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DOI <https://doi.org/10.26661/2414-0287-2024-4-64-15>**BANK MANAGEMENT: DEVELOPMENT OPPORTUNITIES IN A CRISIS PERIOD****Tkachenko S.M.***Zaporizhzhia National University**Ukraine, 69011, Zaporizhzhia, Universytetska str., 66**space7770@ukr.net**ORCID: 0000-0002-3798-5902***Key words:**

financial infrastructure, financial risks, overcoming crisis in the banking sector, digitalization, crisis management, digitization, adaptation in wartime conditions, online banking, mobile applications, demand for digital services, stimulus for economic development.

The article examines the development possibilities of banking management in the crisis period, analyzes the development possibilities and investigates the critical importance of digitization and the introduction of innovative technologies in the banking sector of Ukraine in conditions of economic instability. It was determined that the digitalization of the banking sector is one of the key strategies for maintaining competitiveness and ensuring uninterrupted access to financial services in crisis conditions. It has been established that the implementation of digital technologies in the banking sector is not without difficulties and risks. Among the main problems that can be highlighted are cyber threats, fraud, insufficient level of government regulation, lack of uniform standards for digital services, uneven access to the Internet, as well as physical limitations of infrastructure in crisis conditions. These issues require further research and the development of new strategies to ensure the appropriate level of security and efficiency of digital solutions. It was determined that the digitalization of banking services also requires proper adaptation of bank management to new conditions. The application of digital solutions, such as mobile applications and online banking, requires a change in approaches to the management of financial institutions, an increase in the level of protection of personal data of customers, the development of infrastructure to ensure uninterrupted access to the Internet, as well as the integration of the latest technologies into the daily practice of banking management.

БАНКІВСЬКИЙ МЕНЕДЖМЕНТ: МОЖЛИВОСТІ РОЗВИТКУ В КРИЗОВИЙ ПЕРІОД**Ткаченко С.М.***Запорізький національний університет**Україна, 69011, м. Запоріжжя, вул. Університетська, 66***Ключові слова:**

фінансова інфраструктура, фінансові ризики, подолання кризи в банківській сфері, цифровізація, менеджмент в кризових умовах, діджиталізація, адаптація в умовах воєнного стану, он-лайн банкінг, мобільні додатки, попит на цифрові послуги, стимул для економічного розвитку.

У статті розглянуті можливості розвитку банківського менеджменту в кризовий період, проаналізовані можливості розвитку та досліджена критична важливість діджиталізації та впровадження інноваційних технологій у банківському секторі України в умовах економічної нестабільності. Визначено, що діджиталізація банківського сектору є однією з ключових стратегій для збереження конкурентоспроможності та забезпечення безперервного доступу до фінансових послуг у кризових умовах. Встановлено, що впровадження цифрових технологій в банківському секторі, не позбавлене труднощів і ризиків. Серед основних проблем, які можна виділити, є кіберзагрози, шахрайство, недостатній рівень державного регулювання, брак єдиних стандартів для цифрових послуг, нерівномірний доступ до Інтернету, а також фізичні обмеження інфраструктури в кризових умовах. Ці проблеми потребують подальших досліджень та розробки нових стратегій для забезпечення належного рівня безпеки та ефективності цифрових рішень. Визначено, що діджиталізація банківських послуг також вимагає належної адаптації банківського менеджменту до нових умов. Застосування цифрових рішень, таких як мобільні додатки та онлайн-банкінг, потребує зміни підходів до управління фінансовими установами, підвищення рівня захисту персональних даних клієнтів, розвитку інфраструктури для забезпечення безперебійного доступу до Інтернету, а також інтеграції новітніх технологій у щоденну практику банківського управління.

Statement of the problem

The crisis moments studied by the economy significantly affect the financial infrastructure of the country, which is a great threat to the banking sector and the economy in general. The banking system, which had previously undergone a series of trials and established robust operational algorithms under various conditions, now faces new challenges that surpass any previous trials. Many financial institutions have experienced serious issues, approaching liquidation, reorganization, or even physical destruction. At the same time, the ability of most banks to maintain stability is evidence of their resilience and high level of financial security. However, the trials are not over; military actions continue, and many challenges in the economic and banking sectors are still ahead, making this topic extremely relevant and important today. An especially crucial tool for developing banking management under these conditions is the widespread implementation of digitalization and digitization of banking services, considering that many Ukrainian citizens have been forced to leave the country, and many are in areas where it is dangerous to access banking institutions due to frequent air alerts during which bank offices cease operations.

Analysis of recent studies and publications

Research and Publications Given the aforementioned relevance of the crisis situation, an analysis of recent scientific research in the field of digitalization of banking services and mobile banking [1] under crisis conditions highlights the importance of this topic [2]. Publications, books, and articles dedicated to digitalization demonstrate that the implementation of cutting-edge technologies creates opportunities not only for providing the general population and bank clients with essential and modern services but also for ensuring the sustainable development of the entire banking sector [3].

Kopylova O.V., Pichugina Y.V., and Honchar K.O. in their work "Digitalization of the ukrainian banking sector: challenges and prospects" emphasize that digitalization of Ukraine's banking sector, while considering all potential risks, holds the potential for: improving the efficiency of all banking business processes, automating them, reducing operational costs and risks, enhancing resilience, and increasing profitability [4-6]. Bezruk D.I. in his work [7] identifies that, at present, there are still many gaps in the digitalization of the economic sector in Ukraine. The collective monograph edited by Haltsieva O.L. examines many digital technologies and their beneficial impact on the stability of the banking sector and services, and banking management [8]. Miroshnyk R.O. and Kukhta I.V. in their work highlight a range of problems and tasks whose resolution is crucial for further digitalization of banking sector services and adaptation to new economic conditions [9-10].

The topic of digitalization of Ukraine's banking sector has also been studied by researchers such as T. Oleshko, N. Kasyanova, L. Klyoba, N. Dobosh, Soroka, and others. Although there is a large number of scientific articles and other publications on this subject, its relevance is far from

exhausted; current times continue to present new challenges that require thorough investigation [11-12].

Objectives of the Article

The main objective of this research is to analyze current trends in the digitalization of banking management, with a focus on risks associated with both wartime conditions and contemporary economic development trends. This includes examining the impact of cutting-edge digital technologies on the efficiency of management processes within banks and assessing their ability to rapidly adapt to ongoing risks and uncertainties. Ultimately, this will enable the development of effective strategies to strengthen the financial and economic security of Ukraine's banking system during the war and in consideration of the needs for economic recovery after its conclusion.

The main material of the research

The modern banking system in Ukraine is undergoing profound changes due to the rapid development of information technologies (IT) and digitalization globally, and specifically in Ukraine. Economic instability, digital solutions have become critically important for ensuring the stability and accessibility of financial services. One of the most significant achievements of Ukrainian banks is the implementation of innovative technologies that allow users to manage their finances without physically visiting bank branches. Modern banking management is closely linked to the active adoption of cutting-edge developments, enabling individuals to independently open accounts, access banking services, pay utility bills, adjust financial transaction limits, and much more. This significantly simplifies the organization of such processes, increases trust in the banking system, and overall improves the economic climate in the country.

Mobile applications have become an integral part of financial services, providing convenient access to accounts, transfer capabilities, payment processing, card ordering, deposit placement, loan applications, and more. These technologies, which emerged before the onset of the full-scale conflict, received an additional boost for development precisely because of the crisis conditions. Not all Ukrainian citizens currently have the opportunity to visit bank branches or interact with managers in official institutions. It can be said that the crisis resulting from the war has more fully revealed to banks the possibilities offered by digital technologies. Therefore, Ukraine has the potential and the necessity to become a global leader in banking digitalization and IT services.

Recent events have acted as a catalyst for the accelerated adoption of digital technologies. However, an integral aspect of this process is the necessity to ensure a high level of security for financial transactions and to mitigate the risks of cyber threats and fraud. Innovative solutions such as the use of artificial intelligence for data analysis and enhanced cybersecurity, two-factor authentication (2FA) for strengthened account access security, regular updates and patches, and data encryption have become standard for modern banking services.

Online banking, which provides the ability to manage finances in real-time, is a key element of digitalization. Platforms such as Sense Bank, Monobank, PrivatBank, and others enable clients to perform a wide range of financial operations, including transferring funds, paying bills, investing, and obtaining loans, all without the need for physical presence at a bank branch. There are even projects beginning to work with cryptocurrency, such as Weld Money from Unix Bank. All of this requires active development, the implementation of security protocols for users, and a degree of flexibility in accessing various services, which will enhance trust in the banking sector as a whole and help shift financial transactions out of the shadow economy.

It is also clear that not everyone has complete trust in digital solutions and online banking, and not everyone has access to information about the full range of digital financial services due to the lack or insufficient development of unified standards and regulations for these issues. Additionally, there is a need to accelerate the development of infrastructure and ensure high-quality Internet access in the context of ongoing military actions and frequent power outages. An important issue is also the insufficient level of government regulation and the lack of adequate measures to counteract the risks faced by consumers. Despite these challenges, the indicators below show a growing popularity of online banking among the population.

According to the National Bank of Ukraine, over the more than two years of war, the number of transactions using payment cards issued by Ukrainian banks and financial institutions in 2023 was 7,912.5 million, with a total amount of 6,140.8 billion UAH. Of these, 91.9% of transactions by number and 90.4% of the total amount were conducted within Ukraine. Outside Ukraine, the share of transactions with payment cards issued by Ukrainian issuers was 8.1% by number and 9.6% by amount. For the pre-war year of 2021, the share of transactions abroad was 3.8% by number and 3.7% by amount. The increase in such payments indicates both that a significant number of Ukrainians are abroad and that there is a growing demand for these services.

Overall, the share of cashless transactions using payment cards by amount reached 65% of the total volume of payment card transactions in 2023. In the pre-war year of 2021, this figure was 61%. The share of cashless transactions by number reached 93.5% (compared to 90.1% in 2021).

Tokenized payment cards (NFC technology) also remain popular and are developing further. In December 2023, compared to December 2022, their number increased by 57% to 12.4 million. This means that approximately one in four active payment cards is tokenized (compared to one in six at the end of the pre-war year 2021). The trend is expected to continue into 2024. Thus, we see that banking management has even more active opportunities to leverage the latest digital innovations, which are in high demand among Ukrainians and visitors to our country. These innovations contribute to enhancing the competitiveness of Ukrainian banks in the international market and create new opportunities for the development of financial services and the economy.

The National Bank of Ukraine reports the following data: in the first quarter of 2024, the total number of successful electronic identifications using the BankID System of the NBU was 16.1 million, marking a 16% increase compared to the fourth quarter of 2023. This is currently the highest number of successful identifications for a quarterly period since the system began operations. During the first quarter of 2024, eight new service providers it is non-bank financial institutions operating in the online lending sector it is were connected to the system.

In the diagram below, we can visually observe the growth in both the total amount of transactions and the number of transactions for the first half of 2024 compared to the same period in 2023.

The National Bank of Ukraine also notes that the total number of accounts opened by users of payment services increased by 15.5% compared to the previous year, reaching 185.1 million units (as of January 1, 2023, there were 160.2 million units). Additionally, the number of users served remotely continues to rise. «Currently, more than two-thirds of all users with accounts at payment service providers manage these accounts remotely: 89.2% of businesses and 79.5% of individuals (2.9 million and 62.3 million clients, respectively)».

In Ukraine, there has also been a rapid development in the adoption of new technologies, such as QR codes for cashless payments or applications, cryptocurrency services, the popularity of online exchanges, electronic wallets, and more.

Thus, we can note that all the data indicates a growing demand for digital services, remote servicing, and services directly or indirectly related to the banking system (for example, authorization using BankID). Therefore, it is essential to approach the creation of new types of services, opportunities, and offers in a comprehensive and innovative manner to saturate the market and meet the demand from existing and new users. The task of banking management is to quickly adapt and respond to new changes and demands, as it involves the development and use of reliable and effective systems for managing all processes and relationships in the banking sector.

Overall, the digitalization of the banking system in Ukraine is a critically important task for banking management, both at the national level and for individual financial institutions. It is a key factor for banks to adapt to crisis conditions and ensure the stability of financial services and the economy. Digitalization allows banks to maintain competitiveness, enhance operational efficiency, and provide continuous access to financial resources even in the current crisis conditions, as evidenced by the statistics presented above.

Conclusions

The opportunities for the development of banking management in the crisis period were analyzed, and the critical importance of digitization and the introduction of innovative technologies in the banking sector of Ukraine in conditions of economic instability was investigated. Modern conditions push Ukraine to adapt to new realities, which becomes a serious challenge for banks, while

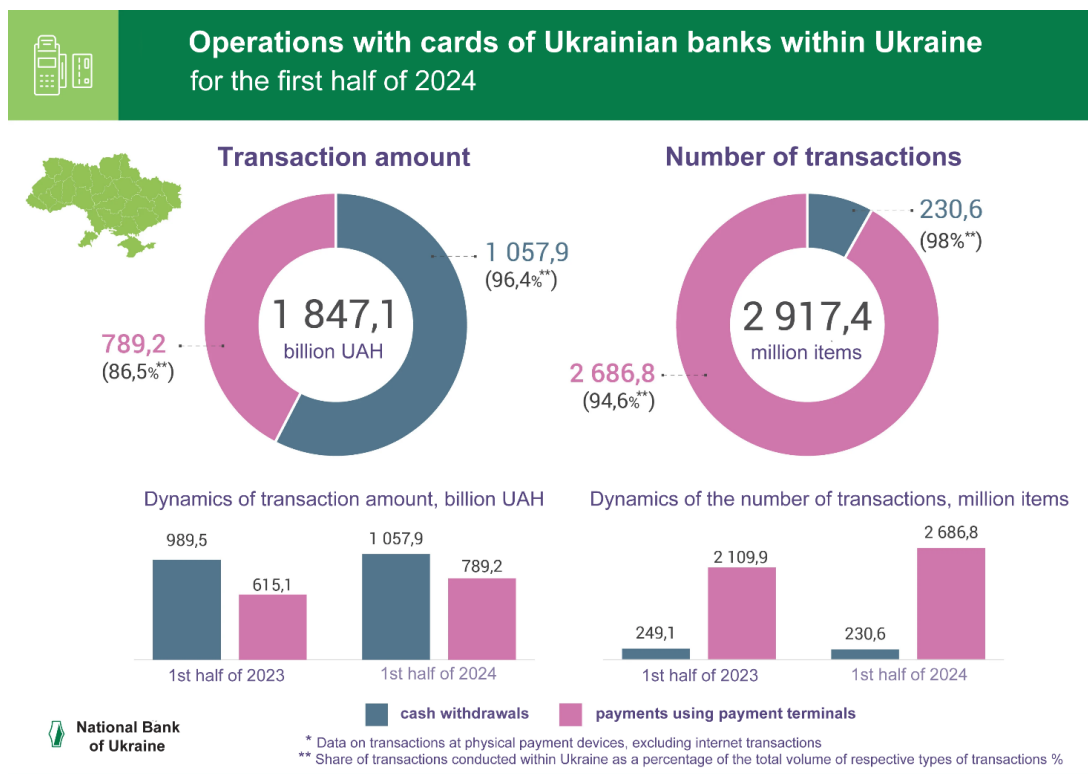


Fig. 1 – Transactions with cards of Ukrainian banks within Ukraine [3]

simultaneously revealing opportunities for development and increased efficiency through the active implementation of digital solutions. An analysis of the literature and recent studies indicates that the digitalization of the banking sector is one of the key strategies for maintaining competitiveness and ensuring uninterrupted access to financial services in crisis conditions. In particular, the latest technologies, such as mobile applications, online banking, artificial intelligence to analyze data and improve cyber security, as well as tokenized payment cards (NFC technology) significantly facilitate customer access to banking services, increase the efficiency of banking operations and reduce operational costs.

However, the implementation of digital technologies in the banking sector is not without difficulties and risks. Among the main problems that can be highlighted are cyber threats, fraud, insufficient level of government regulation, lack of uniform standards for digital services, uneven access to the Internet, as well as physical limitations of infrastructure in crisis conditions. These issues require further research and the development of new strategies to ensure the appropriate level of security and efficiency of digital solutions.

Looking at the data of the National Bank of Ukraine, one can see a significant increase in demand for non-cash transactions and remote financial services. This is the lever that can ensure the stable growth of the banking sector, since the increase in the share of non-cash payments helps to reduce the operational costs of banks, increase the transparency of financial flows and expand the client base. In addition, the introduction of digital technologies allows

banks to quickly respond to market changes, improve the quality of customer service, introduce new products and services, and ensure a high level of security of financial transactions. Thus, the development of non-cash payments and digital financial services becomes an important tool for increasing the competitiveness of banks and their resistance to external challenges, which is especially important in the conditions of modern economic and geopolitical risks.

Digitalization of banking services also requires proper adaptation of bank management to new conditions. The application of digital solutions, such as mobile applications and online banking, requires a change in approaches to the management of financial institutions, an increase in the level of protection of personal data of customers, the development of infrastructure to ensure uninterrupted access to the Internet, as well as the integration of the latest technologies into the daily practice of banking management.

Based on the analysis of scientific publications and data, it can be concluded that digitalization is not only a key factor in stabilizing the banking system of Ukraine in crisis conditions, but also a powerful stimulus for its further development. Innovative solutions can help strengthen the country's financial stability and increase its competitiveness at the international level.

However, to achieve such goals, further work in several directions is necessary. First, it is necessary to develop and implement effective government strategies and regulatory mechanisms to support safe and sustainable digitalization of the banking sector. Secondly, it is necessary to ensure the appropriate level of education and awareness of

the population regarding the possibilities and advantages of digital banking services, as well as the safety of using them. Third, banks need to continue to invest in new technologies and develop partnerships with IT companies to create innovative products and services.

Thus, the digitalization of the banking system in Ukraine can not only mitigate the impact of the crisis on the economy, but also become a driving force for its further development. The successful implementation of the latest technologies will ensure the availability and

security of financial services for a wide range of consumers, increase the efficiency of bank management, reduce operating costs, strengthen banks' resistance to external challenges and risks, and strengthen their position both on the domestic and international markets. At the same time, it is important to take into account possible risks and challenges, in particular in the areas of cyber security and regulation, and continue to adapt development strategies in accordance with new conditions and market needs in crisis conditions.

References

1. Miroshnyk R.O., Kukhta I.V. (2023). Digitization of the banking system of Ukraine in modern conditions. Vol. № 49, 2023. [in Ukrainian]
2. Tishchenko D.S. (2023). Digital information as a driver of economic development. Digital economy and economic security. Vol. 4. P. 38-45, 2023. [in Ukrainian]
3. Transactions with cards of Ukrainian banks within Ukraine, the first half of the 2024 year URL: <https://bank.gov.ua/ua/news/all/operatsiyi-z-kartkami-ukrayinskih-bankiv-v-mejah-ukrayini-i-pivrichchya-2024-roku>
4. Kopilova O.V., Pichuhina Yu.V., Honchar K.O. (2023). Digitization of the banking sector of Ukraine: challenges and prospects. Current issues in modern science № 5 (11), 2023. [in Ukrainian]
5. Oxford Learner's Dictionary. URL: <https://www.oxfordlearnersdictionaries.com/definition/english/digital-economy?q=digital+economy>
6. Markevych K. Digitization: benefits and ways to overcome challenges. Razumkov Center. URL : <https://razumkov.org.ua/statti/tsyfrovizatsiia-perevagy-tashliakhy-podolannia-vyklykiv> (дата звернення: 22.10.2022) [in Ukrainian]
7. Bezruk D.I. Digitization of business processes LTD «Epitsentr K» as a tool for their improvement. Business information. № 3 2024 URL: <http://www.business-inform.net/Doi:10.32983/2222-4459-2024-3-344-352> (September 9-10, 2021). [in Ukrainian]
8. Haltsova O.H. (2021) Digitization of the economy as a factor of economic growth: a collective monograph. Kherson: Publishing house «Helvetyka», 2021. 260 p. [in Ukrainian]
9. Shpylovyi B.V. (2016). The structure and components of the system of financial and economic security of banking institutions. Economy and society. Output № 2, 2016. C. 632-637. [in Ukrainian]
10. System BankID NBU in the third quarter of 2023: demand for use is growing. bank.gov.ua. URL: <http://surl.li/naydt>
11. Zaslavska O.I. Virtual banking: challenges and prospects. Business Inform. No. 4, 2020. C. 350–356. [in Ukrainian]
12. Sverdlyk Z. (2022). Cyber security and cyber protection: issues on the agenda in Ukrainian society. № 10, 2022. P. 175–188. [in Ukrainian].