



THE ROLE OF DIGITAL TECHNOLOGIES IN THE DEVELOPMENT OF COMMERCIAL BANKS

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Abstract

This article describes in detail the improvement of the activities of business entities as modern banking services through the digital banking regulatory system "Digital Bank", its role and importance in the organization of banking services. It is revealed that the digital banking regulator system "Digital Bank" is one of the foundations of the new stage of service and its convenience. It also offers scientific and practical recommendations on further development and improvement of remote banking services provided by commercial banks through the digital banking regulatory system "Digital Bank" and areas for improvement.

Key words: commercial banking, banking services, banking products, digital banking, digital banking, online banking, digital regulator, banking services center, lending practices.

Introduction

The rapid development of digital technologies and their software has led to lower costs, improved quality and ease of use in the banking products and services market. Modern smartphones and tablets are now reaching the capacity to do things that can only be done on the basis of computer technology.



Such achievements in the development of information and communication technologies are widely used in the banking sector, as well as in other areas. In particular, the establishment of services such as "Mobile banking", "Online banking" by commercial banks in the country facilitates the use of banking services for individuals and corporate bank customers and the population.

The rapid growth of information flow in the XXI century, interpreted as the information age, the development of the Internet and information technology in a geometric progression - shows the objective necessity and inevitable process of digitization of various services and technologies and the organization of interactions online.

As the President of the Republic of Uzbekistan Shavkat Mirziyoyev noted, «without a digital economy, the country's economy has no future» [1]. The legislative framework for the gradual reform of the banking system in Uzbekistan, its further development and the creation of the necessary legal conditions for strengthening the competitive environment in this area is being improved. In particular, the Decree of the President of the Republic of Uzbekistan No. PF-5992 of May 12, 2020 "On the strategy of reforming the banking system of the Republic of Uzbekistan for 2020-2025" was adopted. Operational measures have been identified to ensure adequate security, as well as to reduce the impact of the human factor in the provision of financial services [2].

This decree approved the «Strategy for reforming the banking system of the Republic of Uzbekistan for 2020-2025». This strategy focuses on increasing the popularity of financial services and provides for the implementation of the following key measures:

- Ensuring a competitive environment in the banking sector by creating equal conditions for the activities of banks, regardless of the state share in the capital of individual banks;
- Introduction of new business models of banks, including those based on the principles of digital banking;
- Application of international quality standards of banking services;
- Optimization of operating and capital costs of banks;
- Further increase of deposits of legal entities and individuals in the national currency, as well as attraction of additional resources to the banking system due to the entry of banks into international capital markets, etc.

In addition, the participation of banks in the regions will be ensured by expanding the network of compact banking services offices in all regions, providing a basic package of banking services and not requiring a large number of management staff, as well as the widespread introduction of mobile banking services.

As a result, it is no exaggeration to say that a new stage in the evolution of banking products and services is taking place. In this regard, in order to develop the service sector for businesses, to ensure the continuity of their settlement operations, we will talk about the advantages of improving the digital banking regulatory system "Digital Bank" and its organizational and methodological aspects.



Literature Review

Digitization of economic processes is becoming a comprehensive trend that covers not only the direct information and communication network, but also all areas of economic activity in the country. The digital economy revolution is also having a strong impact on e-commerce, digital agriculture, "smart" grid systems, driverless transport, and personalized health care [3; p 11].

Indeed, the 21st century began with the information revolution based on the development of digital technologies and the process of globalization of the economy. Information in society and in the economic process has become a major resource. This information becomes knowledge in the hands of man, socio-economic relations move to global networks. The main factor of digital transformation in the activities of market participants is the development of digital culture [4; p 12].

That is why banks need to keep pace with the evolution of information technology.

In particular, the digitization of the banking system, one of the main links in the country's economy, was one of the first in the process of digitization of the economy, which led to the acceleration of the process of their transformation in line with modern requirements.

Transformation is an inevitable process of adapting business in the world to new conditions, to the preferences of society. The development of digital transformation in the banking sector should be achieved through a careful study of customer needs and analysis of existing opportunities, through the development of a new innovative strategy focused on the customer. The digital transformation of banks is primarily aimed at better understanding customer needs: customers and organizations want to communicate with banks quickly, easily and cheaply, so in the digital economy, the banking sector must be ready to offer the most modern services [5].

In the process of transformation of banks, the increase in customer demand is inevitable, and as a result of poor quality of advanced innovative banking services in this regard may lead to a decrease in bank customers' confidence in their bank. As a result, bank customers try to switch banks or use other banking services. Therefore, the transformation of banks' activities in accordance with the requirements of customers, creation of new banking services using modern information and communication technologies of banking products and services [6].

Of course, this process requires a lot of money from banks and qualified personnel. This is due to the innovative processes taking place in almost all sectors of the economy, organization of remote activities, which is to carry out the activities of traditional banks online with the help of modern digital technologies and a small number of qualified specialists.

The development of remote banking services in the banking system is primarily associated with changes in people's lives, the introduction of new information technologies, automation of banking operations. In his opinion, in essence, there is no sharp difference between the traditional and remote organization of communication between the bank and the customer. The need to serve the bank's customers has been maintained, only the communication channel connecting the bank and its customers has changed. That is, only bank customers can now perform transactions remotely [7; p 13].

From the above, it is clear that the role of digital technologies in the provision of banking services is important. Although many aspects of this process have been revealed by scientists, the limited time of



banking operations and the inability of businesses to increase their settlement operations in a limited period of time is a challenge today and the solutions to these problems are insufficiently disclosed.

Methodology

In this study, statistical tables and graphs, analytical comparisons, logical and comparative analysis, grouping methods, as well as research work of foreign and domestic scientists on the subject were widely used.

Analysis and Results

It is known from world practice that the cheapness of banking products and services does not ensure the expansion of its users. In recent years, new forms of financing and growing demand for technological services have led to a sharp increase in telecommunications in the banking sector. With the global expansion of the Internet, it is increasingly recognized as an important tool for the development of information and communication technologies, contributes to global integration and, like many industries, serves to increase the efficiency of the banking system.

Internet technology has revolutionized the global banking and payment system. This provides banks with additional facilities for customers in developed countries and new opportunities for a large population in emerging markets [17]. Today, 32 commercial banks operate in the country. Each bank has developed its own mobile applications, which provide banking services remotely 24/7. Developed with the help of modern information technology programs, the bank can be called "Virtual Banking" for users of mobile applications.

The use of banking services through commercial banks, their branches, banking service centers (service offices and mini-banks) and 24/7 outlets to some extent duplicates traditional banking activities. That is, the client will have to visit the bank (other forms). Of course, it also depends on the type of service used. For example, in case of withdrawing funds from a plastic card in cash, obtaining loans, it is necessary to visit banking institutions (or branches).

However, an easy and convenient solution for remote access to popular banking services, which are in increasing demand today, is the services of the digital banking regulator system «Digital banking». Of these services, not only for individuals, but also for businesses, they have the opportunity to make their payments around the clock, as well as save extra time and costs of travel to the bank.

Currently, the remote service system can be divided into two types of services provided to customers:

- Plastic card;
- Through commercial banks.

We offer a third type of service, this type of service:

- Ecosystem with all payments and services for individuals and businesses, with 24/7 online service.

Advantages of the ecosystem:

- Business entities can use their accounts via ETsR (electronic key issued by the tax authorities), anywhere and at any time in the world where the Internet is available;



-The system is developed using a special cross-platform program «Javascript», which can be used in all browsers, including: Internet Explorer, Edge, Chrome, Mozilla, Opera, Safari;
You do not need to install additional software, especially e-signature, ActiveX and other software.

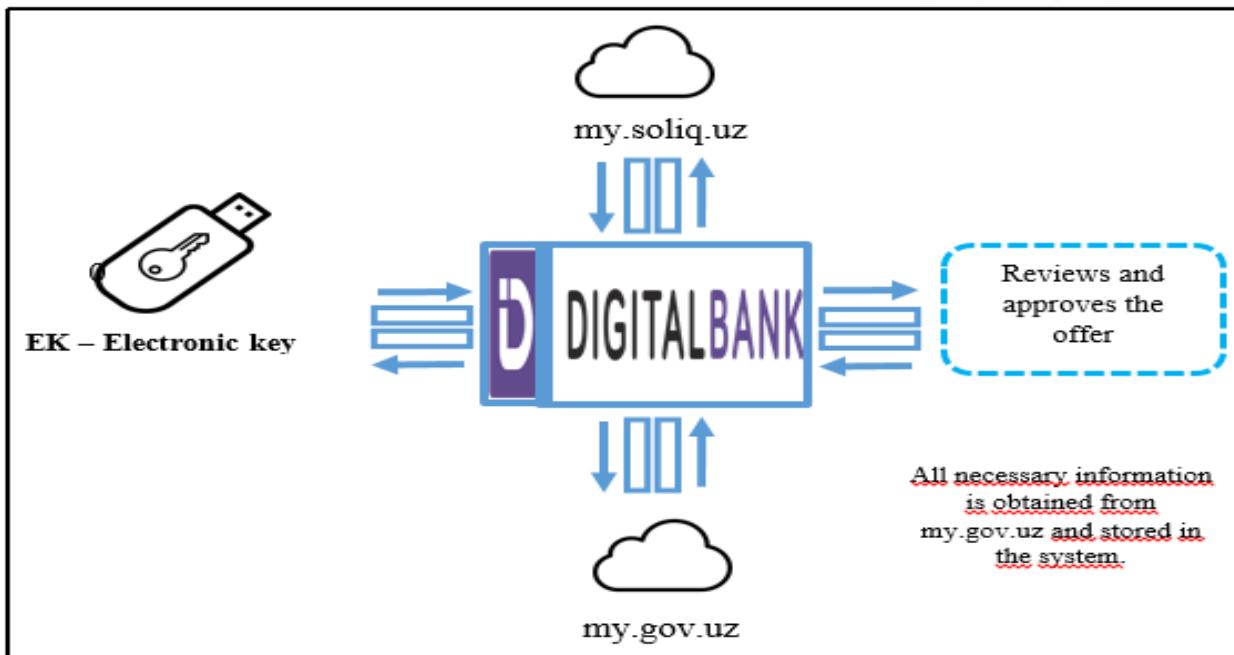


Figure 1. Procedure for operation of digital banking regulator system «Digital bank»

How to use the digital banking system «Digital Bank» As mentioned above, businesses can use their accounts EK keys, anywhere in the world and at any time with the Internet. In addition, the system receives all the necessary information from the tax authorities and «my.gov.uz» and stores it in the system. The system reviews and approves the Offer (Figure 1).

The existing remote banking services in our country today do not fully meet the requirements of modern banking services. Today's state policy is also wide-ranging reforms aimed at the introduction and development of digital banking.

The volume of transactions made through the interbank payment system of the Central Bank of the Republic of Uzbekistan amounted to 1,890,510 billion soums per year. sum. Assuming that the working day is 256 days a year, the average daily turnover of the Central Bank (from 9:00 to 16:00) is on average 7.4 trillion. soums (excluding intra-bank payments). If at least 5% of the daily remittances of commercial banks are made through the digital banking system "Digital Bank", we can achieve the following financial indicators. When we start attracting 0.2% of daily transactions through the digital banking system "Digital Bank" for at least 5% for 20 months and set the commission rate at 0.2%, we can earn about 30 million soums in the first, second and third months. When these figures are increased to 5% according to the above table, it will increase revenues to 740 million soums in 16-20 months (Table 1).



Table 1 SERVICES PROVIDED THROUGH DIGITAL BANK DIGITAL BANKING REGULATORY SYSTEM

No	Functions to be performed
1	Implementation of integration with bank (integration with NCI)
2	Receiving and sending bank transfers
3	Payment of state duties and other mandatory payments
4	Payment of budget payments
5	Opening primary and secondary accounts in commercial banks through the system
6	Online conversion
7	Online Deposit - Deposit funds on online deposits
8	Online real estate appraisal
9	Online credit - accepting applications and repaying loans online
10	Online - registration of insurance policies
11	Access to the personal accounts of the business entity anywhere and anytime key issued by the tax authorities
12	Use of tax and customs services for business entities
13	Use of modern e-commerce platforms open for businesses and making payments
14	Working with SWIFT transactions
15	Participation in Market Place auctions
16	Issuance of orders for corporate bank plastic cards
17	Carrying out electronic invoicing operations
18	Submission of tax reports online
19	Online use of customs services and online payments
20	24/7 technical support and centralized call center
21	Online consulting service

According to the data of the Republic of Uzbekistan, as of February 1, 2020, the number of users of remote banking services is 15,088,354. Of these, 838,817 are businesses and 14,249,537 are individuals. From the data in this table we can see that the number of businesses using remote banking services is several times less than the number of individuals, and these types of services are not sufficiently developed in our country for businesses (Figure 2).

Table 2 EXPECTED INCOME IN DISCIPLINE BANKING DIGITAL BANK THROUGH REGULATORY SYSTEM

At the intersection of months	The amount of daily transactions (million soums)	Share in daily transactions (%)	Daily income (%)	Expected daily income (million soums)
1-3	7 400 000	0,2	0,2	29,6
4-8	7 400 000	0,5	0,2	74
9-15	7 400 000	1,5	0,2	222
16-20	7 400 000	5,0	0,2	740

According to the Central Bank of the Republic of Uzbekistan, the number of business entities using remote banking services is 838,817. Taking into account that the subscriber fee from each connected customer is 98,000 soums in the amount of 40% of the minimum base amount. When the number of



business entities involved in the digital banking system "Digital Bank" is 1%, the subscription fee is 98,000 soums, while the income for the first and third months is 822 million soums. When the attraction is increased to 20%, the income can reach 16,440 million soums.

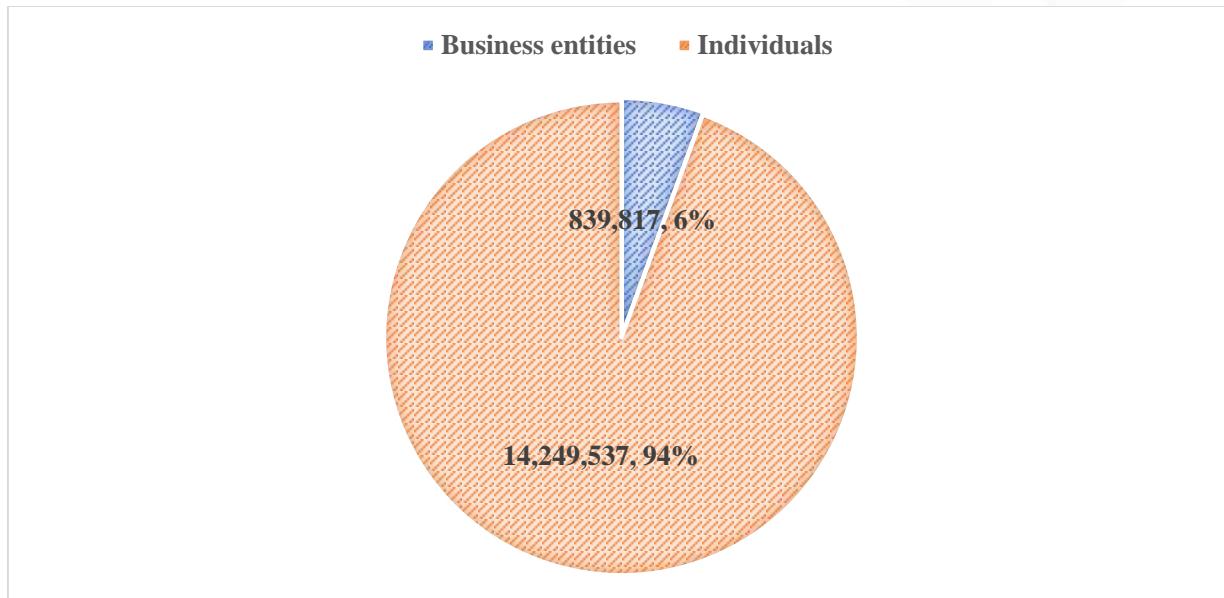


Figure 2. Number of users of remote banking services in the Republic of Uzbekistan.

Although it has achieved a number of successes with a number of remote banking services introduced by commercial banks, there are still a number of challenges in meeting the requirements set by banks. They can include:

- Insufficient skills of the population to use all remote services provided by Online Banking;
- Problems of identification in the provision of services for banking active operations (for example, notifications on registration at the bank branch through applications);
- The length of time it takes to process and respond to information received through certain remote services;
- Incomplete development of clear guidelines and instructions for remote service.

Conclusions and Suggestions

In further improving the quality of banking services provided through the digital banking regulator system "Digital Bank" it is advisable to take into account the following::

- Preparation of clear videos on the use of digital banking regulator "Digital Bank" and its dissemination to the public through the official website of the bank and social networks;
- Further improvement of the system of reliable identification of users of the services of the digital banking regulator "Digital bank" and its remote implementation;



- Extensive use of artificial intelligence and digital technologies in the analysis of information received through applications in order to provide fast and quality service through the digital banking regulator system "Digital Bank";
- Development of guidelines defining the procedures for the implementation of remote microcredit, microcredit and overdraft through the digital banking regulatory system "Digital Bank";
- It is necessary to ensure new information security in the provision of remote banking services and apply new innovative forms of information security through the study of international experience in this area.

In short, the development of a digital banking regulatory system "Digital Bank" will lead to the elimination of excessive paperwork, queuing, excessive time in the activities of business entities, the elimination of corruption in banking services, and thus further improve their activities.

REFERENCES

1. Speech of the President of the Republic of Uzbekistan Shavkat Mirziyoyev on September 22, 2020 "Video conference on the introduction of digital economy and e-government in the industry and regions". www.president.uz/uz/lists/view/3848
2. Decree of the President of the Republic of Uzbekistan No. PF-5992 of May 12, 2020 "On the strategy of reforming the banking system of the Republic of Uzbekistan for 2020-2025". www.lex.uz
3. Ayupov R.H., Boltaboeva G.R. Fundamentals of the digital economy. Textbook. T.: TMI, 2020. -11 p.
4. A.V. Babkina Trends in the development of the economy and industry in the context of digitalization. Monograph. SPb: Publishing house of Polytechnic. University, 2017 . - 12 p.
5. Azlarova A.A. Acceleration of the process of transformation of the banking sector in Uzbekistan in the context of the Sovid-19 coronavirus pandemic // Scientific-electronic journal "Economy and Innovative Technologies". №5, September-October, 2020.
6. Tojiev R.R., Rahmatov T.S. Theoretical aspects of the banking services market in modern conditions // Scientific electronic journal "Economy and Innovative Technologies". № 6, November-December, 2020.
7. Mamadiyarov Z.T. Development of remote banking services in commercial banks. I.f.f.d. (PhD) diss. avtoref. T.: TMI, 2019. - 13 p.
8. Qingji Zhou and others. A study on factors affecting service quality and loyalty intention in mobile banking // Journal of Retailing and Consumer Services, Volume 60, May 2021. – 12 p.
9. Rahmani Z., Tahvildari A., Honarmand H., Yousefi H., Sadegh M. Mobile banking and its benefits // Arabian Journal of Business and Management Review (OMAN Chapter), Vol. 2, No.5, Dec. 2012. – 38 p.
10. Niina M., Matti R., Virpi K. Mobile banking services // Communications of the ACM, Vol. 47, No.5, May 2004. – 44-45 p.
11. Gomachab R. The impact of mobile banking on customer satisfaction: commercial banks of Namibia (Keetmanshoop) // Journal of Internet Banking and Commerce, vol. 23, No. 2, June 2018. – 3 p.



12. Matthew N.O., Mahamadou T., Sarhan M.M., Omonowo D.M. Mobile Banking // International Journals of Advanced Research in computer Science and Software Engineering. Volume-7, Issue-6, 2017. – 75 p.
13. Chat Chuchuen. The perception of mobile banking adoption: the study of behavioral, security, and trust in Thailand // International Journal of Social Science and Humanity, Vol. 6, No. 7, July 2016. – 549 p.
14. Lacmanovic D., Lacmanovic I., Markoski B. Mobile Banking - Financial Services Technology / Conference: MIPRO, proceedings of the 35th international convention, -NBG Group, Zrenjanin, Serbia, 2012. – 3 p.
15. Okan Engin Basar et al. Resource usage analysis of a mobile banking application using sensor and touchscreen-based continuous Authentication // Procedia computer science, No 155, 2019. – 185-192 p.
16. www.cbu.uz – Official site of the Central Bank of the Republic of Uzbekistan.
17. Mamadiyarov Z., Azlarova A., Norov A., Mahmudova M., Bazarova N (2020) Covid 19 "Visits" to Banking Institutions - Yesterday, today and tomorrow -. European Journal of Molecular & Clinical Medicine. ISSN 2515-8260. EJMCM Volume 7, Issue 02,2020. Pages 6179-6188 - Scopus.
18. Toymukhamedov I, Azlarova A, Norov A, Abdurakhmanova M, Yudasheva S. (2021) Psychology and Education. Country: United States. ISSN:0033-3077 CiteScore - 0.2, QUARTILE - Q4, Issue (2021) 58(2): Pages 7114-7119. – Scopus coverage years: from 1973 to 1975, 1979,1994, from 1996 to 2021.