



SCIENTIFIC-THEORETICAL APPROACHES TO CLARIFYING INTERNATIONAL TRANSFORMATION PROCESSES IN THE ACTIVITIES OF COMMERCIAL BANKS

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A B S T R A C T	KEY WORDS
<p>The article scientifically analyzes the process of revolutionary transformation of the organization and expansion of retail and corporate banking services by commercial banks to a digital business model. The study examines the initiative of the state regulator of the British banking system in 2015 to use open API standards, technological innovations in the activities of commercial banks, mobile banking, “super-app” solutions, P2P payments, and the use of big data technologies. It also deeply studies the historical stages of the activities of commercial banks, the three successive stages of digitalization - the development of customer relationships through digital channels, the adaptation of technological infrastructure, and the implementation of strategic changes. Recommendations were developed for the modernization of the banking system in Uzbekistan, the implementation of international transformation processes, the widespread use of modern mobile and digital technologies, the diversification of banking services, and increasing security. This research creates a theoretical and practical basis for adapting banking activities to the digital ecosystem, developing services focused on customer needs, and ensuring sustainable financial growth.</p>	<p>Commercial banks, digital transformation, digital business model, open API, mobile banking, super-app, P2P payments, Big Data, banking ecosystems, innovative financial technologies, evolution of banking services.</p>

Introduction

The revolutionary transformation of commercial banks to a digital business model for organizing and expanding retail and corporate banking services to customers took place in 2015 with the initiative of the state regulator of the British banking system (Open Banking Working Group 8) to switch to open API standards. This practice allowed commercial banks to use databases of other organizations, taking into account the confidentiality requirements of customer information, improve banking services and

organize services in line with the changing needs and requirements of customers ¹. It should be noted that, along with the mandatory requirement for the use of API standards, 64 percent of banks from 85 countries are confident that new technologies will fundamentally change the banking business in the next 5 years. According to the opinion of banking experts in our country (81 percent), the use of these technologies is of great importance for banking activities.

Fundamental changes in the economic activities of the bank, the use of new technologies, new services and digital transformation processes are significantly affecting the banking services sector.

Digitalization is further increasing the importance of applying new priority formats for the development of banking, credit and financial business. Using the latest technologies, it will be possible to optimize repetitive and cross-cutting functions in the activities of commercial banks, reduce unnecessary costs and maximize profits, and in turn create conditions for customers with better and more advantageous access options than before.

REVIEW OF USED LITERATURE

Banking services digital business to the model transfer, especially open API standards based on develop process last in years world finance in the market new step starting England in 2015 bank system state regulator by previously Open Banking initiative launched this in the direction important stage is commercial to banks customer information protection did without other organizations from the bases also use opportunity created [1]. This digital approach bank services improvement and customers variable requirements in adaptation noticeable results is giving.

Banks digital to ecosystems transition, especially “super-apps” and P2P payments new of services current to be market architecture and competition environment fundamentally is changing Russian scientists also separately emphasizing For example, EA Tarkhanova and partners bank ecosystems essence, types and In Russia them order of the place modern approaches in detail [2]. Also, VS Tereshenko and OD Shumakova in research of banks business models transformation to do directions and them state by of support relevance showing passed [3].

Banking services deep digitization in the process customer information security, credit risks management, in particular the loan refusal done applications analysis to do mechanisms improvement also important importance has. D.Dj. Hand own in the study credit in operations refusal done applications analysis to do theoretical basics and practical methods illuminates [4]. This approach commerce banks in the activity risks determination and evaluation further thorough on the road to put opportunity gives.

This with together, NV Shcherbakova Russia bank in the sector digital of technologies features and they with related risks surrounding analysis so, bank services diversification in doing technological solutions with one in line information safety also important factor that it is emphasizes [5].

In general when receiving, foreign literature of banks digital transformation following main in directions illuminating gives:

- Digital business model and open API: banking services to the customer direction and information exchange liberalization [1].
- Banking ecosystems and new business models: digital through partnerships, super-apps and P2P payments services expansion [2; 3].

¹Dmitrieva G. S. Digital technology v banking sector economy. Izvestia Sankt-Peterburgskogo gosudarstvennogo ekonomicheskogo universiteta. 2020;(1):49–53.

- Risks management and information security : credit risk analysis to do and cybersecurity measures strengthening [4; 5].

This sources commerce banks activity digital transformation in doing theoretical basis created in the banking system of Uzbekistan digital banking services development practical mechanisms working to go out service does .

RESEARCH METHODOLOGY

Research commerce banks activity digital business to the model of transfer theoretical and practical the basics to study focused on the goal achieve for following main approach and methods used :

- **Systematic and complex approach** – banking services historical development , digital transformation stages and modern technologies impact each other in connection analysis was done .
- **Comparative and dynamic analysis** – USA , Great Britain Britain , Russia and Banking systems of Uzbekistan according to statistic information based on banks number , branch networks , digital services and customer in needs changes compared .
- **Graphic and table methods** – banks profitability , liquidity , P2P payments , mobile banking , etc. main indicators graphic and table in appearance was evaluated .
- **Expert assessment** – in the banking sector local and foreign experts thoughts and progressive international experience analysis was done .

Information sources as national and international financial reports , Open Banking initiative according to open API standards about statistic data , as well as Sed y x IA, Tarkhanova EA, Tereshenko VS, Hand D.Dj ., Shcherbakova NV of scientists scientific works [1–5] extensive was used .

As a result of banks digital transformation effective management , risks reduce and to the customer directed services quality to increase aimed at scientific and practical conclusions working It was released .

ANALYSIS AND DISCUSSION OF RESULTS

Currently, the need for remote banking services is growing day by day. 45 percent of the population of our country uses mobile banking, choosing modern mobile devices as the most optimal solution for carrying out banking services and banking operations. In such conditions, the development of digital technologies will undoubtedly lead to significant changes in the nature and scope of risks faced by commercial banks. All this means that commercial banks that want to develop need to apply new business models, timely digitization, a thorough understanding of international transformation processes and monitoring their trends, and, if necessary, implement them.

Over the past historical period, we can witness that changes in the direction of banking management and monetary policy have occurred simultaneously with the development of banking activities (Table 1.1.1).

The first stage (until the end of the 14th century). It was characterized by the introduction of state measures to account for money accepted for storage, as well as to limit interest rates on loans.

The second stage (from the 15th century to the first half of the 17th century) is characterized by the deepening of the regulation of the activities of commercial banks, the development of measures to maintain records of money received for safekeeping, limit interest rates on loans, and restrict the circulation of bills of exchange.

In the third stage (from the end of the 18th century to the 1930s), the activities of commercial banks were fully regulated.

In the fourth stage (from the 1930s to the 1980s), the activities of commercial banks This is explained by the increase in effective regulatory measures and strengthening of sanctions, as well as the development of requirements for independent bank audits. Today's international rating agencies act as global banking regulators.

In the fifth stage (from the 1980s to the present day), the active introduction of modern technologies, telecommunications, and later digital technologies into the activities of commercial banks led to significant changes in the quality and price of banking operations and banking services, which had a significant impact on the liberalization of the activities of commercial banks and their adaptation to customer demand (Table 1).

Table 1 Periodic stages of transformation of commercial banking activities²

Stages of transformation of commercial banks	Characteristics of periodic stages
1950s - 1970s Traditional banking model	The efficiency of banking activities is focused on the organization and presence of networks in a convenient and wide geographical area. There has been a rapid growth of foreign branches and representative offices of commercial banks. In this regard, remote banking services (from the perspective of effective use of radio, telephone, television) are considered important, which, as a rule, is interpreted as the popularization of banking services
1980s — 1990s The transition of banks to a business model based on technical and technological progress	Commercial banks have prioritized the further expansion of the technical aspects of their activities through the widespread use of communication tools and the formation of the initial elements of remote banking services via the Internet in remote branch management.
1990s — 2000s Cross-border interbank communications	As commercial banks expand their activities and reach beyond national financial markets, there is a need to effectively coordinate the economic interests of various stakeholders. In particular, the idea of collecting personal data about customers and competitors has led to the initial steps towards creating a digital customer profile.
2000 - 2010 Harmonization and cooperation between banking and non-banking organizations	The emphasis is on increasing healthy competitiveness in the activities of commercial banks, as well as developing a portfolio of mutually functional and diverse banking products and services, and increasingly attracting non-financial enterprises based on the principles of partnership and technical and technological cooperation. In particular, emphasis is placed on the creation of venture funds to support financial programs, financial technologies, and banking innovations.
Digital banking businesses and ecosystems 2011- y.v	The rapid growth and widespread adoption of digital technologies has been reflected in the partnership relations of bank management and the growth of many independent banking and non-banking institutions that are not in competition with each other. By moving to business models in the form of market ecosystems, organizations and digital business entities are forming in various regions, focused on producing a package of banking products and services through Internet networks.

The proposed classification made it possible to justify the need for effective management and regulation of transformation processes in commercial banks at the current stage in an institutional direction.

The process of digitizing the activities of commercial banks includes three consecutive stages:

- the first stage , new ways of building relationships with customers, creating modern banking products and services that allow for their broad involvement;

² Systematized by the author

- second stage, adaptation of technological infrastructure;
- third stage, commercial It involves strategic changes that will allow banks to strategically position themselves in the digital environment (Figure 1.1.1).

The first stage involved the development of new digital channels for interaction with customers in response to changing demands and preferences for financial services, as well as the creation of modern financial products that would allow banks to reposition themselves in a competitive environment. In recent years, along with the modernization of online banking platforms, the main efforts of banks have been focused on developing customer relationships through mobile devices. This stage involved the creation of new banking products and services, digital channels for their sale and promotion, and significant changes to the technological infrastructure, requiring integration with existing systems.

The second stage of digital transformation of commercial banks involves changing the technological platform, that is, transforming it into a modular and flexible infrastructure that allows it to integrate modern new financial technologies, as well as revitalizing the creation of new banking services and products. It is important to note that technological solutions such as biometric identification of customers, electronic document circulation, increased transaction security, simplified user interface, remote banking services and expanding their use are being actively used. Another distinctive feature of digitalization at this stage is that commercial banks are focused on digitalizing business processes not only in the back office, but also in the front office. For example, banks are using complex analytical algorithms based on artificial intelligence to improve the assessment of a client's creditworthiness, form customized orders for banking products for clients, or provide personalized services.

The third stage of digital transformation has led to extensive organizational changes aimed at reducing the decision-making process by commercial banks and simplifying the structural and operational models in accordance with the principle of customer-oriented banking strategy. These changes have led to some resistance not only to the banking organization, but also, in most cases, to the reluctance of employees to accept innovations, since the introduction of such innovations implies fundamental changes in the organizational structure of commercial banks.

One of the main results expected from the transformation of commercial banks with the help of international financial institutions is to reduce the state's share in a number of commercial banks, to introduce international experience into their activities, while attracting strategic investors with sufficient experience, knowledge and reputation in banking. In addition, it is planned to consistently eliminate the administrative burden by freeing credit institutions from performing functions that are not typical for them, as well as from excessive burdens, to widely introduce modern information and communication technologies, to create the necessary conditions for automating business processes of commercial banks and expanding the types of remote banking services.

Research aimed at the widespread application of international transformation processes to the activities of commercial banks is being studied by foreign and domestic scientists.

In particular, in the studies of foreign scientists G. Markowitz (Harry Max Markowitz), K. Cohen (KJ Cohen), F. Hammer (FS Hammer), and W. Sharp (William Forsyth Sharpe), the activities of banks were considered within the framework of portfolio theory, and "...a bank, taking into account the possible level of risk, should form such a ratio of assets that, while ensuring compliance with a certain liquidity coefficient, should receive maximum income³. "

³ Bankovskaya sfera: mechanism of information -financial intermediatsii : monograph / pod nauchnoy ed. prof. Yu.V. Rozhkova. — Khabarovsk: RITs XGAEP, 2013. — 320 p.

In our opinion, the institutional approach (theory of the firm) adopted by these scholars, which aims to equate a bank with an enterprise, necessitates a clear definition of the subject of banking activities, and a clear definition of the concepts of "banking operation", "banking service", and "banking product".

In our opinion, these are the main reasons why economists have not yet come to a unified approach and consensus on these concepts and the question of what ultimately satisfies customer needs: an operation, a service, or a product.

Among the significant studies, it is worth noting that international transformation processes by foreign scientists R. Amit and S. Zott (Amit R., Zott C) are aimed at " the use of digital technologies that allow for the full implementation of the possibility of remote access to ... products and services."⁴

In their research, J. Parker, Van Alstine, S. Chaudhari drew attention to the fact that "...a fundamental change in the architecture and infrastructure of banking business processes related to the provision of banking services to the client, motivating customers to work on the basis of creating a virtual banking environment, and creating a new banking organization that allows for a high level of customization of banking services based on the wishes of the client"⁵ is the main aspect of modern business models. Today, newly created enterprises, including e-business, have the opportunity to create a new format of business models faster and more efficiently, since they prefer not to master existing economic knowledge and skills, but to establish or move market relations from one technological stage to another along the value chain. The fact that the direction of business organization also creates dependence on certain economic resources is, in our opinion, no exaggeration to say that one of the main factors in the decline in the efficiency of traditional enterprises.

The most frequently used words by customers when searching for mobile applications that they need or satisfy them through search engines are bank, online, app, mobile, while the words account, card, business, credit are used when searching for types of services (Figure 1).

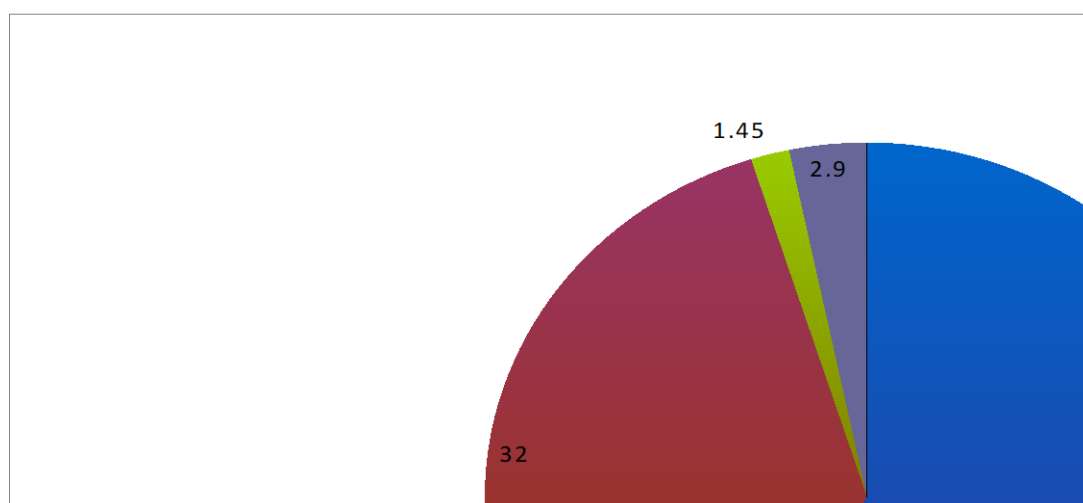


Figure 1. Traffic used in offering retail banking services ⁶(in percent)

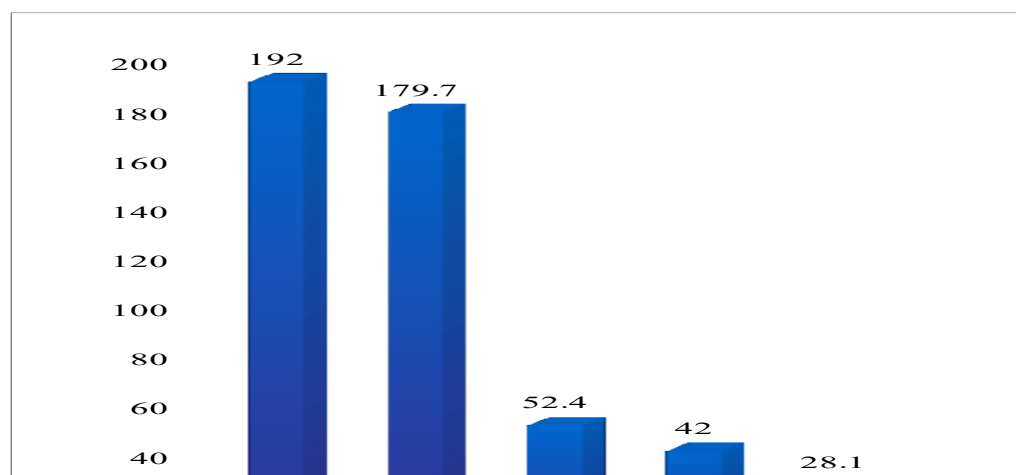
⁴ Zott, Christoph & Amit, Raphael . (2007). Business Model Design and the Performance of Entrepreneurial Firms. Organizational Science. 18. 10.1287/orsc.1060.0232.

⁵ Parker, J., Wang Alstin, M., Chaudari, S. (2017). Revolution platform. Kak setevye rynki menyayut ekonomu - i kak zastavit ix rabotat na vas. M.: Mann, Ivanov and Ferber .

⁶ Author's development.

The rapid development of the social payments sector. According to research conducted by Forrester ⁷, a number of changes are taking place in the social payments sector. Integrated payment packages offered through the mobile application PayPal, Venmo, Apple Cash, Square Cash App are ensuring that commercial banks become serious competitors in the payments market. However, despite this, operations carried out using bank cards and cash continue to gain priority (Figure 1.2.3).

by analytics firm PYMNTS ⁸, consumers are increasingly choosing contactless cards over mobile wallets. According to the data, one in four US shoppers have purchased primary products online.



2. Average monthly volume of consumer payments by payment method in the United States ⁹(in billions of US dollars)

Trend 3. Intensification of competition in the P2P transaction segment. In order to create a competitive advantage with fintech companies that develop technologies that facilitate P2P transactions, five major US banks have developed a money transfer platform service called Zelle, which has achieved some success in the P2P transaction sector. However, the introduction of additional functionalities (in particular, S2B payments) by PayPal, Venmo, and Cash App Block is creating additional problems for banks.

Introduction of super-app technologies. One of the issues that is being actively studied by the world's leading banks today is the formation of a super-app (collecting the functions necessary for the client in a single interface). The number of cases of this issue in annual reports and business plans increased by 640% in 2019-2021. The main problem in this area is related to customer demand. Banking applications have a complex structural structure, but in most cases, customers only use functions such as checking the balance, making payments, and viewing payment history. Therefore, 4-5 APIs are used to integrate mobile applications with other platforms.

Mobile technologies are based on the use of devices such as smartphones, tablets, mobile devices. As a result of the development of mobile technologies, a separate area of banking activity has emerged, namely mobile banking. It has become possible to carry out the main part of customer interactions with

⁷ Prepared based on data from <https://www.forrester.com/report/predictions-2022-payments/RES176306>.

⁸ Prepared based on information from <https://www.pymnts.com/>.

⁹ Prepared based on information from <https://www.pymnts.com/topic/retail/>.

the bank via mobile devices. As a rule, The use of mobile technologies in the banking and finance sector is based on special application packages, platforms, and mobile applications.

Big Data. Today, banking and non-bank financial institutions are able to integrate into large-scale databases, process and use existing data, study customer behavior, create new consumer habits and categories, and offer them the most suitable products and services.

CONCLUSION AND SUGGESTIONS

Transferred research results this shows that commerce banks activity digital business to the model transfer process global finance market downturn is making . In 2015, the Great Open Banking initiative in Britain within from open API standards use according to started experience world banking services on a large scale new quality to the stage take The result is banks customer information protection did without other organizations use of databases , services personalization , P2P payments , super- apps , big information technologies (Big Data) , such as mobile banking innovations wide current to grow to the possibility has it has been .

Digital transformation step by step done more than three main in the direction manifestation was : first in stages customers with digital channels through new relationship installation ; second in stages bank technological infrastructure modular and flexible to the system rotate ; third in stages and strategic management simplification and decision acceptance to do This process accelerates banking services . further flexible , fast and customer to the needs directed so that banking transactions quality increased . With this together , cybersecurity , data protection to do and risk management issues current importance profession is doing .

This from the results come out , following practical offers working output :

- **Banks for** – Open API, super-app and Big Data solutions current customer needs deep analysis to make , banking products personalization and service show speed increase ; front- office and back-office processes complete digitization through operational expenses reduce and cybersecurity strengthen .
- **State and regulators for** – Digital banking services supportive legal the base further improvements , P2P payments and remote operations safety guaranteeing standards current to be
- **Uzbekistan in conditions** – Local in banks hybrid (digital + traditional) branch model expansion , mobile banking develop and progressive foreign technologies fast current to , as well as international strategic investors with cooperation strengthen .

In general when you get it , commercial banks digital transformation financial services new to the stage take out , customer need more complete satisfy , risks reduce and far term stable development to provide service This will do . conclusion and proposals banking system modernization in doing , especially Uzbekistan in conditions , scientific-theoretical basis and practical guide as big importance has.

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