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Development of new formats of banking activity in the conditions of digitalization

Abstract. Performing important functions for the economy, the banking sector forms the foundation for the development of the national economy, its stable functioning. In a competitive environment, there is a need to find ways to improve banking models, in particular, based on the use of digitalization achievements. In such conditions, new models of banking activity are becoming increasingly widespread. The purpose of the study was to study the impact of information and communication technologies, the active implementation of which is a sign of the digitalization process, on the banking sector of the economy and to study one of the manifestations of such impact - the development of a new model of banking institutions (neobanks). The object of the study is the banking sector and innovative models of banking activity - neobanks. The article examines the indicators of the functioning of the banking sector of Ukraine in recent years, identifies the conceptual foundations of the development of a new model of banking institutions - neobanks, reveals the differences of neobanks from traditional banking institutions with mobile banking and the advantages of such a model of banking activity. The theoretical basis of the study was the work of modern foreign and domestic researchers devoted to the study of the consequences of the introduction of innovative information and communication technologies in banking, the formation of neobanks - banking formations of a new model based on them. The study used statistical analysis, methods of logical generalization and systematization, methods of comparative analysis and content analysis. The analysis of the main indicators of the functioning of the banking sector of Ukraine in recent years made it possible to substantiate the importance for banking institutions of finding ways to improve their activities, in particular, based on the use of the achievements of the digital economy. The conceptual foundations of the development of neobanking were determined, with their division into technological, competency, mental and motivational. The differences between neobanks and traditional banks with mobile banking were identified according to key comparison features. The views of scientists on the advantages of neobanks were analyzed and those that should be considered debatable were identified. The conducted research creates a foundation for further development of solutions to improve the activities of neobanks as a new promising model of banking activity, the emergence of which is due to the influence of the active implementation of information and communication technologies.

Keywords: *digital economy, digitalization, banking sector, innovation, information and communication technologies, banking format, neobank, mobile banking*

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Introduction. The banking sector, provided it functions effectively, forms the foundation for the development of the national economy. Important functions of the banking system include the creation of money and regulation of the money supply in order to quickly change the amount of money in circulation, as well as a transformational function, which manifests itself in the mobilization of free funds from some economic entities and their transfer to other entities for use. In addition, it is difficult to overestimate the role of the banking sector in stabilizing the economy, primarily by supporting the stability of the national currency.

At the current stage of the formation of a digital economy in the country and in the context of a changing competitive environment, the stability of the banking sector requires improving the efficiency of both individual banking structures and the sector as a whole. One of the most promising areas in this context is the introduction of innovative information and communication technologies into the banking sector and the formation of a new model of banking activity on this basis.

Literature review. The impact of the introduction of information and communication technologies on the banking sector, in particular those that contribute to the development of new models of banking services (electronic banking and digital or neobanking), is the subject of scientific research by representatives from different countries, regardless of their geographical location.

Even in countries with low levels of digitization and economic development, local analysts emphasize the need for the gradual introduction of ICT technologies. For example, Wiredu J., Labaran U. I., Nketiah E., and Osibo B. K. conducted a study on rural banking in Ghana, in which they convincingly demonstrated that ICT has a strong positive impact on banking activities and therefore serves as a strategic tool for achieving competitive advantage in the banking industry. The researchers emphasize the importance of expanding the range and functionality of the technologies being introduced, supporting staff training and motivation, which will make the banking sector more competitive [1].

Chungu C. and Phiri J. found in their study significant positive linear relationships between customer satisfaction with electronic banking and key factors such as user interface, response speed, reliability, ease of use, and service efficiency. It has been established that focusing on improving specific problem areas, while maintaining and enhancing the positive aspects of electronic banking services, is important for the bank's continued success and competitiveness in the market [2].

The relationship between digital finance, information and communication technologies (ICT), and financial development in developing countries has been explored in the work of Dereje M. The study proves that the key factor in financial development in such countries is the integration of mobile banking and information and communication technologies. Particular emphasis is placed on the positive impact on financial development in countries where access to traditional banking services is limited. This is because mobile banking services are more effective than the traditional banking system in overcoming geographical barriers and providing access to banking services for underserved and unbanked populations. The author concludes that in order to promote the sustainable development of the financial sector in developing countries, it is important to prioritize strategic investments in digital financial platforms and ICT infrastructure, raise public awareness and financial literacy, and create regulatory frameworks that guarantee the security and confidentiality of digital financial transactions, and increase trust in digital financial services [3].

Jeyaraj S., Paramasivan C., Sumathi M., Silpa S. identify the following benefits of implementing information and communication technologies, in particular cloud computing technologies: reduced infrastructure costs, increased flexibility, processing efficiency, operational efficiency, high availability for improved customer service, advantages of using serverless services, flexibility and scalability, increased data security, improved competitiveness and dissemination of innovation, and ensuring business continuity. In addition, the authors examine the challenges of introducing cloud technologies in the industry, particularly those related to security and

confidentiality, data integrity, the complexity of supporting management and control of IT resources, the complexity of data migration, integration with legacy systems, service interruptions and the risk of non-compliance, cybersecurity threats, and the speed of cloud services. At the same time, researchers believe that financial institutions that embrace this transition will be better equipped to leverage new technologies, adapt to changing market conditions, and add value for customers and stakeholders. At the same time, banks should choose service and delivery models that best meet their needs for cost savings, operational flexibility, and pay-per-use when organizing cloud computing [4].

Kala Kamdjoug J. R., Ndassi Teutio A. O., Tchakounte Tchouanga, U., and Gueyie J.-P. conducted a study on the use of electronic banking in developing countries. The study examined how technological characteristics (perceived protection of personal information and perceived transaction security), service factors (perceived time savings, quality of service, and perceived cost savings), and trust influence the use of electronic banking. It was found that customers have a positive perception of electronic banking, demonstrating a fairly high level of trust in electronic banking services, as this type of interaction meets customer needs [5].

Rühl A., Palomo R., and Hervás M. examined the impact of new technologies on the European banking sector. The researchers emphasize that institutions operating in the financial sector are subject to many factors, including changes in customer behavior, which force them to constantly adapt. This transformation is facilitated by ever-increasing digitalization, which not only provides much more information than in the past, but also greater freedom in the use of electronic devices. The authors examine the transformation of the business model of banks based on the use of new digital technologies (such as open application programming interfaces (OpenAPI), big data processing technologies, artificial intelligence (AI), distributed ledger technology (Blockchain DLT), cloud computing, quantum computing, robotics, etc.), in an intelligent and networked way to respond to given environmental conditions, and also defines the approximate steps for changing such a business model in order to ensure effective cooperation between all interested parties seven days a week, 24 hours a day, through the use of all digital potential [6].

Flavia Alves examines the conceptual basis of the impact of new Internet technologies on the banking industry and changes in consumer behavior. The researcher has established that the growth of digitalization leads to changes in consumer behavior and banking habits, which, at the same time, are not the same for all segments of the population and to which the private and public banking sectors react differently. The introduction of information and communication technologies for the banking industry can create opportunities for expanding forms of lending, more complex savings mechanisms, and simplifying financial transactions with the click of a few buttons, instead of having to go to bank branches to obtain these services. The author emphasizes that reliable ICT can lead to expanded access to financial services in areas where the population is small or where geographical or security conditions are difficult to overcome, as well as provide the means for people to seek information to help them make better financial decisions [7].

Borole P. studied issues related to maximizing the impact of innovative technologies in financial services. The author convincingly proved that it is necessary to promote new ideas in the financial sector for the purpose of adaptation and further development [8].

Ekwonwune E., Egwuonwu D., Elebri L., and Uka K. recognize ICT as a tool for improving the banking system. They emphasize that the positive impact of their application in the banking sector is manifested in areas such as efficiency, qualification, reduction of long delays in queues, improvement of bank operations, and provision of banking services. The authors believe that banks should intensify their efforts to implement ICT in order to reap the numerous benefits associated with it. At the same time, due attention should be paid to ensuring high quality banking services and minimizing the negative effects of ICT by creating conditions for monitoring such services. In addition, there is a need to ensure proper training of personnel in the use and maintenance of

information and communication technology tools and to maintain software and hardware in working order [9].

Windasari N.A., Kusumawati N., Larasati N., and Amelia R.P. compare digital banking with mobile and internet banking in terms of registration, physical form, account verification, available functions, and financial advice. However, despite the fact that customers are already familiar with internet banking and mobile banking in their daily lives, fully digital banking is still new to many of them. The authors have identified a number of factors that positively influence the development of digital banking (economic value, perceived ease of use, social influence, company reputation, promotional campaigns, product characteristics, curiosity, and rewards). This industry is promising, as evidenced by the annual growth of digital banking service providers. This could expand access to financial services for the unbanked population in various countries [10].

Frame W. S., Wall L. D., and White L. J. emphasize that faster computing and widespread Internet adoption have led to a more efficient payment system, and related product innovations are rapidly spreading among a significant portion of the population. The authors link innovations in financial technology to the development and improvement of blockchain and distributed ledger technologies, artificial intelligence, etc. [11].

Kaur D., Chitsimran C., Mahajan R., Sidhu A.S. consider financial innovation as something new aimed at reducing costs, mitigating risks, and providing improved products, services, and tools that better meet the needs of financial system participants. The authors identify key priorities for improving the competitive position of banks in the modern financial services market in the context of digitalization, such as customer focus, changing internal culture, introducing necessary technologies, maximizing the use of customer data, and positioning for the future [12].

The problems of developing modern forms of banking institutions based on the use of digital technologies, in particular, neobanking in Ukraine, have also been considered by domestic researchers.

Most of them, in particular, Blashchuk-Deviatkin N., Kapitanchuk M. [13], Khodakevich S., Ponomarenko K., Zhuravlov O. [14], Hanziuk S., Dzhafarova H., Diomin M. [15], Matskiv O. [16], Tesliuk S., Matviichuk N., Derkach O., Korkh N. [17], Mykhailyk O., Nakonechna O. [18], Bukreieva D., Borodina A., Fastova P. [19], Breheda O. [20], Irshak O., Tvorydlo O. [21], Fedina V., Bohrinovtseva L. [22], Semenog A., Pakhnenko O., Shalda A. [23] note the emergence of a new model of banking activity—neobanking—as a result of digitalization and study its development in Ukraine. The authors characterize the concept of neobanking, analyze foreign experience in the development of this format of banking activity, identify the advantages and disadvantages of neobanks, the prospects for their development in Ukraine, and the factors that hinder it.

Despite the considerable attention that scientists devote to researching the significance of information and communication technologies for the banking sector, certain aspects of their impact on the emergence of new formats of banking activities caused by digitalization, in particular neobanking, require more thorough study.

Purpose, objectives and research methods. The study is devoted to identifying the impact of digitalization processes on the banking sector of the economy, which involves the active introduction of innovative information and communication technologies into the activities of banking institutions, and to studying one of the significant manifestations of this impact, namely the development of a new model of banking institutions – neobanks.

The study covered the following tasks:

- to examine the performance indicators of the banking sector in Ukraine in recent years;
- to identify the conceptual foundations for the development of a new model of banking institutions – neobanks;
- to identify the differences between neobanks and traditional banking institutions with mobile banking and the advantages of such a model of banking activity.

The work used statistical analysis methods in reviewing the state of banking activity in recent years, methods of logical generalization and systematization to determine the conceptual foundations for the development of neobanks as a new model of banking activity, and methods of comparative analysis and content analysis to compare neobanks with traditional banks and identify the advantages of this model.

Research results. Banking activities are constantly in the focus of scientific research, due to the role that banks play in the functioning of the economic system as a whole, the development of the country, and individual business units [24].

Before discussing specific transformations in the banking sector, it is advisable to analyze how the main indicators of banking activity in Ukraine have changed over the past five years (Table 1).

Table 1. Key performance indicators of banks in Ukraine

Indicators	At the end of the year					
	2019	2020	2021	2022	2023	2024
Number of banks, units	75	73	71	67	63	61
Assets, billion UAH	1493,3	1822,8	2053,2	2351,7	2945,0	3422,6
Return on assets, %	4,26	2,44	4,09	1,04	3,24	3,35
Return on equity, %	33,45	19,22	35,08	9,68	30,33	29,07

Source: constructed by the authors based on data from the National Bank of Ukraine [25]

An analysis of the Ukrainian banking sector based on the data in Table 1 shows that the number of banks has been steadily declining in recent years. At the end of 2019, there were 75 operating banks in Ukraine, while at the end of 2024, there were 61. In total, 156 branches were closed in 2024, 80 of which were private banks.

At the same time, the assets of banking institutions showed a stable upward trend. During the period under review, the value of banks' assets in Ukraine increased by UAH 1,929.3 billion (more than 2.2 times). The volume of banks' net assets increased by 7.6% in the fourth quarter and by 16.2% in 2024 (at the exchange rate fixed at the beginning of the period – by 7.0% and 13.1%, respectively).

At the same time, the efficiency of banks' operations was not particularly stable. Both return on assets and return on equity were prone to fluctuations. The lowest indicators of bank performance were in 2022 (return on assets for the year decreased from 4.09% to 1.04%, return on equity – from 35.08% to 9.68%). It can be argued that 2022 was a year of overcoming operational challenges for banks. The sector successfully navigated this period and adapted to the new operating conditions. This is confirmed by the fact that the last years of the period under review were marked by an improvement in profitability indicators.

Table 2 shows the financial results of banks in Ukraine.

Table 2. Financial results of banks in Ukraine, billion UAH

Indicators	2020	2021	2022	2023	2024
Income	250,2	273,9	357,5	446,7	507,3
Expenses	210,4	196,5	335,6	363,7	403,6
Net interest income	84,8	117,6	151,7	201,4	234,3
Net commission income	46,5	58,0	50,2	51,1	56,9
Net profit (loss)	39,7	77,4	21,9	83,0	103,7

Source: constructed by the authors based on data from the National Bank of Ukraine [25]

As can be seen from Table 2, the banking sector's revenues for 2020-2024 grew steadily, while expenses decreased slightly in 2021, followed by an annual increase. The lowest level of net profit in the sector was observed in 2022 and amounted to UAH 21.9 billion. In 2023-2024, the situation improved. In particular, in 2024, the sector received UAH 103.7 billion in profit, 39% of which was generated by Privatbank. The net profit of the banking sector increased by 24.9% compared to the previous year, by 4.7 times compared to the crisis year of 2022, and by 2.6 times compared to 2020.

Although the impact of the war on the banking sector was significant, according to analysts, banks adapted to the new conditions, including by transforming their operating model based on digitalization.

Matskiv O. rightly argues that today, all participants in the banking market are undergoing digital transformation, accompanied by process automation and remote service delivery. Accordingly, in order to maintain competitiveness, banks are transferring some of their services online to provide fast and convenient customer service [16].

Hanziuk S., Dzhafarova G., and Diomin M. note that modern digital technologies are increasingly being used in the provision of financial services, banks are ceasing to be just banks in the traditional sense and are going beyond the financial sector [15].

The active digitalization of the banking sector has been contributing for several years to a gradual decrease in the number of traditional branches where customers can come and carry out payment transactions [26]. Instead, there is a growing number of banks of a new model – neobanks, which provide their services exclusively online. This model of a bank is also called an Internet bank, virtual bank, digital bank, etc.

Some researchers (in particular, Blashchuk-Deviatkina N., Kapitanchuk M.) have concluded, based on an analysis of foreign countries, that neobanking has been successfully implemented and offers numerous advantages for consumers of banking services, making it easier and simpler to build both their businesses and their own financial plans, while operating many functions and using a large number of services and opportunities, depending on the chosen online bank [13].

Mykhailik O. and Nakonechna O. consider neobanks to be key players in the fintech market in Ukraine. According to the researchers, the success of the further development of neobanks is based on three important factors: the state of innovation and technological progress, the rapid development and implementation of digital banking operations, and the use of the bank's existing assets [18].

Breheda O. rightly points out that for Ukraine, the development of digital banking is not only a response to the demands of the times, but in some cases, a matter of survival for both businesses and the population. Living in a state of war has an impact on behavior, life, and business. Factors such as power outages, air raid sirens, and a significant number of people living abroad are additional incentives for the development of digital banking and increased accessibility of banking services anywhere and at any time [20].

If we consider the foundations of neobanking development from a conceptual point of view, we believe that they lie in four main areas: technological, competence, mental, and motivational (Fig. 1).

Design improvements in computer and mobile technology and enhancements in embedded software have contributed to the development of a number of features and characteristics in such devices that have significantly expanded their functionality. Recently, there has been rapid development in information and communication technologies, particularly those related to the improvement of Internet capabilities, the improvement of software interfaces, the simplification of data processing, the development of artificial, virtual, and augmented reality, and the automation and robotization of individual processes. All this has had a significant impact on the banking sector, creating the basis for the transformation of existing banking service models into fundamentally new,

innovative ones. Thus, the technological basis for the emergence and development of neobanks is the expansion of the capabilities of computer and mobile technology, as well as the development of innovative information and communication technologies. It is these aspects that have created the basis for the intensification of digitalization processes in the economy, which has given impetus to a gradual shift in focus from the functioning of economic entities in physical space to virtual space.

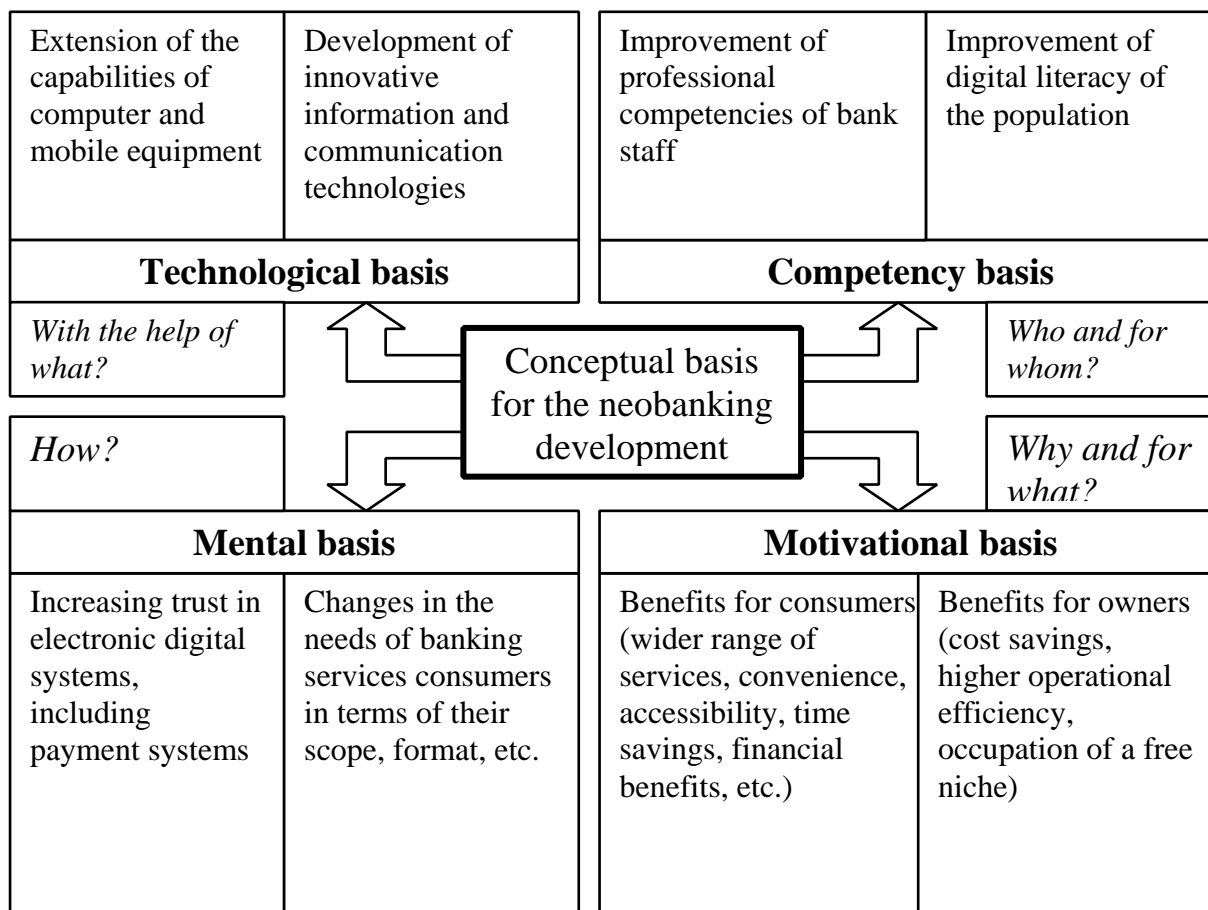


Figure 1. Conceptual foundations for the development of neobanking as a new format for banking activities
Source: developed by the authors

The gradual improvement of equipment and technologies has led to certain challenges for society. On the one hand, employees had to acquire the relevant skills to apply innovations in their work, which required continuous training of bank employees and the development of the necessary knowledge and skills to apply them in practice. On the other hand, obtaining any services in the virtual world, including banking services, is only possible if users—the customers of such banks—have sufficient digital skills. Thus, we can talk about the competence-based foundation for the development of neobanking, which is represented by the improvement of the professional competencies of bank personnel and the improvement of the digital literacy of the population.

One of the most important aspects of implementing any change is undoubtedly overcoming resistance to change caused by the peculiarities of human psychology. In the context of our study, we can talk, first of all, about overcoming distrust of electronic digital systems, which is a difficult task, since the development of digital technologies has not always been accompanied by adequate improvements in cyber security technologies, and the population has concerns about whether it is safe and confidential to place their data on certain Internet platforms. Despite numerous cyber threats, more and more people trust mobile banking applications and, accordingly, trust in new

banking models is growing. At the same time, consumer demands regarding the scope and format of banking services are undergoing a transformation. More and more people are seeking to minimize the time spent on banking transactions and are interested in the possibility of using new financial services. It is precisely the increase in trust in electronic digital systems and the change in consumer demand for banking services that form the mental basis for the development of neobanking.

It should be noted that technological, competence, and mental foundations will not be decisive in the absence of a motivational basis for the development of a new banking model. The motivational basis is determined by the advantages of neobanks over traditional banking structures for both customers and owners. In our opinion, the main advantages for neobank customers are the accessibility of services, a wider range of services, time savings, and financial benefits. For owners, the key advantages are cost savings in certain areas, higher operational efficiency, and the opportunity to occupy a vacant niche in the banking services market.

Discussion. Most researchers' studies confirm the role of improving equipment and technologies, employee competencies and digital literacy, changing mental attitudes and consumer demands for the emergence and development of new activities or the transformation of traditional activities with the construction of a new, more efficient model. This is also true for the banking sector.

Table 3: Comparison of a neobank with a traditional bank

Comparative features	Traditional bank with online banking	Neobank
Physical form	Has physical branches	No branches
Customer registration	Through bank branches	Fully online
Account opening	Often requires a visit to the bank	Online, via mobile application
Type of bank card	Physical card	Virtual card, optional receipt of a physical card
Bank card issuance	With bank employees	No contact with a bank employee
Receiving a bank card	In branch or by mail	Delivery by a method chosen by the client
Communication with customers	Physical contact, online in mobile app, contact center, partly through chatbots and robot advisors	Exclusively online without physical contact, widespread use of chatbots and robot consultants
Service channels	In branch and online	Online only
Format of financial advice	Provided in branch	Provided in the application
Products	Standard banking products	Innovative personalized products, including the use of new financial instruments
Access to services	Partially round-the-clock, some services according to branch opening hours	Fully round-the-clock
Flexibility, speed	Flexibility and speed are moderate	Flexibility and speed are high
Financial aspects for the customer	Higher fees, lower interest rates on deposits, less attractive lending terms	Minimal or no fees, higher interest rates on deposits, more favorable lending terms
Document flow	Paper and electronic	Electronic
Target audience	Wide	"Digital generation" (population with a sufficient level of digital literacy and a high level of acceptance of digitalization achievements)

Source: compiled by the authors based on [1-23]

Given the decisive importance of the motivational basis for the development of neobanking, it is the definition of the advantages of neobanking compared to traditional banking structures that arouses the greatest interest and seems to be the most controversial issue.

The systematization of the views of foreign and domestic scientists has made it possible to identify the distinctive features between neobanks and traditional banks, which can be done based on a number of characteristics, including physical form, customer registration, account opening, type of bank card, bank card application and receipt, communication with customers and service

channels, format of financial advice, products, access to services, flexibility and speed, financial aspects for the customer, document flow, and target audience.

The main difference between neobanks and traditional banks is that neobanks do not have branches, as neobanks operate exclusively via the Internet. Other features of neobanks are also related to this. In particular, while a traditional bank usually registers clients and opens an account at a bank branch, a neobank does so online via a downloaded mobile application.

Traditional banks issue physical bank cards to their customers, while neobanks issue virtual cards. Only at the client's additional request can a neobank issue a physical analog of a virtual card. As for the direct issuance of a bank card, in a traditional bank it is carried out with the mandatory participation of bank employees, while in a neobank contact with bank employees is not required to issue a card.

Customers of traditional banks most often receive a physical bank card at a branch (in some banks, it can be delivered by mail at the customer's request). In non-banks, customers do not have to visit a branch to receive a bank card; they simply need to specify a convenient method of delivery.

A traditional bank communicates with customers both through direct contact between them and a bank employee, and online in a mobile application, through a contact center, and partially through chatbots and robot consultants. The difference between non-banks is that they exclusively communicate online without physical contact, but with the widespread use of chatbots and robot consultants.

There are also differences in customer service channels. Traditional banks provide banking services both in branches and online, while non-banks use only online services through various means of communication. This also applies to obtaining financial advice, which a traditional bank usually provides directly at a bank branch, while a non-bank provides only online customer advice.

It is also important to take into account the difference in banking products available to clients of neobanks and traditional banks. While traditional banks offer standard banking products to their clients, neobanks pay more attention to the development of innovative personalized products, including those involving the use of new financial instruments. For example, one of the most promising areas of neobanking development is the integration of cryptocurrency services. Today, more and more neobanks are offering their users the opportunity to buy, sell, and use cryptocurrency for everyday transactions.

Due to the absence of a specific location, minimization of fixed costs for maintaining offices and other similar purposes, neobanks are considered to be more flexible and able to respond more quickly to certain changes in their external environment, which also distinguishes them from traditional banks.

Savings in certain areas of operating expenses create the basis for setting the fee for banking services at a minimum level or even waiving it altogether. In addition, this creates an opportunity for non-banks to set higher interest rates on deposits and more favorable lending terms.

A certain difference is the absence of paperwork in neobanking, as all documents are executed electronically in compliance with the client's identity identification protocols.

It should be noted that traditional banking is aimed at a wide audience. Customers of such banks do not need additional skills to use banking services. Neobanks are more focused on the so-called "digital generation" - the population with a sufficient level of digital literacy and a high level of acceptance of digitalization achievements.

All of these differences are the basis for the advantages of neobanks compared to traditional banking institutions. Scientific studies present different views on what can be considered an advantage of neobanks. The systematization of such views using content analysis allowed us to formulate relevant hypotheses about the existence of an advantage of neobanks compared to traditional banks and to confirm them or, based on the search for counterarguments, to define them as debatable (Table 4).

Table 4. Advantages of non-banks compared to traditional banks

Hypothesis on the existence of an advantage of non-banks compared to traditional banks	Percentage of mention, %	Conclusion
Accessibility (including round-the-clock access, overcoming geographical barriers, possibility of use while traveling around the world)	67,2	The hypothesis is accepted
Wider range of services, including with the use of innovative tools	50,0	The hypothesis is accepted
Time saving	48,3	The hypothesis is accepted
Improved services (increased efficiency and quality of service, transaction speed, including through process automation, improved communication)	46,6	The hypothesis is accepted
Simplification of banking services for customers, convenience for customers	41,4	Recognized as controversial due to the presence of a wide range of people with low levels of digital literacy
Constant access to data for control purposes, ease of control and monitoring by the customer	34,4	Recognized as controversial due to the provision of similar services by traditional banks with mobile banking
Economic value for the consumer, including lower service and commission fees, higher interest rates, favorable lending terms	31,0	The hypothesis is accepted
Absence of paperwork, in some studies, the related advantage is minimization of document management costs	29,3	The hypothesis is accepted
Saving the bank money (including through lower infrastructure costs, reduction of certain types of expenses)	29,3	The hypothesis is accepted
Operational flexibility, transformation of services to meet customer needs, personalized approach	15,5	The hypothesis is accepted
Confidentiality	8,6	Recognized as controversial due to the fact that confidentiality is a requirement for any bank, not just a non-bank
Reliability	3,5	Recognized as controversial due to the lack of proven experience in Ukraine regarding the greater reliability of such structures compared to traditional banks
Simplified registration procedure	3,5	Recognized as controversial due to its local nature

Source: compiled by the authors based on sources [1-23]

The most frequently mentioned advantage of neobanks is accessibility, which includes both round-the-clock access to the full range of banking services and the ability to use services regardless of the client's location (in areas where access to traditional banking services is difficult, or when traveling around the world, etc.) The main conditions for using the services of neobanks are the availability of a device with access to the Internet (any digital media - smartphone, tablet, personal computer), and for cash withdrawals - the availability of an ATM that accepts Visa and MasterCard worldwide without fees. This advantage seems to be the least controversial, and the hypothesis that neobanks have it over traditional banks can be considered proven.

About 50% of researchers emphasize the wider range of services provided by neobanks, including the use of innovative tools. In particular, Irshak O., Tvorydlo O. note that neobanks are characterized by the presence of such functions as: traditional virtual payment card; mobile deposits; individual payments using personalization through phone numbers, emails or identification in social networks; mobile budgeting tools and digital receipts online [21].

Fedina V., Bohrinovtseva L., referring to the Global FinTech Survey, identify the following most popular non-bank services among the population:

1. Online payments (84% of financial institutions).

2. Making money transfers (68% of financial institutions).
3. Personal finance transfers (60% of financial institutions).
4. Transfers of private loans (56% of financial institutions).
5. Opening deposit and savings accounts (49% of financial institutions) [22].

These services are also available to clients of traditional banks. At the same time, as O. Bregeda rightly notes, banks are considering the possibility of providing non-financial services to customers that affect the welfare of consumers and their loyalty to the bank [20].

At the same time, some scholars emphasize the wider opportunities for non-banks to use new tools (P2P lending, crowdfunding platforms, financial robots, cryptocurrencies, and other tools) [13, 15, 17, 23].

Thus, the hypothesis that non-banks have an advantage in terms of a wider range of services, including those related to the use of innovative instruments, is recognized as valid.

Among the most frequently mentioned advantages of non-banks is the advantage of saving time for customers (48.3%). The researchers explain this by saying that neobank customers do not spend time visiting a bank branch or waiting for it, since all services are available to them around the clock at any time and in any place. So this hypothesis is also confirmed.

About 46.6% of researchers point to the improvement of services as an advantage of non-banks, which is manifested in increased efficiency or quality of service, faster transactions, including through process automation, and better communication with customers. Again, this is due to the use by non-banks of the latest technologies that allow them to serve customers more quickly, process large amounts of data, automate them, use modern mobile applications, and provide services using robot consultants. In our opinion, the validity of this hypothesis is beyond doubt.

Simplification of banking services for customers, customer convenience is mentioned as an advantage of non-banks in 41.4% of surveys. Indeed, for people with a sufficient level of digital literacy (the so-called “digital generation”), the use of mobile applications is not difficult. However, the level of digital literacy of certain categories of the population is unsatisfactory, which limits their ability to use unbanked services. In particular, in Ukraine, scholars identify the insufficient level of digital literacy as one of the factors that slow down the digitalization process in general and the development of unbanking in particular. Thus, this hypothesis is debatable.

Another advantage for customers in 34.4% of the surveys is the customer's constant access to their own data for control and monitoring purposes. Indeed, neobanks provide such an opportunity. However, in today's environment, most traditional banks have their own mobile applications that also allow customers to monitor their transactions and account status. So, of course, this opportunity is a plus for customers, but the question of whether it is an advantage of neobanks compared to traditional banks is, in our opinion, not well argued.

Scholars often focus on the economic value of banking services provided by non-banks to consumers. By economic value, we mean more attractive financial conditions for clients of neobanks (lower fees, higher interest rates, favorable lending terms), the primary reason for which is the improvement of operating procedures by neobanks and relative savings in certain areas of expenditure compared to traditional banks.

In our opinion, the absence of paperwork and the associated minimization of document management costs can be reasonably attributed to the advantages of non-banks. This advantage was mentioned in 29.3% of the surveys.

Also, 29.3% of studies point to such an advantage of non-banks as saving money for the bank (due to lower infrastructure costs, lower certain types of expenses). This hypothesis is fair and creates opportunities for improving the operational efficiency of non-banks.

Operational flexibility, transformation of services to meet customer needs, and personalized approach were identified as an advantage of neobanks in 15.5% of the surveys. Indeed, to compensate for the lack of communication with customers in the branch, neobanks usually pay a lot

of attention to studying the needs of their customers, including using artificial intelligence, and developing personalized products for them.

As for the confidentiality of non-banks (noted in 8.6% of surveys), confidentiality is a requirement of any bank. In addition, neobanks face a wider range of cyber threats, which require constant strengthening of their cybersecurity.

As for the greater reliability of neobanks, which is defined as an advantage of neobanking in 3.5% of studies compared to traditional banks, there is no evidence base for this statement in the domestic history of the banking sector, as neobanking is a relatively new model of banks for our economy.

The simplification of the procedure for opening non-banks as their significant advantage was emphasized by 3.5% of researchers in their studies. This is due to the fact that the study analyzes research from different countries with different regulatory conditions for establishing non-banks.

As for domestic research, Semenog A., Pakhnenko O., Shalda A. emphasize the existence of legislative restrictions on licensing such activities [23]. Some researchers generally point to the absence or imperfection of legislation on licensing and regulation of neobanks as one of the key barriers to their spread in Ukraine [19, 22].

Some scholars suggest several possible options for opening neobanks. For example, Blashchuk-Deviatkina N., Kapitanchuk M. determines that currently the most common ways of neobanking development are two: 1) obtaining a banking license independently; 2) operating on the basis of one of the existing banks [13].

According to the law, neobanks must either obtain a full banking license or register as a payment institution or financial company.

However, the second option is more popular. This is due to the fact that, as O. Bregeda correctly notes, Ukraine, unlike some countries, does not have a simplified banking license for non-banks, which makes the first option resource-intensive [20].

Depending on the option chosen, the registration procedure will differ, so it is unreasonable to say that there is such an advantage of non-banks compared to traditional banking institutions as simplification of the opening procedure.

Conclusions. Thus, it can be said that the operating conditions of banking institutions encourage them to look for ways to improve their operations. The most relevant in this context is the intensification of the introduction of innovative information and communication technologies, which leads to the emergence of neobanks - institutions of a new format engaged in banking activities.

At the same time, despite the advantages of neobanks compared to traditional banks, there are also a number of factors that hinder their development, in particular, those related to the existing regulatory framework, the level of public trust in such institutions, the level of digital literacy of the population, high competition with traditional banks, the need to constantly improve mobile applications and software of neobanks, as well as the problem of ensuring an adequate level of cybersecurity, etc.

Further research should focus on the reliability and sustainability of the new model of banks and identify ways to improve their functioning.

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Розвиток нових форматів банківської діяльності в умовах цифровізації

Анотація. Виконуючи важливі для економіки функції, банківський сектор формує фундамент для стабільного функціонування та розвитку національної економіки. В умовах конкурентного середовища виникає потреба пошуку нових форматів ведення банківської діяльності, зокрема на основі використання досягнень цифровізації, які набувають дедалі більшого поширення. Метою дослідження стало вивчення впливу на банківський сектор економіки інформаційно-комунікативних технологій, активне впровадження яких є ознакою процесу цифровізації, та вивченню одного з проявів такого впливу – розвитку нового формату банківських установ (необанків). Об'єктом дослідження є банківський сектор та інноваційні моделі банківської діяльності – необанки. В статті проаналізовано показники функціонування банківського сектору України за останні роки, визначено основи розвитку нової моделі банківських установ – необанків, виявлено відмінності необанків від традиційних банківських установ із мобільним банкінгом та переваги такої моделі банківської діяльності. Теоретичним підґрунтям наукового пошуку стали роботи сучасних іноземних та вітчизняних дослідників, присвячені вивченню наслідків впровадження інноваційних інформаційно-комунікаційних технологій в банківській діяльності, формування на їх основі банківських формувань нової моделі. В ході дослідження використано статистичний аналіз, методи логічного узагальнення та систематизації, методи компаративного аналізу та контент-аналізу. Аналіз основних показників функціонування банківського сектору України останніх років дозволив обґрунтувати важливість для банківських установ пошуку шляхів вдосконалення своєї діяльності, зокрема на основі впровадження різних цифрових інструментів. Визначено концептуальні основи розвитку необанкінгу із їх поділом на технологічні, компетентнісні, ментальні та мотиваційні. Виокремлено відмінності необанків від традиційних банків із мобільним банкінгом за ключовими ознаками порівняння. Проаналізовано погляди науковців на переваги необанків та визначено такі, які слід вважати дискусійними. Проведене дослідження створює фундамент для подальшої розробки рішень щодо вдосконалення діяльності необанків як нового перспективного формату банківської діяльності, виникнення якого обумовлено впливом активного впровадження інформаційно-комунікаційних технологій.

Ключові слова: цифрова економіка, цифровізація, банківський сектор, інновації, інформаційно-комунікаційні технології, формат банківської діяльності, необанк, мобільний банкінг

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