

DIGITAL TOOLS FOR PAYMENT: MODERN TRENDS, INTERNATIONAL EXPERIENCE

Throughout history, money has constantly changed form alongside technological advances. Society moved from metal coins to paper money, then to bank accounts and plastic cards. Today, the world is entering a new phase – the transition to fully digital forms of money and payments, accelerated by the development of the internet, mobile technologies, and fintech.

One of the key developments in this process has been the emergence of central bank digital currencies (CBDCs). Unlike traditional non-cash funds, which exist as entries in commercial bank accounts, CBDCs are a direct liability of the central bank and represent an independent digital form of national currency.

At the same time, private digital payment platforms – mobile wallets, fast transfer systems, and financial ecosystems – are developing. In a number of countries, they have already become the primary form of payment, creating a new payment environment where transactions are instantaneous and integrated into everyday digital life. This process has been most evident in China with the introduction of the digital yuan. Russia is developing its own independent payment infrastructure and a digital ruble, and Belarus is in the midst of actively digitalizing its financial system.

The development of digital payments has not only technological but also institutional significance. It's not just the form of payments that is changing, but the very structure of interactions between the state, banks, and citizens. While this increases the transparency of financial transactions and reduces costs, it also heightens concerns about control, confidentiality, and the role of the state in the monetary system.

Modern cashless payments via cards and mobile apps are transactions within the commercial banking system. When a payment or transfer occurs, money is not transferred as an independent object, but rather, an account entry is changed. Even with the participation of international payment systems, money remains bank deposits – an obligation of commercial banks to their clients.

Thus, traditional non-cash funds are a digital form of bank deposits and are entirely dependent on the banking infrastructure. The user controls not an independent form of money, but rather a claim on the bank, making the system intermediary in nature.

Central bank digital currencies represent a different model for organizing settlements. They are a digital form of national currency, issued directly by the central bank. Unlike bank deposits, CBDCs are an independent form of money, not an entry in a commercial bank account. The user holds not a claim on the bank, but a digital form of the national currency.

The difference manifests itself at the infrastructure level. In a traditional system, payments are processed through the balance sheet of a commercial bank. In the CBDC model, settlements can be carried out through a platform controlled by the central bank, without the mandatory involvement of banks as intermediaries. Commercial banks can perform auxiliary functions, but are not the sole channel for the movement of funds.

Thus, CBDCs are not a new interface to traditional banknotes, but a new form of money in a digital environment. Logically, they are closer to cash, but adapted to modern electronic technologies. This changes the structure of financial relations and reduces the payment system's dependence on banking infrastructure.

China is currently the most advanced example of digitalization in its payment system. In just two decades, the country has practically transitioned from cash to the dominance of mobile payments. Platforms like WeChat Pay and Alipay have made smartphone payments a common practice – from in-store purchases to person-to-person money transfers.

As a result, an environment emerged where payments became fast, cheap, and almost invisible. This accelerated the circulation of money in the economy and simplified financial interactions between citizens and businesses. However, a significant portion of the payment infrastructure ended up in the hands of private technology companies, creating the risk of diminishing state control over the monetary system.

The answer was the introduction of the digital yuan (e-CNY), developed by the People's Bank of China. Its goal is to create a state-owned digital form of the national currency, independent of private platforms. Unlike bank deposits, the digital yuan is a direct liability of the central bank and can be used through the state-owned digital infrastructure.

The project's implementation was made possible by the highly digitalized society, widespread smartphone penetration, and a robust technological base. China's experience shows that CBDCs can only be effectively implemented in countries where a well-developed digital payment environment already exists.

In Russia, the development of digital payments is primarily driven by the goal of financial independence and system sustainability. The creation of the national payment system "Mir" has reduced dependence on international operators, while the introduction of the Faster Payments System has

ensured instant transfers and lower fees. This has made digital payments widespread and technologically sustainable.

The next stage is the digital ruble. It is considered a third form of national currency, alongside cash and bank deposits. Its implementation should create a more direct settlement model through the central bank's infrastructure and partially reduce the role of commercial intermediaries.

In the Republic of Belarus, digitalization is developing more gradually and within the framework of the existing banking model. Cashless payments are widespread, and mobile banking has become standard for urban residents. The National Bank supports digital services and the gradual transition to a cashless economy.

The digital Belarusian ruble project is in the development stage. The country's potential lies in its developed IT sector and compact financial system, which theoretically simplifies the implementation of new solutions. However, the current model remains banking-centric: digitalization is aimed at improving the efficiency of the existing infrastructure, not at its structural restructuring.

KROK is a new national payment system in Belarus, developed by the National Bank of Belarus (NBRB) for instant payment for goods and services via QR codes without the use of bank cards. Payments are made directly from account to account (C2B) online, ensuring high speed, security, and lower fees for businesses. The KROK system operates using the instant payment system and ERIP. The buyer scans a QR code, and the money is instantly transferred to the seller's account. No card is required; the payment is made directly from the account, eliminating international system fees. By July 1, 2026, systemically important banks of the first group will join KROK, and by the end of 2026, all banks will join.

Thus, Russia is focusing on payment sovereignty, while Belarus is still at the stage of technological improvement of the banking system with a possible transition to a CBDC in the future. Digital payments have radically transformed everyday financial behavior. Settlements have become instant, remote, and virtually seamless. Money circulates faster, reducing the time between a transaction and its completion, which increases overall economic dynamism.

LITERATURE

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