DIGITAL TRANSFORMATION AS AN INDISPENSABLE ELEMENT IN MAINTAINING THE COMPETITIVENESS OF BANKS

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Abstract. Increasing the share of digital business is the key to survival for banks Digital technologies have radically transformed the banking business over the last 10 years. The paradigm of customer-bank interaction has changed, and digital channels (mobile banking, internet banking, etc.) have not only become the main means of customer-bank interaction for daily tasks, but also for processing complex products such as loans and mortgages. At the same time, the high cost of new technologies, as well as the risks associated with the lack of readiness of many economic entities for full-scale digital transformation, require a comprehensive vision and deep understanding of the digitalisation process when making managerial decisions, including in the financial sector.

Keywords. Digital innovation, digital transformation, technology, regulation, payment services, financial intermediation, E-commerce, digital platforms, FinTech, blockchain, government regulation.

INTRODUCTION

The digital revolution sweeping the global economy is impressive in scale, pace and geography. Since the 1960s, digital innovation has spread around the world in successive waves, emanating from the scientific epicentres of the US, Europe.

Each of these waves was more intense than the previous one, covering new regions and having an increasingly tangible effect on the economy.

The first wave of digital innovations was limited to the automation of existing technologies and business processes.

The second wave occurred in the mid-1990s, when the spread of the Internet, mobile communications, social networks, and the emergence of smartphones led to a rapid increase in the use of technology by end consumers.

The third wave of digital technologies is changing the very business model of companies, increasing its cost-effectiveness. High-speed mobile communication systems are being actively commercialised, international information and communication infrastructure is being formed, electronic payment systems and Internet services are spreading, the market for mobile and cloud applications is expanding, and cryptocurrencies are spreading.

Digital technologies are radically transforming the banking business. The paradigm of customer interaction with the bank is changing, and digital channels are becoming not only the main means of customer interaction with the bank for daily tasks, but also for the execution of various products such as QR code payments, BNPL services (Buy now, pay later), currency exchange and expense sharing solutions, loans and mortgages.

The application of digital technologies in the work of banks is a key link in the development of the country's digital economy, as well as increasing competitiveness in the banking sector.

Methods. The article presents models of progress in various aspects with the help of general methods of scientific cognition, reveals its trends, characteristic features and new promising directions of banking development.

Results. The article presents models of progress in various aspects with the help of general methods of scientific cognition, reveals its trends, characteristic features and new promising directions of banking development.

Uzbekistan is pursuing a targeted policy to create the conditions for increasing the country's innovative potential and its transition to a digital economy. In particular, in accordance with the Presidential Decree of 5 October 2020, the Digital Uzbekistan 2030 Strategy and measures for its effective implementation have been adopted. The large-scale programme document includes road maps for the digital transformation of priority economic sectors and regions.

If growth rates remain stable by 2030, it is planned to achieve a GDP per capita of USD 4,000 and enter the group of countries with 'upper-middle income'. In this regard, the development of the digital economy with an increase in its share by at least 2.5 times by the end of 2026 has been identified as the main 'driver'. At the same time, it is planned to increase the production of software products 5 times and their export 10 times, up to 500 million US dollars, as well as to bring the level of digitalisation of production and operational processes in the real economy - in the financial and banking sectors - up to 70%. In addition, priority is given to the digitalisation of urban planning and construction, and their development within the framework of the Smart City concept[5].

The process of digitalisation of the economy should be launched first of all by banking institutions as the main financial institutions responsible for the circulation of huge financial assets.

Analyses. According to McKinsey's research, as the fintech sector continues to develop and digital technologies proliferate, traditional banks have several possible development paths.

The most universal option is to turn traditional banks into digital banks that offer a wide range of financial products and services. European banks more often leave the traditional business to the old bank, and create a 'subsidiary' - a digital bank - for retail. Another option is the transition from the classic bank format to a 'bank-partner' financial ecosystem, which implies building partnerships with other companies. The services provided by the partners should meet a wide range of

[5] Decree No. UP-60 of 28.01.2022 «On the Development Strategy of New Uzbekistan for 2022-2026».

customer needs, allowing the ecosystem owner to serve them on a one-stop-shop basis. The third option is for banks to focus on providing basic services such as management, balance sheet and transactions. This is not a high-margin area, but could be attractive due to lower risk and economies of scale.

According to the three levels of digital technology use, there are three main approaches to digital transformation of the banking sector: 1) an approach that implies gradual introduction of digital technologies on the basis of long-term planning and implementation of pilot projects; 2) an approach implemented through the creation of subsidiaries initially focused on the requirements of the digital economy; 3) an approach based on the recognition of digital technologies as the main value of the organisation, which implies a complete reorganisation of all internal and external prerequisites of the banking sector; and 3) an approach based on the recognition of digital technologies as the main value of the organisation, which implies a complete reorganisation of all internal and external prerequisites of the banking sector.

The demand for innovations is mainly dictated by consumers, their main requirements are reduction of time for banking operations, the possibility to perform them «in 24x7 mode», more convenient use of banking products and services, the ability to receive other services along with banking services through a single interface. These needs are the driver of innovation in the industry.

Central banks should facilitate this process by creating a favourable climate for banks to work with innovation and actively supporting financial infrastructure, including such non-traditional organisations for the banking industry as accelerators, business incubators and stand-alone fintech companies.

In Uzbekistan, favourable conditions are emerging for digital transformation of the banking industry. The share of customers who switch to remote service channels is increasing every year. Thus, in 2023, stable and uninterrupted functioning of the instant payment system, which allows legal entities and individual entrepreneurs to carry out online payment transactions 24/7, was ensured. The

number of transactions made through this system increased 1.8 times compared to 2022 and totalled 31.4 million, and the volume of payments increased almost 1.4 times and amounted to 603.8 trillion sums.

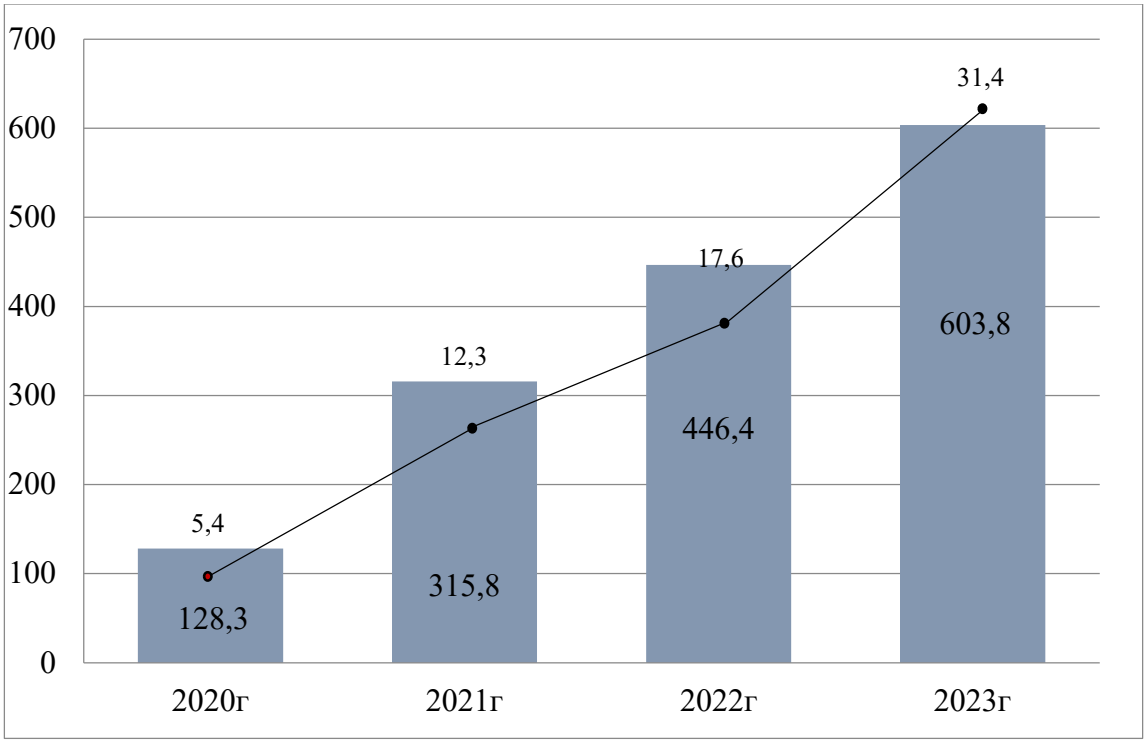

Figure 1. Transactions made through the instant payment system[6].

At the same time, 92% of the total volume of payment documents by economic entities was made remotely, without visiting a bank. It should be noted that 28% of the total number of transactions made through this system accounted for transactions made in the evening/night time, while in 2022 this indicator was only 17%.

The growing use of remote banking services, in turn, is fuelling demand for bank cards. In particular, in 2023, the number of bank cards put into circulation reached 46.2 million, increasing by 35 per cent compared to 2022. The number of co-branded bank cards allowing the population to make settlements with one card in the infrastructure of national and foreign payment systems increased 1.7 times compared to 2022 and reached 3.1 million units. In 2023, the volume of payments

[6] Annual Report of the Central Bank of the Republic of Uzbekistan 2023

received through 429 thousand payment terminals increased 1.4 times compared to 2022, reaching 254.7 trillion sums.

During the reporting year, the number of users of remote services increased almost 1.5 times, reaching 44.1 million as of 1 January 2024. 1.3 million of these users are business entities and 42.8 million are individuals.

The range of basic banking services for households (savings and conversion operations, micro-loans, ordering bank cards, identification) in the online mode was expanded, and for business entities - services for accepting payments using QR codes, NFC and other contactless payment technologies, in addition to payment terminals. In particular, in 2023, the number of QR codes provided to business entities by the information system 'QR-online' reached almost 101.0 thousand pieces, and the volume of transactions made in it increased almost 2.5 times and reached 337 billion sums.

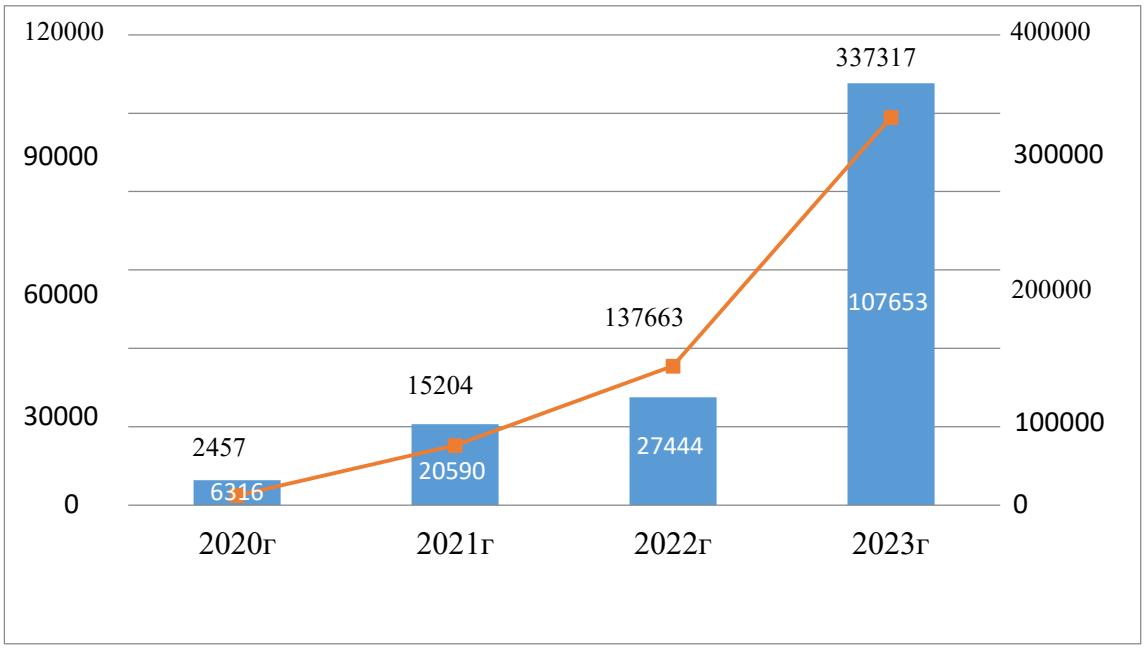

Figure 2. Number and volume of transactions made in the QR-Online system[7].

[7] Annual Report of the Central Bank of the Republic of Uzbekistan 2023

The application of financial technologies is modernising the banking system, and the segment of non-banks ('full-fledged' banks with a traditional set of services) is developing intensively - a new force in the fintech industry, which is expected to change the balance of power in the global financial sector in the future. The main difference between neobanks is that they have no branch network and operate entirely online. Typically, these banks offer higher interest rates on deposits, lower fees and a higher class of customer service and support. By doing away with outdated IT infrastructure, new players are better positioned to create modern banking products.

Non-banks either obtain a banking licence themselves or operate on the basis of an existing bank, effectively buying services wholesale from the licensing financial institution and retailing them to their customers. As an example of a bank, the leading digital banks by size of customer base are as follows[8].

Table 1.

Leading digital banks by size of customer base[9]

Bank	The parent company	Land	Number of customers, mln
ING Diba	**NG Group**	Germany	**8,5**
Capital One 360	**Capital One Financial**	U.S.A.	**7,8**
USAA Bank	**USAA**	U.S.A.	**7**
FNBO Direct	**First National of Nebraska**	U.S.A.	**6**

[8] Likuev A., Bermisheva P. Neobanki: Budushee ili tupikovaya vetv razvitiya bankovskoj sistemy // Forbes. – http://www.forbes.ru/tehnologii/344459-neobanki-budushchee-ili-tupikovaya-vetvrazvitiya-bankovskoy-sistemy

[9] Fadejkina N. V., Priputenko A. V. O sushnosti cifrovoj ekonomiki i cifrovoj transformacii bankovskogo biznesa / V sbornike: Problemy finansovo-kreditnogo obespecheniya novoj ekonomiki // Sbornik nauchnyh trudov po materialam nacionalnoj nauchno-prakticheskoj konferencii. – Novosibirsk: Novosibirskij gosudarstvennyj universitet ekonomiki i upravleniya «NINH», 2021. S. 49–57.

Rakuten Bank	**Rakuten**	Japan	**5**
Tinkoff Bank	**-**	Russia	**5**
TIAA Direct	**TIAA-CREF Trust Company**	U.S.A.	**3,9**
Discover Bank	**Discovery Financial Services**	U.S.A.	**3,5**
Alior Bank	**-**	Poland	**3**
DKB AG	**-**	Germany	**3**

Discussion. Therefore, expanding the range, quality and scope of digital payment services by strengthening the institutional and legal framework for these services, enhancing infrastructural capabilities, as well as ensuring their mass use, remain the most important strategic priorities in the country.

The consulting agency Price water house Coopers has identified eight key technologies of the digital economy: the Internet of Things and artificial intelligence - the foundation for a new generation of digital resources; robotics, drones and 3D printers - machines that facilitate the transfer of computer capabilities into the physical world; augmented and virtual reality - technologies that combine the physical and digital worlds; blockchain and cloud computing - a new approach to the basic operations of keeping records of commercial transactions.

Digital banks provide a wide range of financial products and services, do not have front offices, and use mobile applications and websites to provide services, often referred to as online banks or direct banks to meet customer needs around the clock:

- electronic payment systems that charge a percentage or commission to the seller of goods (borrower) who used the platform of a given payment system. Among the most well-known fintech companies in the payments sector are PayPal, AliPay, Klarna, Yandex.Money, Qiwi, and Google;

- instant online lending, providing customers with payday loans, which are not practised by traditional banks because of the high risk involved. One of the first firms in this market is the UK-based Wonga, which provides loans of up to £400 for terms of 1 to 35 days;

- P2P lending, is an alternative to bank retail lending that provides an opportunity for people to borrow from other individuals. In the US, the Lending Club platform is popular, which provides loans from $1,000 to $35,000 (up to $300,000 for legal entities) at rates from 6.8 per cent to 28.0 per cent according to credit history and loan purpose. Former IMF head K. Lagarde believes that peer-to-peer platforms with advanced big data and AI technologies for automatic credit scoring have a great future;

- crowdsourcing - mobilisation of people's resources through information technologies in order to solve problems faced by business, the state and society as a whole. Crowdsourcing includes: crowdfunding - fundraising for the implementation of projects without subsequent participation in equity capital, crowdfunding - lending by individuals to other individuals or legal entities through special Internet platforms, crowdinvesting - fundraising for the implementation of projects with subsequent participation in equity capital;

- remote identification is already an everyday occurrence, with Bank of America, Merrill Lynch and Royal Bank of Scotland identifying customers by fingerprint. Other biometric data are also used: voice sample, vascular pattern of a finger. The introduction of remote identification and mechanisms that recognise biometric features make it possible to launch a full-fledged electronic document flow, which was impossible before;

- processing of natural human speech, which includes recognising, understanding and generating speech. It is estimated that in 3-4 years digital banking assistants will understand a client's question in natural language and respond in dialogue mode;

- use of the bank's artificial intelligence (AI). For legal entities wishing to open an account or obtain a loan, instead of using a variety of questionnaires, they only need to provide the bank with the company's registration number. The bank's AI system uses its own data and information from external sources to create a detailed portrait of the company, its subsidiaries, owners, customers, and jurisdictions. Instead of a security department, the AI conducts due diligence on clients;

- robo-advising - an automated service using robo-advisors that select investment assets and manage the portfolio. Expert opinion on the assets to be purchased is offered by an application on a smartphone, which aggregates information from open sources, analytical reports and other necessary information, processes data arrays with the help of AI and offers the user the most probable scenario.

The digital transformation of the banking sector is generating effects such as increased automation, increased productivity due to reduced transaction times, improved interaction with customers and employees due to increased accessibility of information, as well as improved quality of goods and services, and increased customer service. The clear advantage of digital banks is also the increase in the speed of transactions and security of operations, integration into social networks and messengers, which enhances usability.

The strategic focus on innovation not only enables automated communication with customers, but also significantly improves the economic efficiency of operations and contributes to the development of the entire banking industry, making it more sustainable and competitive in the digital economy.

To successfully synergise digital channels, financial institutions need to:

Invest in modern technology

Utilise advanced technologies such as AI, blockchain to improve service quality.

Ensure data security

Continually update security systems, enforce data protection standards.

Train employees

Regular training and development of staff to improve their skills, understanding of new technologies.

Collect and analyse data

Use analytical tools to understand needs, improve services.

Today, the reforms initiated are becoming irreversible, modern society is being radically transformed, and the reflection of positive results suggests that the country and banks have embarked on the path of development of a digital society. The success of the innovative transformation of the banking sector will depend on a number of factors. Banks must rethink their strategy and decide on the direction of their long-term development. For large banks, it may be a full-scale digital transformation with the creation of an ecosystem around their core business. Smaller players can find attractive niches or conduct point digitalisation together with partners. And for banks lacking certain competences, the target solution may be to provide basic services under someone else's brand name.

REFERENCES

1. Decree No. UP-60 of 28.01.2022 «On the Development Strategy of New Uzbekistan for 2022-2026».

2. Annual Report of the Central Bank of the Republic of Uzbekistan 2023

3. Fadejkina N. V., Priputenko A. V. O sushnosti cifrovoj ekonomiki i cifrovoj transformacii bankovskogo biznesa / V sbornike: Problemy finansovo-kreditnogo obespecheniya novoj ekonomiki // Sbornik nauchnyh trudov po materialam nacionalnoj nauchno-prakticheskoj konferencii. – Novosibirsk: Novosibirskij gosudarstvennyj universitet ekonomiki i upravleniya «NINH», 2021. S. 49–57.

4. Likuev A., Bermisheva P. Neobanki: Budushee ili tupikovaya vetv razvitiya bankovskoj sistemy // Forbes. – http://www.forbes.ru/tehnologii/344459-neobanki-budushchee-ili-tupikovaya-vetvrazvitiya-bankovskoy-sistemy

5. Issledovanie cifrovoj ekonomiki Uzbekistana: investicii v IT-sektor za 4 goda vyrosli v 4 raza «Gazeta.uz» 2021g.

6. Internet Banking Rank 2020 // Markswebb – Konsalting dlya sozdaniya i razvitiya sovremenny`x cifrovy`x servisov. URL: https://markswebb.ru/report/internetbankingrank2020/download/?product_id=14845/ / (data obrashheniya: 27.11.2021).

7. Novyj cifrovoj Uzbekistan: celi, zadachi, perspektivy «Ekonomicheskij vestnik Uzbekistana» 2021

8. Report on the UN DIGITAL ECONOMY 2023