovative technologies, including contactless payments, tokenization, mobile payment services, and other digital solutions.

The study also examines the processes of harmonizing national legislation with the requirements of the European Union. It is established that the implementation of international payment infrastructure standards, particularly ISO 20022, as well as gradual integration into the European payment space, create preconditions for enhancing financial transparency, increasing competition in the financial services market, and expanding opportunities for cross-border transactions.

At the same time, among the key challenges of the cashless market development are the need for further improvement of the regulatory framework in the field of digital financial services and the necessity of ensuring an adequate level of cybersecurity within the payment infrastructure.

Thus, the study confirms that the development of cashless payments in Ukraine is a crucial factor in modernizing the financial system and deepening its integration into the global financial environment. Further implementation of innovative financial technologies, harmonization of the regulatory environment with international standards, and the development of payment infrastructure will contribute to the formation of a competitive and resilient digital economy.

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