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 Research Article

DIGITAL FINANCIAL SERVICES IN THE BANKING SYSTEM: PROGRESS AND MEETING UPCOMING CHALLENGES

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ABSTRACT

The article examines the key aspects of the digital transformation of the banking sector in the context of large-scale changes taking place in the financial sector in recent decades and forming a new financial reality.

KEYWORDS

Banking sector, digital technologies, digital transformation, banking risks, cyber risk, ecosystem, diversification of the banking system, digital financial services.

INTRODUCTION

Today, each of us has the opportunity to do most of our work at home, with just a phone in our hand. You can also open a mobile application or go to the official website of any organization and get the necessary information, place an order,

make a payment, and even send a complaint. There are programs and devices that allow you to carry out operations in a matter of seconds, but previously this took months, and you often had to stand in line for days.

All this is the result of the development of information and communication technologies (ICT), digitization of information, consolidation of disparate data from paper media into electronic databases. The rapid penetration of ICT into our lives has sharply increased the globalization of world economic relations and competition in the market for suppliers of goods and services, including financial ones.

The banking system also continues the widespread introduction of information and communication technologies in accordance with the requirements of modern times, and thus the automation of many banking services is carried out. Now you can receive almost all banking services instantly using your mobile phone or special devices, unlike, say, a few years ago.

The “Strategy for Reforming the Banking System of the Republic of Uzbekistan for 2020-2025”, signed by the President on May 12, 2020, identified such priority tasks as creating the necessary conditions for the widespread introduction of modern information and communication technologies, automation of business processes of commercial banks and expansion remote banking services. In the process of corporate transformation of

commercial banks in the field of introducing modern information and communication technologies, it is planned to implement the following measures [1]:

- expanding the number and coverage of remote banking services, including contactless payments;
- widespread use of a scoring system, remote identification and a credit conveyor;
- strengthening the information security of banking information and systems;
- widespread introduction of new concepts and technologies in the banking sector (fintech, digital banking).

These steps are aimed at developing the digital economy in the country, digitalizing banking services to ensure rapid growth of the economy of Uzbekistan, accelerating the country’s integration into the world economy and the free market along with economically developed countries.

Digitalization of banking services is the establishment of relationships between the bank and the client based on digital information and communication technologies. As bank clients use financial services, they begin to understand how important the role of ensuring convenience,

quality and speed of service, saving time and reducing operating costs, and electronic document management is. Accounting and management systems are being integrated, and a CRM (Customer Relationship Management) customer relationship management system is being created.

It used to be difficult to contact a bank and use services, especially in remote areas. Modern digital financial services have made it possible to effectively reach the population and business entities in remote and sparsely populated areas where opening bank branches is unprofitable.

Through digital changes, the business models of banks are being optimized, the banking and payment segment is developing - from remote banking services to changes in the field of financial transactions.

Literary analysis. The issues digital financial services in the banking system have been covered in detail in scientific studies of many economists and specialists. Digitalization of the banking system is studied with great attention by theorists and practitioners. In particular, K.Skinner [2] and B.King [3] revealed the conditions for creating a digital bank, advantages,

problems and new prospects. The Massachusetts Institute of Technology prepared the report "Digital banking manifesto: The end of banks?" It analyzes digital banks from the point of view of bank clients and investors. J.Cronk and V.Dubey studied the experience of digitalization in the process of transformation of financial services and fintech innovation in a digital bank [4].

The ecosystem of the digital economy was studied by L.Chaco. N.Furr, A.Shipilov, M.G.Jacobides et al. The novelty and lack of knowledge of this topic increase the interest of young scientists and practical specialists in it [5-7].

We offer an analysis of the principles of improving the financial mechanism of banking system on the research of the above scientists.

Research methodology. During the research process, analysis and synthesis, a systematic approach, comparison, categorization, grouping, absolute and relative quantitative methods of statistical and financial analysis were used.

Analysis and results. The transition to providing banking services in electronic format and creating convenience for the population certainly increased competition. In turn, as competition increases, so does the need to take advantage of

new opportunities in information and communications technology.

Thus, the digitalization of the economy has increased competition in the financial services market between banks and non-banking entities. Customers now have the opportunity to choose where and when to use financial services. The result of studying the client's needs is that banks open 24-hour offices (24/7). In accordance with these needs, electronic banking technologies offered in the financial market are developing rapidly. Examples are electronic payment systems, electronic money, remote banking services, including online banking products, banking terminals and automated banking centers.

The use of digital financial technologies optimizes the possibility of active cooperation between the government, payment service providers and clients. Constant analysis of customer needs and requirements leads to the introduction by banks of new ways of providing services and the creation of new attractive products.

It should be noted that the pandemic has also impacted the rapid development of digital financial services. Before the start of quarantine,

the population was less interested in remote banking, preferring to come to the bank and solve the problem "on the spot." Only a small number of bank clients used mobile applications and software for remote banking services. Residents who could not leave their homes due to quarantine were in dire need of remote banking services. We began to search, study, and, if necessary, use the desired service through electronic channels. This encourages banks to pay more attention to electronic applications, improve remote services, and mobile applications.

In other words, the digitalization of the economy not only creates new opportunities for banks, but also encourages them to look for new ways to attract customers by increasing competition, creating favorable conditions for customers, and providing cheap and high-quality financial and payment services.

Results of digitalization of the payment system. Over the past three years, effective work has been carried out to radically improve the activities of commercial banks, establish full-fledged interaction with the population and business, and mass introduction of remote banking services. As a result, the use of modern technologies is

expanding - remote banking technologies, such as the Internet and mobile banking, which are convenient for bank clients.

Today, the development of digital financial services has become an important direction in the development of the country's banking and financial system. The regulatory framework of the industry is being improved, the development of payment infrastructure is being encouraged, and the functioning of payment organizations (fintech companies) specializing in providing remote banking services is expanding.

With the adoption of the Law of the Republic of Uzbekistan "On Payments and Payment Systems", the service infrastructure of payment system operators operating in the country has increased sharply. In addition, 28 payment organizations specializing in providing digital financial services

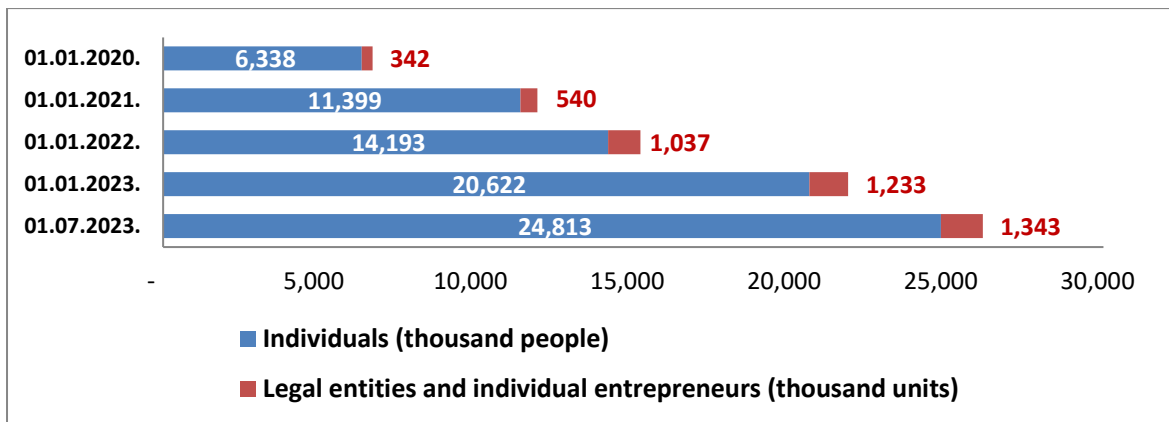
are registered. In order to develop contactless payments, the retail payment system HUMO was created, which fully complies with international standards, which, in turn, has created a competitive environment in the field of bank cards.

Currently, all basic banking services for individuals have been introduced into mobile applications of banks, including making payments, blocking (unblocking) a bank card, receiving a microloan (credit), online deposit transactions, and online conversion.

As of July 1, 2023, the number of users of remote service systems increased by 4.2 million people compared to the beginning of the year 2023. (19%) and amounted to 24.8 million users (Graph 1).

Graph 1

Users of remote banking services



In addition, for the convenience of users under quarantine restrictions, a mechanism for issuing bank cards was introduced based on an online application sent through mobile applications (websites) of banks, followed by the necessary identification when delivering a bank card to the client at his residence address.

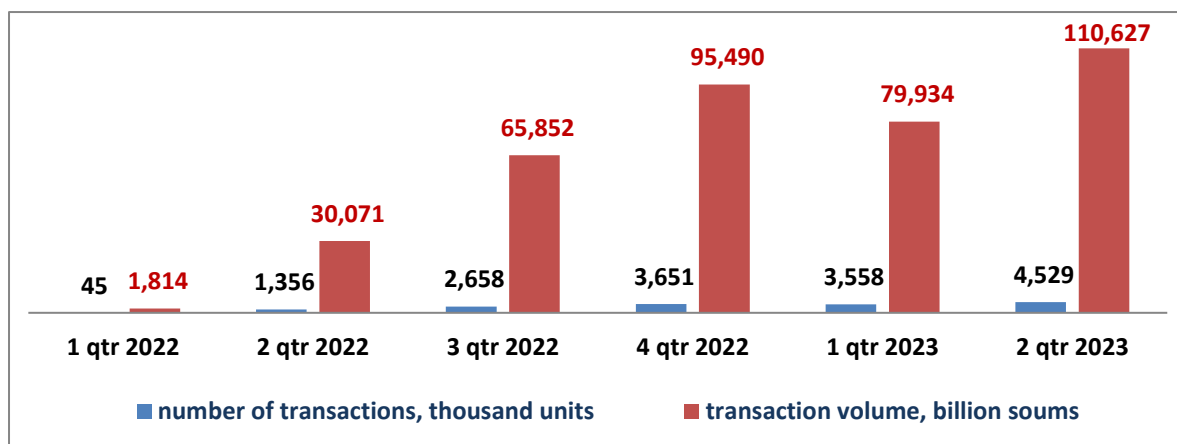
Over the 6 months of 2021, bank clients - individuals, through mobile banking applications, carried out operations to register online deposits (6.7 trillion UZS), online conversion (3.6 trillion UZS), and receive online microloans (1.5 trillion soums), loan repayments (0.4 trillion soums), other payments (to the budget, for utilities, communications, etc.) in the amount of 0.4 trillion soums.

The launch in 2020 of another interbank payment system - the “Instant Payment System” of the Central Bank - allowed legal entities and individual entrepreneurs who are clients of commercial banks to make payments 24/7 through remote service systems. Last September, the “Instant Payment System” created the ability to transfer budget and tax payments to the Treasury of the Ministry of Finance, as well as make payments from loan accounts 24/7.

As a result, from the first half of this year. 8.08 million transactions worth 127 trillion UZS were carried out through the Instant Payment System, of which more than 1,086 thousand payments to the budget amounted to 4.3 trillion UZS. (graph 2)

Graph 2

Operations carried out through the “Instant Payment System” of the Central Bank



To create innovative services, the Tap-to-phone system (commercial name “Onetouch”) was introduced, as a result of which it became possible for business entities (including self-employed persons and those providing delivery services) to receive payments via smartphone via the NFC system.

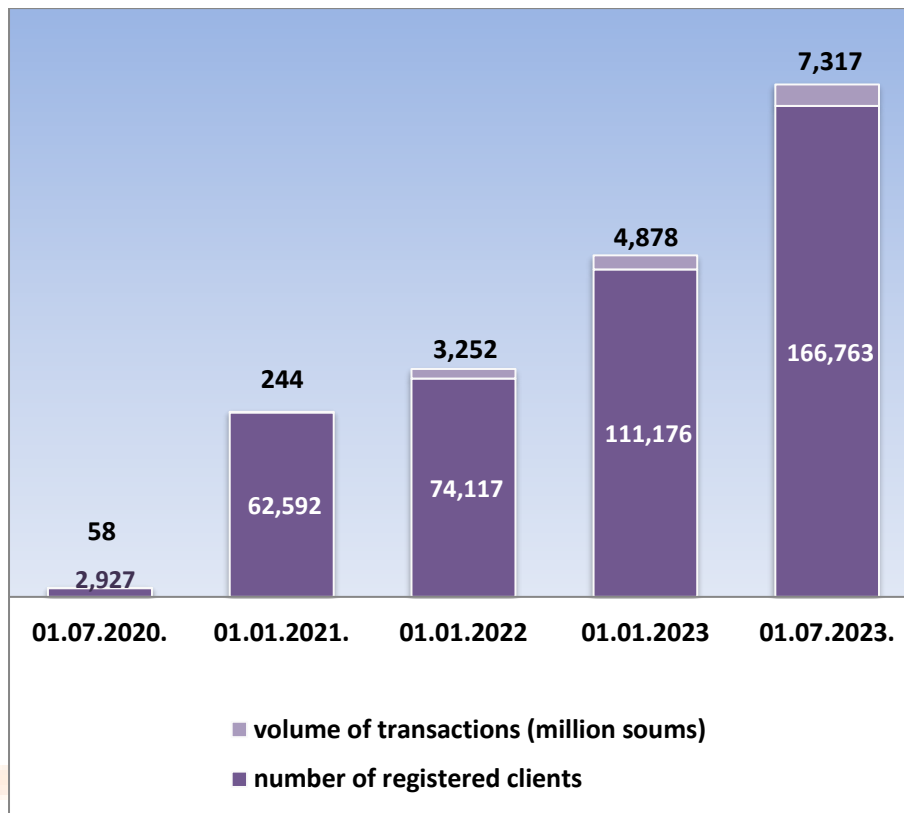
As part of the expansion of contactless payment technology, as well as for the convenience of the population, a service has been implemented to make payments at retail outlets and provide paid services without using a bank card through the HumoPay program (NFC system) installed in mobile applications.

In addition, in 2020, the Central Bank launched an information system for instant payment QR-online, which provides the opportunity to make payments for goods and services using funds on a bank card without directly using a bank card and payment terminal. To use it, subjects of trade and service provision contact commercial banks and receive a QR code generated on the basis of existing bank details, and buyers are able to pay for goods and services by scanning (“reading”) this code using their mobile applications.

To date, more than 166 thousand business entities are provided with QR codes (stickers) of the QR-online information system (Graph 3).

Graph 3

The number of clients registered in the QR-online system and the transactions they carried out



The launch of this system allowed:

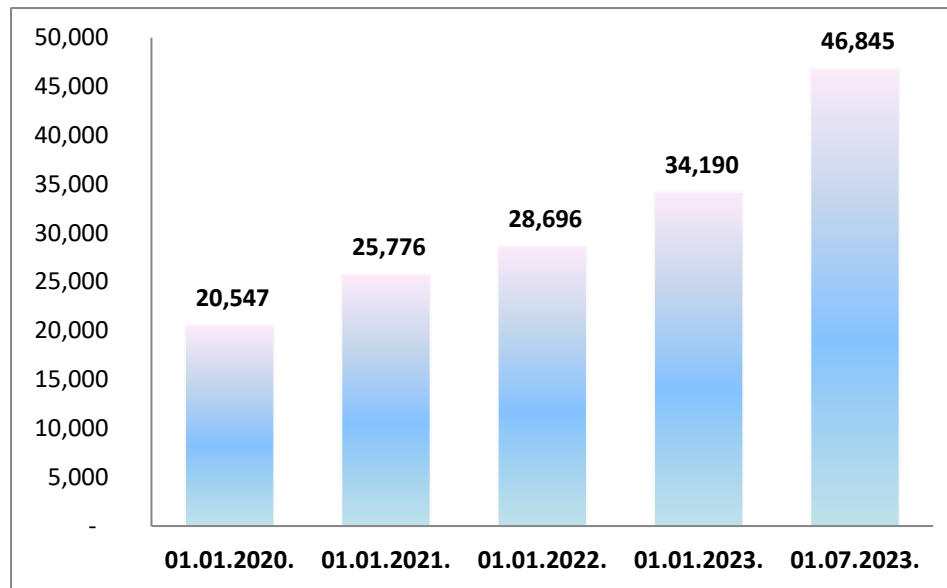
- in addition to the installed POS terminal (traditional trading terminal), business entities can make quick payments for purchases and provide quality services to customers;
- organizations operating in areas such as delivery, passenger transportation, as well as self-employed individuals (freelancers) to reduce operating costs by timely receiving payments

from clients via a QR code without using payment terminals.

In our country, the infrastructure of retail payment systems Uzcard and Humo, servicing bank cards, as well as payment services provided within the framework of payment systems, is developing. As a result of the work carried out to expand the bank card infrastructure, as of July 1 of this year, the number of bank cards issued amounted to 46.8 million units (Graph 4).

Graph 4

Number of bank cards issued by banks, thousand units



Thanks to the integration of national payment systems with the international payment systems Visa and Mastercard, clients began to make transactions with international bank cards at ATMs and terminals located throughout the republic.

In general, the state of the economy, in particular the level of customer satisfaction with financial and payment services, is inextricably linked with the quality of banking services, their attractiveness and diversity, as well as the financial capabilities and literacy of customers. With the increase in the level of digital financial services in our country, it is planned to develop and implement a system for remote identification

of clients, which will contribute to further development, the formation of qualified personnel in the field of information security, including cybersecurity in banks, as well as the formation of skills and abilities to use the payment infrastructure in remote places, especially in rural areas, development of remote banking and digital financial services.

Paragraph 2 of the Resolution of the President of the Republic of Uzbekistan dated February 17, 2021 No. PP-4996 “On measures to create conditions for the accelerated implementation of artificial intelligence technologies” defines the task of introducing a system for remote biometric identification of users of banking services (Face-

ID), allowing for remote opening accounts for clients. The consequence of this will be an expansion of coverage of the client audience, expansion to remote areas, and a reduction in costs for service processes, including by reducing the network of branches.

In order to ensure the implementation of these tasks, certain work is being carried out to develop an information system for remote identification of clients in collaboration with the Unified Integrator for the creation and support of state information systems UZINFOCOM, the State Personalization Center and the European Bank for Reconstruction and Development. At the same time, in order to create a competitive environment in this area, commercial banks are testing software solutions developed abroad. To date, cooperation has been established with the International Finance Corporation to implement remote biometric identification of clients, the developed regulatory documents are posted on the portal www.regulation.gov.uz.

In turn, commercial banks and payment organizations are allowed to use remote identification in test mode. In this case, assessing the risks in accordance with the internal control rules, you can register the client as a user of the

mobile application, attach a bank card to the mobile application and use it to detect suspicious transactions.

In addition, in order to develop an additional regulatory framework for the regulation of payment systems, the Central Bank, together with experts from the Financial Inclusion Alliance, has developed and is in the process of agreeing documents regarding the licensing of the activities of payment system operators and payment organizations, supervision of payment systems, protection of consumer rights during remote servicing and implementation of agency services, as well as ensuring the security of online payments and mobile payments.

It should be noted that the Decree of the President of the Republic of Uzbekistan dated October 5, 2020 No. PF 6079 “On approval of the Strategy “Digital Uzbekistan - 2030” and measures for its effective implementation” provides for the development of digital financial services in the next two years.

Conclusions and offers. In our previous research, we have analyzed the issues of diversification of banking services in the context of digitization, and in this article, we present our scientific views on

the diversification of services in banks based on our scientific conclusions [12-14].

In my opinion, the widespread use of diversification of banking activities in the context of digitalization and integration in various areas will lead to increased productivity, expanded convenience and opportunities, improved quality of products and services, and economic growth.

Based on the analysis of the theoretical and methodological foundations of diversification of banking activities, the following proposals can increase efficiency in the banking sector:

- integration of retail payment systems Humo and Uzcard in order to rationally use the existing payment infrastructure and expand the network of payment terminals and ATMs throughout the country;
- widespread use of the latest financial technologies (fintech) in order to reduce the current costs of organizations providing financial services, increase the operational efficiency of financial services and ensure their quality;
- access to reliable data, reduction of the human factor in the process of data collection, introduction of a modern automated system

for collecting, processing and analyzing data in the banking system;

- effective organization of the Unified Data Warehouse of the Central Bank and implementation of an analytical system for banking business processes;
- creation of a modern FinCERT center at the Central Bank to protect information and prevent cybersecurity violations in the banking and financial sector, take countermeasures and respond to financial fraud, as well as introduce an effective information security and cybersecurity system in banks, payment systems and payment organizations;
- increasing the volume of non-cash payments by the population due to the offer of banking products provided by bank cards, improving the quality of banking services.

In a word, the need to overcome fierce competition in the field of payment and banking services places certain demands on banks in the context of the growing financial culture of the population. In this case, banks that provide high-quality digital banking services will definitely have an absolute advantage. In a competitive market, only those banks that have transformed

their activities in accordance with the new requirements of the banking business and modern information and communication technologies are stable. The measures taken and the tasks planned for implementation in the near future will also contribute to further development, establishment of systematic control and elimination of shortcomings in the banking system.

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