The Banking Services Market in the Innovative Economy Development



D. A. Yuryev, K. N. Ermolaev, and E. S. Nedorezova

Abstract At present, the Russian banking system is transforming and moving to the intensive development model, which is accompanied by active banking innovations, banking services based on modern information technologies, and the banking infrastructure that meets international standards. The study highlights various most significant changes in this area. At present, the development of digital banking services is becoming a promising direction. The development of digital products and technologies is an important competitive advantage of banks, a source of commission income and it allows attracting new highly profitable clients interested in these services. Along with this, digital services create and strengthen the image of a modern dynamic bank and have a positive effect on its reputation. It was found out that there is a significant increase in the provision of banking services through remote banking services. For example, management of bank accounts through the Internet bank, or the Mobile Bank system. In the future, an increasing number of banking services will be provided remotely, with maximum convenience for the client while maintaining his confidentiality. It was also revealed that, in connection with the large-scale increase in the Internet banking, the need to preserve personal data and protect depositors and the bank from cyber-attacks increases significantly, which in turn stimulates banks to develop and introduce innovative products and services, new digital technologies.

Keywords Banking innovations • Banking products and services • Credit and financial sector • Information technology

1 Introduction

Currently, the development of the banking services market largely determines the special role of the banking system, which acts as one of the main links of the country's economy. In this regard, the growing interest in various aspects of banking, banking products and services, methods of regulation and management of the banking

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services market is urgent. The modern banking services market can be characterized as a combination of classic credit and non-credit products with the latest innovative achievements of FinTech companies. The development of the range of financial products is due to the time, in which all market agents must resort to banks as intermediaries in monetary transactions between counterparties. This circumstance determines the development of mobile gadgets capable of providing access to the Internet and mobile banking to customers without visiting the bank's office. The development of new types of services and the line of banking products is caused by their competition with each other (we'll pay special attention to this issue in this study) and with microfinance organizations [1].

The purpose of this study is to analyze the transformation of providing banking services in the context of the innovative economy development. Identifying new needs of customers based on their use of digital financial assets, domestic and international financial organizations are using Big Data technologies to meet such needs in a timely manner and maintain competitive advantages in the banking services market. The significant relevance of the presented theoretical problems, a rather weak level of research on this issue, the importance of the formed theoretical questions for business have indicated the choice of the research topic.

2 Methodology

The main methodological approaches used in the study are historical, structuralist, rationalistic. The local methods of scientific analysis used are formal logic tools such as analysis, deduction, induction, synthesis of the logical and the historical. A special place was taken using methods of statistical and metamathematical analysis, which made it possible to identify the conditions to develop the banking services market in Russia. The study of the FinTech sector, including the determination of the optimal structure of financial products, involves the use of various methodological approaches and local methods. As the main methodological approaches that were used in the work, we can single out the reproductive, institutional-evolutionary and systemic ones. The use of the reproductive approach allows us to determine the essence of the FinTech sector. The institutional-evolutionary approach contributes to the study of the evolution of traditional ideas about the form and content of the category and indicates the role of regulatory and incentive institutions in providing digital goods and services. The systemic methodological approach is based on the study of the entire complex of economic problems as a system consisting of separate elements operating on dialectical principles. The application of this methodological approach allows us to classify practicing financial technologies, showing the distinctive features of each of their types. Methods of analysis of synthesis, deduction, induction, hypothesis, scientific abstraction were used as local research methods, which made it possible to reveal the essence and content of the scientific category under study.

3 Results

Some scholars represent the services provided by the bank in the form of specific transactions with counterparties with specific features inherent only to them, among which we can single out the following:

- hedging of operations carried out by law on bank secrecy;
- internal regulatory regulation of the transaction process;
- binding procedural rules [2].

In some cases, banking operations have a subjective composition, a limited range of objects, and special regulation. Banking services can be interpreted not only as specific procedures for the provision of credit and financial services to legal entities or individuals, but also as consulting services, for example, when opening an individual investment account or an impersonal metal account with a bank. In this case, the bank, through indirect control and carrying out transactions on behalf of the client in the financial markets (stock, commodity and raw materials, etc.), provides its client with the opportunity to passively earn and receive income in the form of interest [3].

The modern form of centralization and concentration of loan capital is moving to the global level, being realized in the form of internationalization of bank capital. There is an actively ongoing process of interconnection and integration of banking systems of countries with developed and developing economies, which means the penetration of banks of developed countries into the banking structure of countries with the emerging market, implementing the strategy of acquiring and absorbing national financial institutions. Such operations are carried out by credit institutions due to their exclusive legal capacity.

It is worth noting that banking operations can be carried out not only by a commercial credit organization, which has the right to do so and has the corresponding license. Such operations can be carried out by the Central Bank of Russia, the Deposit Insurance Agency, Vnesheconombank of the Russian Federation. In addition, recently, classic banking operations can be carried out by microfinance organizations, for example, when providing online loans. The latter, in terms of institutions providing them, can be subdivided into:

- Microcredit operations—borrowed funds of short-term repayment with high
 interest rates. In January 2020, the maximum rate on them was at 1.7% per day. In
 microfinance organizations, the maximum value of a microloan to an individual
 (Bystrodengi, MigCredit, Loan Center) is 1 million rubles, in microcredit organizations (Dobrye Dengi, Jet Money Microfinance, Express Credit Agency)—500
 thousand rubles;
- A quick loan can be issued for several days or several months. The interest rate ranges from 35 to 55%. The loan has its own characteristics and nuances. The maximum amount of such a loan cannot exceed 1 million rubles (for example, Tinkoff Bank, Bank HomeCredit, UralSib).

Lending for a long-term period is to withdraw a loan for a long time, the term of which can extend up to three years. The interest rate on such a loan varies from 7 to 14%. Such a loan can be obtained through electronic services or in person at a bank branch (Sberbank, Gazprombank, VTB, Alfa-Bank). The undoubted advantage of the loan system is the quick response to the borrower's need for funds. You can also get a credit card with the delivery of an employee of a credit institution to a specified place from the borrower, for example, an office or home. This helps to reduce the costs of missed opportunities, as it saves time, replaces a personal appeal to the bank with a courier delivery of the necessary financial instrument [4].

Currently, the segmentation of the banking market and financial services provided on it is deepening. For example, banks have a serious competitor in their traditional sphere of providing services - microfinance and microcredit institutions, which provide lending services according to a simplified procedure for considering a client application. The latter circumstance significantly saves clients' time, and they, despite the significantly inflated interest on forthcoming payments, choose the services of microfinance and microcredit institutions.

We point out that the active development of the banking services market is currently accompanied by the rapid development of information technologies. We will consider this aspect in the context of its impact on the development of the banking products market in more detail in the next study. At this stage of our research, we emphasize the fact that the digital development of the financial environment not only provokes competition between banks, but also objectively contributes to the creation of new financial products [5]. So, for example, the result of the innovative revolution over the past decade has been the spread of such products and services as: Internet banking, mobile banking, video banking, virtual bank cards.

Such a rapid development of banking technologies contributes, as already reflected above, to the development and implementation of information technologies in modern banking. About 95% of current non-cash transactions are carried out by clients of credit institutions using modern electronic technologies. So, in 2020, the volume of such transactions increased compared to 2019 by 30% (up to 18.8 billion order transactions) in a value volume of up to 537 billion rubles. Basically, the key factor of this growth was the growth in operations of servicing transactions of individuals. Individuals made every fourth payment using the Internet or mobile banking.

However, it is worth mentioning the downside of improving innovative banking technologies. And one of the negative results of this process is the growth of risk accepted by credit institutions, both of non-payment by the client and an increase in the range and number of fraudulent transactions. From the latter, the banking system of Russia lost about \$100 million in 2020. This circumstance forces banks to spend significant financial resources on improving cybersecurity, which is an inhibiting factor in the development of the banking services market [6].

Studying the technological aspect of financial transactions by banks, we cannot ignore the most important trend of recent times: the impact of the FinTech ecosystem on the transformation of services provided by the banking sector. Under the term "FinTech" we distinguish a set of financial and technological segments represented

by investors, business incubators, regulatory bodies, new technologies, as well as end consumers of financial services who use technical and innovative products in the financial field. Soon, there will be the key areas that will undergo a radical technological change in their classic functions over the next five years: banking and capital markets; the sphere of asset and private capital management; insurance market; electronic systems of money transfers and payments. After analyzing the forecast of such changes, we can state that the most significant volatility in their activities will take place in the banking sector of individuals, as well as small businesses; in addition, the technology of work in the segment of brokerage services will be significantly transformed [7].

An important factor contributing to services provided by banks is the growing demand for financial products from the population, which is currently not serviced by banks (to attract this segment), as well as the deterioration in the quality of traditional services provided by banks. In 2019, about 68% of the working-age population had a bank account. Therefore, this entire consumer segment is a target for proliferation in relation to their FinTech technologies, especially in the field of payment transactions. Considering the widespread use of smartphones, this trend is the most realizable. The same applies to the interaction of banks with small businesses. The latter, to save transaction costs, resort to online banking, implemented through the interaction of banking institutions with FinTech companies, which accelerates the process of obtaining banking services, such as issuing credit resources.

We consider that it is important to note the fact that the banks' activity in the market of services they provide has changed. So, among the main trends in the provision of financial services, we can highlight the following:

- 1. Development and implementation of personalized offers into the Internet banking system. When ordering certificates from the bank to the client at a convenient time for him, using the appropriate menu items, courier delivery of documentation is possible. When showing loyalty to the bank, the client can receive personalized offers of financial services.
- 2. Transfer of bank branches (self-service zones) and customer support systems to round-the-clock operation. Thus, the bank's clients get the opportunity to manage financial resources, including online, at any time of the day.
- 3. Use of robots, Big Date technology and the Internet of things. With the help of these technologies, there is a full-fledged analysis of each of the clients about his financial activity, the development of a financial product specifically for him and support at each stage of the life cycle of a financial service (issuance, service, changing conditions, closing).

Thus, the specified range of banking services has recently undergone significant changes, primarily due to the use of innovative technologies by credit institutions.

4 Discussion

Considering the rapid transition of the loan's share of banking operations to the digital environment, one of the main trends in the development of digital banking services has become the introduction of a biometric client recognition system and the creation of a digital client profile system when using banking services. Also, in Russia, work has been underway to create a Fast Payment System using the above technologies since 2018. Among the significant trends in the domestic banking system is the piloting of the Masterchain system, developed for the implementation of the following projects:

- implementation of the system to account for electronic mortgages (including accounting and storage of such securities in a decentralized depository system. The first such transaction was carried out in September 2018);
- execution of transactions with digital bank guarantees (the first transactions were carried out in December 2018);
- serving trade finance transactions using digital letters of credit technology.

It should be said that one of the most priority areas in the development of the banking services market for credit and financial institutions is to improve the system of remote banking payments. Considering the rapid development of the mobile Internet and banking, there is an increase in the number of potential users of such operations. In this case, we are talking about contactless payment technologies, the use of bank cards. Over the ten-year period, there has been a significant increase in the number of these digital bank payment instruments [8]. Technologies that are actively being introduced into providing banking products are fundamentally changing the entire financial market. The process of communication between the bank and its customers goes to mobile service channels [9].

For individuals, banks such as Sberbank are introducing intelligent mechanisms for studying consumer behavior in social networks and instant messengers. So, one of the Sberbank applications called Adults and Children allows parents to create certain tasks in the program for their children, for which they receive a certain amount of money, sending a notification about the work done. Children can spend money on purchases on the Internet, and the amount is debited from the parents' account. In addition, Sberbank is actively introducing elements of contextual advertising into programs such as Viber and WhatsApp, to regularly remind users of itself. A few other applications of the bank allow the client to view his brokerage accounts, individual investment accounts, conduct investment operations, analyze quotes, and place orders for various stock market instruments. The quantity and quality of services provided by the Russian banking system is determined, first, by the speed of solving the existing problems of this market (Table 1) [10].

Problems	Description
Low level of regional implementation of banking products	Banks are systemically important; they are mainly engaged in their branch network development in large Russian cities. In the regional centers, except for branches of Sberbank that remained from the Soviet era, large bank gamblers are not represented. There is no full range of banking services in small settlements, for example, such as factoring, the possibility of opening an impersonal metal account
Uneven development of IT technologies and Internet penetration into small settlements	Because of this problem, remote banking channels remain inaccessible for a significant part of the population
High commission percentage	Currently, for many operations carried out through banks, you must pay a percentage of the transaction being performed
High rate of financial illiteracy	Due to a significant percentage of the illiterate population in relation to knowledge about existing financial products, there is no development of lending processes, trading on the stock exchange, and distrust of the domestic

banking system remains

Table 1 The most significant problems in developing banking services in the national economy

5 Conclusion

For the effective development of the banking services market, it is necessary, first, to pay more attention to training bank employees in digital technologies, an equally important aspect is also improving the cybersecurity system. Most experts believe that POS loans are most sensitive to negative dynamics emerging in the banking market. The considered sphere of lending most quickly loses the volume of clients and loans, but at the same time, it can increase the volume of issued loans more quickly than others. We should point out that there are several alternative approaches to find resources financing the national economy. First, it is worth paying attention to financial institutions of China and India, which can provide support and compensate for the lost sources of funding. It should be said that support for the national banking sector can be provided by government funds formed in the period before the active phases of the crisis unfolded. During active phases of the economic crisis, government support measures made it possible to allocate about 860 billion rubles to key important banks of the Russian Federation to lower interest rates and increase deposits. In our opinion, the following statistics are quite interesting: following the direction of globalization of the national banking sector, Russia annually loses dozens of banks a year. The reasons for banks' withdrawal from the market are different: from the inability to compete with TNB and national players, to the revocation of a license

by the Central Bank of the Russian Federation. At present, due to various government measures, the national banking system can resist the imposed and maintained sanctions, there are still problems with financing and gaining access to international loans and the situation, based on recent events, takes place to deteriorate. In the emerging paradigm of banking sector institutions, it is necessary to reorient to the internal market—to search for internal clients and actively participate in increasing the profitability of their activities to build up a high-quality high-yield portfolio in the future.

References

- Salomatina SY (2021) Internet-banking as a part of Russian digitalization: The key trends. In: Ashmarina S, Mantulenko V (eds) Current achievements, challenges and digital chances of knowledge based economy, vol 133. Lecture notes in networks and systems. Springer, Cham, pp 817–823
- Kim D-H, Hsieh J, Lin S-C (2021) Financial liberalization, political institutions, and income inequality. Empir Econ 60(3):1245–1281
- Creel J, Hubert P, Labondance F (2021) The intertwining of credit and banking fragility. Int J Financ Econ 26(1):459–475
- Donetskova OY (2021) Interbank competition in the Russian banking market. Finance: Theory Pract 25(1):143–156 (2021)
- Mikhaylov AM (2021) Investment banking and its features in Russia. In: Ashmarina SI, Horák
 J, Vrbka J, Šuleř P (eds) Economic systems in the new era: stable systems in an unstable world,
 vol 160. Lecture notes in networks and systems. Springer, Cham, pp 664–668
- Dubyna M, Zhavoronok A, Kudlaieva N, Lopashchuk I (2021) Transformation of household credit behavior in the conditions of digitalization of the financial services market. J Opt Ind Eng 14(1):97–102
- 7. Feghali K, Mora N, Nassif P (2021) Financial inclusion, bank market structure, and financial stability: International evidence. Quart Rev Econ Finance 80:236–257
- 8. Esmaeili A, Haghgoo I, Davidaviciene V, Meidute-Kavaliauskiene I (2021) Customer loyalty in mobile banking: Evaluation of perceived risk, relative advantages, and usability factors. Eng Econ 32(1):70–81
- 9. Hassan M, Giouvris E (2021) Bank mergers: the cyclical behaviour of regulation, risk and returns. J Financial Econ Policy 13(2):256–284
- Petrov NA (2021) Main trends in the market of electronic financial services in Russia. In: Ashmarina SI, Horák J, Vrbka J, Šuleř P (eds) Economic systems in the new era: stable systems in an unstable world, vol 160. Lecture notes in networks and systems. Springer, Cham, pp 708–712