**The issue of privacy of central bank digital currencies**

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In the context of global digitalization and the growing popularity of cryptocurrencies, the creation of digital currency becomes an important step to ensure economic stability and improve the efficiency of monetary circulation. The relevance of this topic is due to the active growth of interest of banking sector researchers to digital payment solutions, and due to the necessity of adaptation of the financial system to new technological challenges. Digital currency can help to reduce transaction costs, improve financial inclusion and increase the transparency of operations, which is extremely important in today's economic realities. However, it is worth addressing the statistics on confidence in digital currency and other pressing issues related to its further development. The purpose of this study is to accumulate methods of achieving privacy to enhance the development of digital currencies.

Central Bank digital currencies are being developed by 130 countries that account for 98% of the global economy. Bahamas (Sand Dollar), Nigeria (eNaira), Zimbabwe (ZiG) and Jamaica (Jam-Dex) have already launched their own digital currencies, in China there is a possibility to pay for public services, taxes, retail payments with digital yuan, 18 countries are piloting the technology [4]. In October 2020, the Central Bank of Russia posted on its website a report on the Digital Rouble public consultation, and in December 2021 its prototype was created. During 2022, thirteen key banks conducted the first stage of pilot testing of the Digital Rouble with simulated opening of digital wallets to banks and citizens, C2C and C2B transfers [2]. This led to an increase in demand for it, expansion of its functionality within the country.

Digital currency transactions involve the processing of a significant amount of identity and transaction-related information, which raises privacy concerns for future users. This is stated in the report on public consultations on the digital euro of the European Central Bank. The report showed that privacy is a more important characteristic compared to security and usability [7]. On the one hand, digital currency researchers argue that building trust can help overcome privacy concerns. On the other hand, according to the results of the research done by Chinese scholars trust is an insignificant factor for local digital currency users and it is necessary to focus on developing additional features that meet the needs of end users of online and offline transactions [8].

Generally, innovations in payments imply the emergence of new fraud technologies. According to the Ministry of Internal Affairs of Russia: "in 2024, the damage caused by cyber fraudsters increased by 36% to 200 billion rubles (in 2023 - 147 billion rubles)". Also at the forum, a plenary session was held to discuss the actions of the Central Bank and the Ministry of Internal Affairs of the Russian Federation to combat cyber fraud [1].

In modern Russia, financial technologies are becoming an essential part of economic services, which include payments. On the basis of Fintech (financial technologies), the Bank of Russia's program "Digital Economy of the Russian Federation" is being implemented. It is aimed at the development of such technologies as biometric identification, blockchain, financial marketplaces, financial transaction registrar, digital profile, distributed registers and fast payment system [3]. According to the BIS Bank for International Settlements, despite the difficulties of implementing a new form of currency, 81 out of 86 central banks are thinking of issuing it [6]. However, users do not see the need for an additional type of payment, merchants hesitate to update their settlement infrastructure, not all banks are ready to take an active part in the spread of this technology, because, given the costs of adapting existing technologies to work with digital wallets, they cannot receive the same profit from the use of digital currencies as from bank card transactions [5].

Successful implementation of digital currency requires: 1) developing a clear regulatory framework for the use of a third form of currency through international smart contracts; 2) conducting educational programs for the public on the benefits and risks of digital currency; 3) establishing partnerships with fintech companies to test and implement new technologies to expand global market penetration opportunities; 4) implementing robust monitoring systems to timely detect and prevent any potential payment privacy breaches both domestically and abroad.

In summary, the Bank of Russia's digital currency has the potential for significant changes in the country's financial system. The results achieved show the need for further research and active discussion of issues related to its implementation in order to minimize risks and maximize the opportunities it offers. In modern conditions in Russia, the risks in this sphere are monitored by the Bank of Russia, the Ministry of Internal Affairs of Russia, FinCERN and such measures as data encryption, increasing requirements in terms of information security, providing modern means of authentication of users when using innovative financial products, services, and services are taken to minimize risks and ensure the reliability for Russian market participants. Still, all these measures are not enough to ensure the development of a new form of money; the experience of countries at the next stage of digital currency introduction should also be taken into account.

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