

DIGITAL FINANCIAL SERVICES IN THE BANKING SYSTEM: PROGRESS AND SOLUTION OF THE FUTURE CHALLENGES

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Today, we have the opportunity to do most of the work at home, having only a phone in hand. One 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 file a complaint. There are programs and devices that allow us to carry out operations in a matter of seconds, but before it took months, or waiting in line for the whole day.

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

The banking system is also experiencing the widespread introduction of information and communication technologies in line with modern requirements, and thus the automation of many banking services is carried out. Now one can get almost all banking services instantly using a mobile phone or special devices, unlike, say, what it was 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 wide introduction of modern information and communication technologies, automating business processes of commercial banks and expanding remote banking services.

In the course of corporate transformation of commercial banks for introduction of modern information and communication technologies, it is planned to implement the following measures:

- expanding the volume and coverage of the remote banking services, including contactless payments;
- widespread use of the scoring system, remote identification and 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 the 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 a relationship between a bank and a client based on digital information and communication technologies. As the bank clients use financial services, they begin to understand the importance of having convenience, quality and speed of service, time saving and reduced operating costs, and electronic document flow. Accounting and management systems are being integrated, a Customer Relationship Management system CRM is being created.

It used to be difficult to contact the bank and use the services, especially in remote areas. Digital financial

services enabled to effectively reach the population and business entities in remote and sparsely populated areas where opening bank branches is unprofitable.

The digital transformation is streamlining business models of banks, developing the banking and payments segment - from remote banking services to changes in financial transactions.

Increased competition between banks

The transition to electronic banking services and creation of convenience for the population undoubtedly influenced the intensification of competition. In turn, as competition grows, so does the need to take advantage of new opportunities in information and communication technologies.

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

The use of digital financial technologies optimizes the possibility of active cooperation between the government, payment service providers and customers. Constant analysis of the needs and requirements of customers leads to the introduction of new ways

Digital Transformation

of providing services by banks, 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 lock-down began, the population was less interested in remote banking, preferring to come to the bank and solve the problem "on the spot." A small number of bank customers used mobile applications and remote banking software. Residents who could not leave their homes due to the quarantine were in dire need of remote banking services. We began to search, study, and, if necessary, use the necessary service through electronic channels. This prompted 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, providing low-cost 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 massively introduce remote banking services. As a result, the use of modern technologies is expanding - technologies of remote banking services, such as Internet and mobile banking, which are convenient for bank customers.

Today, the development of digital financial services has become an important direction for 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 working in the country has increased dramatically. In addition, there are 28 registered payment organizations specializing in the provision of digital financial services. With the aim of developing contactless payments, the HUMO retail payment system was created, which fully complies with international standards, which in turn has formed a competitive environment in the field of bank cards.

Currently, all basic banking services for individuals have been introduced in mobile applications of banks, including making payments, blocking (unblocking) a bank card, obtaining a micro-loan (credit), online deposit operations, and performing online conversion.

As of July 1, 2021, the number of users of remote service systems increased in comparison with the same period of 2020 by 5.5 million people (31%) and amounted to 17.4 million users (Fig. 1).

In addition, for the convenience of users during the lock-down, 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 a bank card is delivered to the client at his/her residence address.

For 6 months of 2021, through mobile banking applications bank customers - individuals carried out online deposits (6.7 trillion soums), online conversion (3.6 trillion soums), obtained online microloans (1, 5 trillion soums), repaid loans (0.4 trillion soums), made 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 of the Central Bank - the "Instant Payments System" - allowed legal entities and individual entrepreneurs who are clients of commercial banks to make payments 24/7 through remote service systems. In September last year, the "Instant Payments System" introduced the function of transferring budget and tax payments to the Treasury of the Ministry of Finance, as well as making payments from loan accounts in 24/7 mode.

As a result, in the first half of this year 5.4 million transactions totaling 127.0 trillion soums were carried out through the "Instant Payments System" of which more than 724 thousand payments were made to the budget amounting to 4.3 trillion soums. (Fig. 2).

To create innovative services, the Tap-to-phone system (the commercial name "Onetouch") has been introduced, as a result of which it has become possible for business entities (including self-employed persons and delivery service providers) to receive payments with a 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 was 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 the QR-online instant payment information system, which

Figure 1

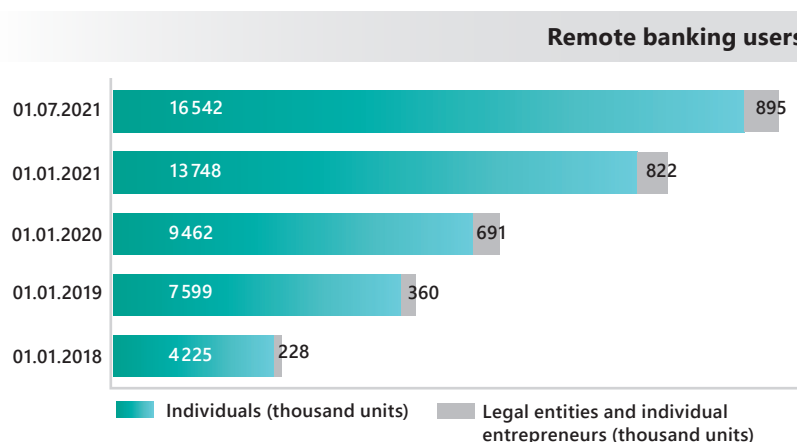
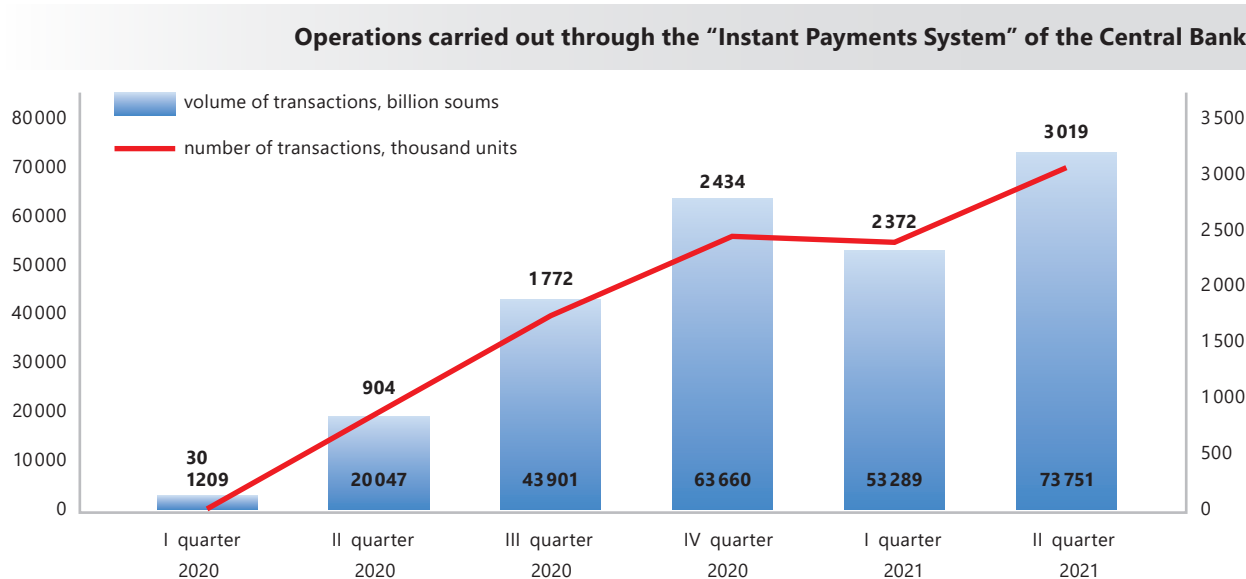


Figure 2



allowed 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, the retailers apply to 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 75 thousand business entities are provided with QR codes (stickers) of the QR-online information system (Fig. 3).

The launch of this system allowed:

- make quick payments for purchases and provide quality services to customers in addition to the installed POS terminal (traditional trading terminal) of business entities;
- organizations operating in such areas as delivery, passenger transportation, as well as self-employed persons (freelancers) to reduce operating costs due to the timely receipt of payments from customers via a QR code without using payment terminals.

Our country is developing the infrastructure of Uzcard and Humo retail payment systems serving bank cards, as well as payment services provided within payment systems. As a result of the work carried out to expand the infrastructure of bank cards as of July 1 of this year the number of issued bank cards amounted to 23.7 million units (Fig. 4).

The number of ATMs and information

kiosks installed in crowded places increased by 1194 units compared to the same period last year and reached the number of 12298; and the number of payment terminals used by business entities increased by 8375 units - up to 438.9 thousand units (Fig. 5). For 6 months of this year 95.5 trillion soums were transferred to bank cards, which is 20% more compared to the same period last year. The amount of transactions carried out through payment terminals increased by 15% and amounted to 49.8 trillion soums, and the amount of transactions through ATMs - 29.3 trillion soums.

Thanks to the integration of national payment systems with international payment systems Visa and Mastercard, customers began to make transactions with international bank cards at ATMs and terminals located in 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 remote customer identification system, 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 payment infrastructure in remote places, especially in rural areas, the development of remote banking and digital financial services.

Paragraph 2 of the Decree of the President of the Republic of Uzbekistan #PD-4996 “On Measures to Create Conditions for Accelerated Introduction of Artificial Intelligence Technologies” dated February 17, 2021 defines the task of introducing a remote biometric identification system for users of banking services (Face-ID), which allows opening of accounts for clients remotely. The result of this will be the expansion of clients’ coverage, reaching to remote areas, the cost reduction of service processes, including by reducing the network of branches.

To ensure the implementation of these tasks, certain work is being carried out to develop an information system for remote identification of customers in cooperation with the Single Integrator for Development and Support of Government 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 on the introduction of remote biometric

Figure 3

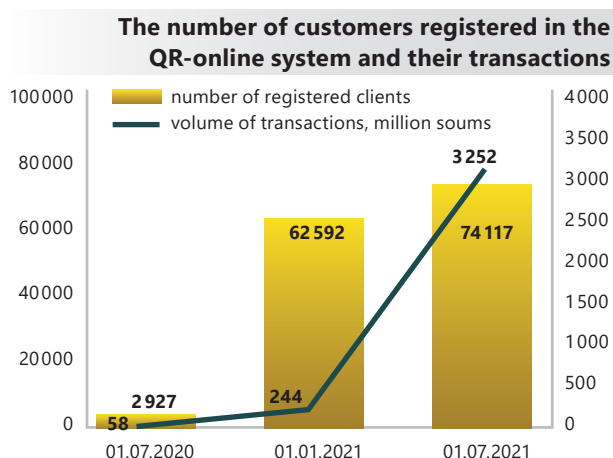
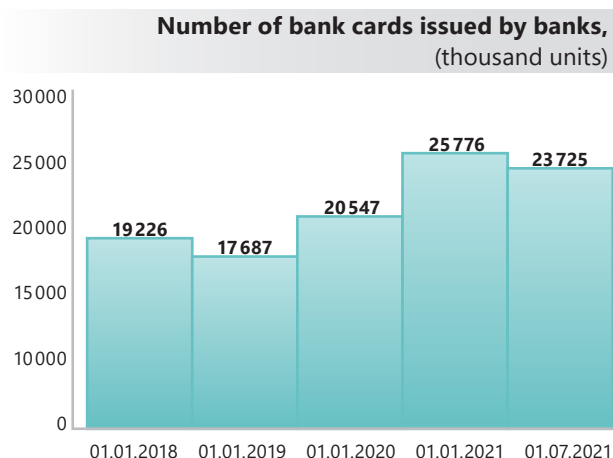


Figure 4



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 a test mode. In this case, assessing the risks in accordance with the rules of internal control, the client can be registered 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 regulating of payment systems, the Central Bank, together with experts from the Financial Inclusion Alliance, have developed and are in the process of endorsing the documents on licensing the activities of payment system operators and payment organizations, overseeing payment systems, protecting consumer rights in remote service and introduction of agency services, as well as ensuring the security of online settlements and mobile payments.

As a matter of fact the Decree of the President of the Republic of Uzbekistan "On Approval of the Strategy 'Digital Uzbekistan – 2030' and Measures for its Effective Implementation" #PD-6079 dated October 5, 2020 provides for development of digital financial services in the next two years. To accomplish the set tasks, the following work is planned:

- integration of retail payment systems Humo and Uzcard for the rational use of the existing payment infrastructure and expansion of the network of payment terminals and ATMs across the country;

- wide use of the latest financial technologies (FINTECH) in order to reduce the current costs of organizations providing financial services, improve the operational efficiency of financial services and ensure their quality;

- access to reliable data, reducing the human factor in the process of collecting data, introducing a modern automated system for collecting, processing and analyzing data in the banking system;

- effective organization of the Central Bank's Data Warehouse 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 breaches in the banking and financial sector, take measures to counter and respond to financial fraud, as well as implement an effective information security and cybersecurity system in banks, payment systems and payment organizations;

- an increase in the volume of non-cash payments of the population due to the offer of banking products provided by bank cards, an improvement in the quality of banking services.

In short, the need to overcome tough competition in the field of payment and banking services imposes certain requirements on banks in the context of the growing financial culture of the population. In this case, banks providing high-quality digital banking services will definitely have an unconditional advantage. In a competitive market, only those banks are stable that have transformed their activities in accordance with the new requirements of the banking business and modern information and communication technologies. The measures taken and the tasks planned for implementation in the near future will also contribute to further development, the establishment of systematic control and the elimination of shortcomings in the banking system.

Figure 5

