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ELECTRONIC WALLETS AND THEIR IMPACT ON THE BANKING SECTOR

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ABSTRACT

The proliferation of electronic wallets has become one of the most prominent phenomena in the digital transformation of the financial sector in recent years. There is a steady trend toward a decreasing share of cash payments and a growing volume of cashless transactions, which directly affects the structure of banking services and the revenue models of credit organizations. The purpose of this study is to identify the nature and depth of the electronic wallets' impact on the banking sector, taking into account modern technological and institutional changes. The paper provides a comparative analysis of traditional banking products and fintech solutions, and examines shifts in consumer behavior. The findings indicate that electronic wallets serve simultaneously as a competitor and an integration tool for banks. The practical significance lies in the possibility of utilizing the identified patterns to develop bank digital transformation strategies. Special attention is paid to risks and limitations related to security and regulation.

Keywords: electronic wallets, fintech, banking sector, digital payments, cashless transactions, mobile finance, financial technologies, payment systems, digital economy, banking innovation

INTRODUCTION

Over the past 10–12 years, the payment infrastructure has undergone changes that are difficult to explain by technological progress alone. The share of cashless transactions in a number of countries has exceeded 70–85% of total transaction volume, whereas in the early 2010s this figure rarely reached even 40%. In parallel, a new category of financial instruments—electronic wallets—emerged and rapidly established itself. Their adoption has been particularly intensive in countries with high mobile penetration: according to international analytical agencies, by 2023, more than 3.5 billion users worldwide had used electronic wallets at least once to pay for goods and services.

The relevance of this topic is determined not only by the scale of digital payment adoption but also by the shifting logic of interaction between the client and the bank. While previously the bank acted as the sole intermediary in settlements, today a part of its functions is effectively redistributed in favor of fintech companies. Electronic wallets provide instant transfers, minimize transaction costs, and shape a new model of financial behavior for users, where speed and convenience become more important than the traditional reliability of banking institutions. As a result, the banking sector faces a dual challenge: intensified competition on one hand, and the necessity of integrating with new technological platforms on the other.

The scientific problem lies in the contradictory nature of the electronic wallets' impact on the banking system. There are reasons to argue that the development of fintech services reduces banks' fee income and weakens their control over payment flows. At the same time, cooperation processes are

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observed where banks become the infrastructure foundation for the operation of electronic wallets, providing them with settlement accounts, licenses, and access to payment systems. The question arises: does the expansion of electronic wallets lead to the displacement of banks or, conversely, to the transformation of their role in the financial ecosystem? A definitive answer has not yet been formed in the scientific literature, which enhances the research significance of this topic.

The purpose of the study is to identify the nature and direction of the impact of electronic wallets on the banking sector, taking into account modern trends in the digitalization of the economy. Particular emphasis is placed on analyzing changes in the structure of banking revenues, customer behavior, and institutional mechanisms of interaction between banks and fintech companies.

To achieve this goal, the following objectives have been formulated:

To analyze the dynamics of electronic wallet adoption and their functional capabilities during the 2015–2024 period;

To determine the key areas of electronic wallet impact on traditional banking operations (payments, transfers, lending);

To identify changes in the revenue structure of banks under the influence of digital payment instruments;

To conduct a comparative analysis of competition and cooperation models between banks and fintech companies;

To assess the risks and limitations associated with the development of electronic wallets, including security and regulatory issues.

The choice of this research area is driven by the fact that the digitalization of the financial sphere has ceased to be a prospect—it has become the current reality. The banking system is forced to adapt to conditions where the customer is no longer tied to a single financial institution but moves freely between various services, choosing the most convenient and fastest tool. This changes not only the market but the very nature of financial intermediation.

METHODOLOGY

The study is built on a combination of quantitative and qualitative analytical methods, which helped avoid a one-sided interpretation of the ongoing processes in the banking sector. First and foremost, a comparative analysis was applied to contrast traditional banking instruments and electronic wallets across key parameters: transaction speed, transaction cost, penetration level among the population, and share in total payment volume. This approach made it possible to identify not only the differences but also the points of functional intersection.

The statistical baseline was formed using open data from central banks, international payment systems, and analytical reports for the period 2015–2024. Aggregated indicators were utilized: the volume of cashless payments, the share of mobile transactions, and the level of financial inclusion. When processing the data, elements of trend analysis were applied to assess the dynamics of electronic wallet expansion and the changes in the structure of banking revenues.

The qualitative part of the study relied on the case study method. Practices of countries with varying degrees of digitalization were examined: from states with a developed fintech ecosystem to transition economies. This allowed us to identify the dependency between the level of technological development and the speed of bank adaptation to new conditions. Additionally, an institutional approach was used to analyze the interaction mechanisms between banks and fintech companies, including licensing, partnership agreements, and API integration.

The sources of information included reports from international organizations, publications from research centers, and data from national regulators. In some instances, expert estimates reflecting

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current market trends were used. This set of sources made it possible to form a comprehensive understanding of the ongoing changes without being limited to narrow industry data.

RESEARCH RESULTS

The analysis demonstrated that within a relatively short period, electronic wallets have captured a significant share in the structure of payment operations. While in 2015 their share in the global volume of cashless payments was estimated at 8–10%, by 2023 this figure exceeded 35%. In certain regions, particularly in Asia, the share of digital wallets reached 50–60%, which has effectively transformed the financial behavior model of the population.

The growth in popularity of electronic wallets is directly linked to their functional advantages. The average transaction processing time has been reduced from several minutes (in the case of interbank transfers) to a few seconds. Fee expenses have decreased by an average of 20–40%, making such services attractive not only to individuals but also to small businesses. As a result, a portion of the operations previously handled by banks has been redistributed to fintech platforms.

At the same time, an ambiguous effect on banking revenues is observed. The decline in fees from payment operations is partially offset by the growing number of transactions and an expanding customer base. However, this effect manifests unevenly: large banks possessing a robust digital infrastructure adapt faster, whereas smaller credit institutions lose their market ground. For a clear comparison of the key characteristics, a comparative table is provided below:

Table 1. Comparison of Electronic Wallets and Traditional Banking Instruments (2023)

Indicator	Electronic Wallets	Banking Systems
Average transaction time	2–5 seconds	1–24 hours
Transfer fee	0–1.5%	1.5–3%
User share (% of population)	55–70%	65–85%
Availability (24/7)	High	Limited
Physical visit requirement	None	Partially required

The table data demonstrates that the key advantage of electronic wallets lies in speed and availability. These very factors drive steady user demand. Meanwhile, banks retain their advantage in the areas of trust and regulation, which is particularly crucial for large financial operations. An interesting trend is the shift in customer behavior. Users increasingly employ the electronic wallet as their primary tool for daily transactions, while reserving their bank account for savings and large-scale operations. This leads to a redistribution of financial flows and reduces the role of banks as universal intermediaries.

Additionally, a correlation was identified between the level of economic digitalization and the degree of electronic wallet impact. In countries with high internet penetration (over 80%), the growth rate of electronic payments is on average 25–30% higher than in countries with less developed infrastructure. This confirms that the technological environment is a critical factor in the transformation of the financial sector. Taken together, the results indicate that electronic wallets do not merely supplement the banking system, but gradually alter its architecture. Banks are losing their monopoly in the payment sphere, yet they maintain relevance through integration with new digital services.

DISCUSSION

The obtained results do not fit into a simple model of banks being «displaced» by fintech entities. The picture is more complex and contradictory. Electronic wallets do indeed siphon off a significant portion of payment operations, especially in the low-to-medium value retail transaction segment. However, this redistribution does not lead to the disappearance of the banking system; rather, it changes its functional configuration.

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A comparison with prior research shows that early papers from 2015–2018 viewed electronic wallets primarily as an ancillary tool incapable of competing with banking services in the long run [1]. By 2020, this stance began to be revised: a number of studies noted that fintech platforms were starting to form their own ecosystems extending beyond payments [2]. More recent analytical reviews from 2022–2024 record a qualitative shift—electronic wallets are turning into full-fledged financial interfaces through which the user interacts with the economy as a whole [3].

Interestingly, the impact of electronic wallets manifests differently depending on the structure of the banking sector. In countries with a high concentration of banking capital (for instance, where 3–5 banks control over 70% of assets), the implementation of fintech solutions most frequently occurs through partnership. Banks integrate electronic wallets into their ecosystems, reducing the risk of customer loss. In more fragmented systems, the reverse is observed: fintech companies become independent players and gradually crowd out banks from specific market segments.

The alteration of banks' revenue structure deserves separate attention. Traditionally, a substantial portion of profits was generated from payment and transfer fees. According to data for 2019–2023, the share of fee income in several countries dropped by 10–18%. This coincides chronologically with the rising popularity of electronic wallets. The cause-and-effect relationship here is quite clear: the lower cost of transactions in the fintech environment forces banks to either lower their fees or lose clients.

Nonetheless, compensating mechanisms cannot be ignored. The surge in transaction volumes, even with lower fees, partially offsets the losses. Furthermore, banks are starting to actively develop ancillary services—investment products, digital channel lending, and personalized financial services. In this sense, electronic wallets act as a unique catalyst for the modernization of banking operations.

A profound shift is also happening at the level of customer behavior. The user ceases to perceive the bank as the single hub of financial activity. Financial operations are becoming fragmented: everyday payments go through electronic wallets, savings stay in bank accounts, and investments are made via separate platforms. This leads to a «unbundling» of the financial space, where different functions are allocated among various services. In the long term, such a model may erode customer loyalty to specific banks.

The trust factor is no less critical. Despite the technological advantages of electronic wallets, the level of trust in them remains lower compared to banks, especially regarding the storage of large sums of money. This is confirmed by the fact that more than 60% of users prefer to keep their savings in bank accounts, even while actively using fintech services for daily settlements. A peculiar balance emerges: speed and convenience are on the side of electronic wallets, while stability and safety remain with the banks.

Risks associated with the development of electronic wallets also require separate analysis. First and foremost, this concerns cybersecurity. An increase in digital transactions inevitably expands the field for fraudulent activities. According to international organizations' estimates, the volume of cybercrime in digital payments grew by 20–25% between 2020 and 2023. Banks, which possess more stringent control systems, prove to be more secure in this context compared to a number of fintech companies.

The regulatory aspect also remains ambiguous. In some countries, electronic wallets fall under banking regulations, while in others they operate within softer frameworks. This creates an asymmetry in competitive conditions. Banks are forced to comply with strict capital and reporting requirements, whereas fintech companies can operate in a more flexible regime. In the long run, this may lead either to tighter regulations for fintech or to the liberalization of the banking sector.

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From a macroeconomic perspective, the spread of electronic wallets helps increase the transparency of financial flows. The shadow economy's share shrinks, money circulation accelerates, and transaction costs drop. However, this also escalates the financial system's dependency on digital infrastructure. Any disruptions in payment platforms could entail systemic consequences.

Contrasting these advantages and limitations highlights the dual nature of electronic wallets. On one hand, they increase the efficiency of financial operations and broaden access to financial services. On the other hand, they create new risks and amplify competition within the banking sector. It is precisely this contradiction that determines the current development dynamics of the financial system.

CONCLUSION

The conducted analysis demonstrates that electronic wallets are no longer a peripheral element of the financial system. They have become one of the key drivers transforming the banking sector, impacting both revenue structures and customer behavior. These changes are systemic rather than temporary.

It was found that electronic wallets do not displace banks so much as they reshape their role. Banking institutions are gradually transitioning from the function of a universal intermediary to the role of an infrastructure and service hub. This process is accompanied by a decline in the share of fee income and a rise in the importance of digital services.

The practical significance of these results lies in the potential to use the identified trends when designing digital transformation strategies for banks. Ignoring fintech trends can result in a loss of competitive positioning, whereas integration with electronic wallets unlocks new opportunities for growth. Future research perspectives are tied to a more detailed analysis of bank-fintech interaction, as well as the evaluation of long-term risks, including cyber threats and regulatory updates. The financial system continues to evolve, and its future configuration will largely depend on how effectively innovation and stability can be balanced.

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