

**ANALYSIS OF THE DIGITAL CUSTOMER SERVICE SYSTEM IN
COMMERCIAL BANKS.**

Sh.A.Shirinova

Assistant of Navoi State University
of Mining and Technology

B.F.Xoliqov

Student of Navoi State University
of Mining and Technology

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Abstract. This article analyzes the current state of digital customer service systems in commercial banks and examines their impact on banking efficiency and customer experience management. The study focuses on the use of mobile banking, internet banking, CRM platforms, artificial intelligence-based service tools and Big Data analytics in improving the speed, accessibility and personalization of banking services. The article also identifies the main constraints affecting the effectiveness of digital customer service, including cybersecurity risks, technological infrastructure, digital literacy and institutional factors. Based on the analysis, the paper develops practical recommendations for improving digital service quality, strengthening customer-oriented management and expanding the use of innovative financial technologies in commercial banks.

Keywords: commercial banks, digital services, customer service, mobile banking, CRM, fintech, cybersecurity, customer experience.

Аннотация. В статье анализируется современное состояние системы цифрового обслуживания клиентов в коммерческих банках, а также её влияние на эффективность банковских услуг и управление клиентским опытом. Рассматриваются функциональные возможности мобильного и интернет-банкинга, CRM-платформ, элементов искусственного интеллекта и аналитики больших данных. Особое внимание уделяется факторам, ограничивающим развитие цифрового обслуживания: уровню кибербезопасности, состоянию технологической инфраструктуры, цифровой грамотности клиентов и институциональной среде. По результатам исследования предложены практические направления повышения качества цифровых услуг, развития клиентоориентированного управления и внедрения инновационных финансовых технологий в коммерческих банках.

Ключевые слова: коммерческие банки, цифровые услуги, обслуживание клиентов, мобильный банкинг, CRM, финтех, кибербезопасность, клиентский опыт.

INTRODUCTION

The rapid spread of digital technologies has fundamentally changed the organization of financial services. In the banking sector, digital transformation is no longer limited to the introduction of a mobile application or an internet banking platform. It has become a comprehensive managerial process that affects service design, customer communication, operational efficiency, risk management and long-term competitiveness. Commercial banks are increasingly required to provide services that are fast, secure, transparent and accessible through

several channels at the same time. The relevance of this topic is determined by the fact that the behaviour of bank customers has changed significantly in recent years. Customers expect not only traditional banking products such as deposits, loans and payment cards, but also convenient digital access, clear service conditions, remote identification, quick problem resolution and personalized offers. In this environment, the system of working with digital customers becomes an important factor that shapes customer loyalty and the reputation of a bank.

In Uzbekistan, reforms aimed at developing the digital economy, expanding non-cash payments and improving banking services have created favourable conditions for the modernization of commercial banks. Nevertheless, the effectiveness of digital customer service remains uneven across banks and regions. Some customers still face problems related to internet quality, lack of digital skills, technical failures, cybersecurity concerns and insufficient integration between branches, call centres and mobile channels.

The purpose of this article is to analyze the current state of the digital customer service system in commercial banks, identify the main factors influencing its effectiveness and develop recommendations for improving customer-oriented digital banking services. The research focuses on the interaction between technological innovation and customer experience, because the value of digital banking is determined not only by the availability of technologies, but also by their real usefulness for customers.

LITERATURE REVIEW

Theoretical and practical studies on digital banking emphasize that the transformation of bank services is closely connected with the development of financial technologies, customer relationship management and data-driven decision-making. Chris Skinner argues that the future of banking is associated with the transition from branch-centred services to digital ecosystems in which customers interact with the bank through integrated platforms. This approach highlights the importance of convenience, speed and continuity of service.

Brett King's concept of Bank 4.0 also shows that banking services are moving beyond traditional physical branches. According to this approach, banking should be embedded into the daily activities of customers and provided in real time. Mobile platforms, biometric identification, artificial intelligence and open application programming interfaces are considered key instruments for achieving such a model.

Research on customer relationship management, including the works of Francis Buttle and Stan Maklan, demonstrates that CRM systems are essential for analyzing customer behaviour, segmenting customers, forecasting needs and designing personalized offers. In banking, CRM is especially important because customer relations are long-term and involve repeated transactions, risk assessment and service support. Reports by international organizations such as the World Bank, OECD and IMF indicate that digital financial services can expand financial inclusion, reduce transaction costs and increase the efficiency of the financial sector. At the same time, these reports stress that successful digitalization requires reliable infrastructure, consumer protection, data security and effective regulation. Thus, digital banking development cannot be separated from institutional and cybersecurity conditions.

Studies conducted in Uzbekistan also show that mobile banking, remote services and fintech solutions are developing rapidly. However, the literature often focuses on the general growth of digital services, while the customer service dimension is less systematically analyzed. For this reason, the present article considers digital customer service as a multi-factor system that includes technology, service quality, customer satisfaction, institutional regulation and human capital.

METHODOLOGY

The research is based on a combination of comparative, dynamic, logical and analytical methods. The dynamic method was used to assess changes in key indicators of digital banking services over the period 2020-2025. Comparative analysis was applied to identify differences between traditional and digital models of customer service. Logical analysis and generalization were used to formulate scientific conclusions and practical recommendations.

The information base of the study includes official materials of the Central Bank of the Republic of Uzbekistan, annual reports of commercial banks, analytical publications of international organizations and scientific literature on digital banking, CRM, fintech and customer experience management. Since some indicators in open sources are presented in different formats, several values in the analytical table are used as generalized author estimates based on available sectoral trends. For this reason, the table should be interpreted as an analytical illustration rather than as a direct official statistical series.

Table 1.
Key indicators of the digital customer service system in commercial banks, 2020-2025

Indicator	2020	2025	Analytical interpretation
Number of mobile banking users, mln	8	28	Growth reflects the expansion of remote access to banking services.
Share of internet banking users, %	32	68	The use of online service channels increased significantly.
Share of cashless payments, %	38	72	Non-cash payment behaviour became more widespread.
Digital service transactions	210 mln	1.2 bln	The operational role of mobile and online channels strengthened.
Customer satisfaction level, %	54	81	Service speed and convenience improved, although quality remains uneven.
Fintech service integration level, %	20	63	Banks expanded cooperation with fintech and digital payment solutions.

Source: compiled by the author on the basis of Central Bank materials, commercial bank reports and generalized sectoral trend assessment.

The selected indicators make it possible to assess not only the technological side of digital banking, but also the customer-oriented dimension of this process. The growth of mobile banking users and the expansion of internet banking show that customers increasingly prefer remote channels. At the same time, the growth of customer satisfaction and fintech integration

suggests that banks are not only digitizing existing services, but also gradually changing the model of interaction with customers.

DISCUSSION AND RESULTS

The analysis shows that digital customer service in commercial banks is developing under the influence of several interrelated factors. First, digital channels reduce the need for customers to visit branches and allow many operations to be completed remotely. Payments, transfers, card management, online deposits and loan applications are becoming part of everyday financial behaviour. This reduces the operating burden on branches and creates opportunities for banks to optimize costs.

Second, digital customer service changes the nature of competition in the banking sector. In the traditional model, banks competed mainly through interest rates, branch coverage and product conditions. In the digital model, competition is increasingly based on application convenience, transaction speed, interface simplicity, service reliability, response time and cybersecurity. As a result, customer experience becomes a strategic asset.

Third, the development of digital services strengthens the importance of data. Every digital transaction, request, complaint and customer interaction generates information that can be used for segmentation, risk assessment and personalized service. Banks that effectively use CRM systems and data analytics can better understand customer behaviour and offer relevant services at the right time. However, this requires not only software, but also analytical competencies and internal coordination between business units, IT departments and risk management divisions.

Fourth, the effectiveness of digital customer service depends on cybersecurity. Customers will not actively use digital channels if they do not trust the safety of transactions and personal data. Therefore, banks should combine convenience with strong authentication, transaction monitoring, fraud prevention and clear communication about security rules. Cybersecurity should be regarded not only as a technical requirement, but also as part of customer service quality.

Fifth, digital transformation creates new requirements for bank employees. As standard operations move to digital channels, employees are expected to act more as consultants, problem solvers and digital service navigators. This means that training programs should focus not only on banking products, but also on digital literacy, CRM use, communication skills and the ability to explain digital tools to customers.

Table 2. Main problems and possible solutions in digital customer service

Problem	Impact on customer service	Recommended solution
Cybersecurity risks	Customers may avoid digital services because of fraud and data protection concerns.	Strengthen anti-fraud systems, biometric authentication and customer security awareness.
Uneven internet infrastructure	Remote services may be difficult to use in some regions.	Expand alternative access channels and cooperate with infrastructure providers.
Low digital literacy	Customers may not fully understand mobile banking functions.	Provide short instructions, video guides and branch-based digital consulting.
Weak integration of service channels	Customers repeat the same information in branch, call centre and app channels.	Develop omnichannel CRM and a unified customer request register.

Problem	Impact on customer service	Recommended solution
Shortage of IT specialists	Banks may face delays in implementing and maintaining digital solutions.	Improve training, certification and cooperation with universities and fintech firms.

Source: author's analysis.

The table shows that digital customer service problems are not purely technological. They are also connected with management, customer behaviour, institutional capacity and human resources. Therefore, improving digital services requires a systemic approach. A bank may have a modern mobile application, but if complaints are not resolved quickly or customers do not trust digital transactions, the overall service quality remains limited.

The international experience of countries such as Singapore, South Korea and the United Kingdom demonstrates that successful digital banking relies on integrated platforms, strong regulation, open banking, data protection and advanced customer analytics. Uzbekistan's banking sector is moving in this direction, but the next stage should focus on service quality rather than only on the number of digital users or transactions.

A particularly important issue is the transition from formal digitalization to customer-centred digital transformation. Formal digitalization means transferring traditional services into electronic format. Customer-centred transformation means redesigning the whole service process from the viewpoint of the customer. For example, an online loan application should not simply copy paper procedures; it should reduce unnecessary steps, provide clear information, ensure fast feedback and allow customers to track the status of their application.

Another important result is that digital services can improve financial inclusion. Customers living far from large cities, small entrepreneurs and individuals with limited time can access banking services without visiting a branch. However, this potential can be realized only if digital services are simple, stable and understandable. Otherwise, digitalization may create a new gap between customers who can easily use technology and those who cannot.

RECOMMENDATIONS

Based on the analysis, several recommendations can be proposed for improving digital customer service systems in commercial banks. First, banks should develop a unified omnichannel customer management model. All customer requests from branches, call centres, mobile applications, websites and social networks should be recorded in one system. This will help reduce repeated requests and improve service accountability.

Second, banks should strengthen the use of CRM and data analytics. Customer segmentation should be based not only on age or income, but also on behaviour, transaction frequency, preferred channels, product usage and complaint history. Such an approach allows banks to design more relevant offers and increase customer loyalty.

Third, cybersecurity measures should be integrated into customer service strategy. Banks should regularly inform customers about fraud risks, safe use of mobile applications and methods of protecting personal data. At the same time, authentication systems should remain convenient and not create excessive barriers for legitimate users.

Fourth, digital literacy programs should be expanded. Commercial banks can organize short practical instructions in branches, create simple video guides and provide digital service support through call centres. This is especially important for older customers and users in regions where digital skills are still developing.

Fifth, cooperation with fintech companies should be developed on a controlled and regulated basis. Fintech partnerships can help banks introduce faster payment solutions, remote

identification, personal finance management tools and innovative scoring models. However, such cooperation must be accompanied by data protection, compliance and risk management standards.

CONCLUSION

The digital customer service system in commercial banks is becoming one of the main determinants of competitiveness in the banking sector. The study shows that mobile banking, internet banking, CRM platforms and fintech solutions are changing the way banks interact with customers. Digital channels reduce service time, expand access to banking products and create opportunities for personalized service.

At the same time, digital transformation does not automatically guarantee high-quality customer service. Its effectiveness depends on cybersecurity, technological infrastructure, digital literacy, employee competencies and the integration of service channels. If these factors are not managed systematically, digital services may increase customer dissatisfaction instead of improving service quality.

The findings of the article suggest that commercial banks should move from simple digitization of operations to customer-centred digital transformation. This requires redesigning service processes, strengthening data analytics, improving cybersecurity, developing omnichannel CRM and increasing customers' digital literacy. In this case, the digital customer service system can contribute not only to the efficiency of banks, but also to financial inclusion and the broader digital transformation of the economy.

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