

Development of Bank Marketing in the Conditions of Digital Transformation in Azerbaijan

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Abstract

The efficiency and competitiveness of banks in today's financial market increasingly depend on the adoption of advanced banking services and technological innovations. This study explores the concept of digital banking, examines the digital banking model in Azerbaijan, and analyzes current trends in the digitalization of the country's banking sector. It identifies the key perspectives for the development of digital banking and associated marketing strategies within the context of Azerbaijan's digital economy. This research utilizes analytical methods to assess the current state of the Azerbaijani banking sector. Economic data were collected, systematized, and analyzed to identify challenges and opportunities related to the integration of digital technologies in banking marketing activities. Based on the findings, the study outlines practical prospects for implementing financial technologies in bank marketing and provides targeted recommendations. The research is grounded in the regulatory frameworks of Azerbaijan and selected international examples.

Keywords: Digitization; Digital technologies; Advertising; Competition; Consumer.

1. Introduction

In the current era of global transformation, countries around the world are undertaking significant initiatives to advance digitalization, entering a new phase of technological and economic development [1]. Among the most prominent topics of discussion are the implementation of digital technologies, the digitalization of economies, and the transition toward fully digital economic systems.

The primary objective of this research is to address the application of marketing principles within banks, aiming to enhance the efficiency of their economic activities in the context of digital transformation. This study focuses specifically on the Azerbaijani banking sector, where digital technologies are increasingly shaping the way banks interact with customers and deliver services.

Today, nearly all banks in Azerbaijan offer online and mobile banking platforms, enabling customers to perform transactions anytime and anywhere. The expansion of digital payment methods including electronic payment systems, mobile payments, and cryptocurrencies has further simplified financial transactions. The adoption of

technologies such as blockchain, chatbots, automation tools, and artificial intelligence (AI) is becoming widespread, revolutionizing banking operations in the country.

One notable milestone was achieved in 2023 when Birbank, Azerbaijan's first fully digital bank, launched a new product called "Digital Deposit" through its mobile application. This innovation allows users to complete the entire process online, offering a 9% return over a 12-month period as part of a promotional campaign.

Additionally, global digital payment services such as Apple Pay and Google Pay were introduced in Azerbaijan starting in November 2021 and August 2023, respectively. The inclusion of Azerbaijan among the 45 countries where Google Pay is available highlights the progress of its banking sector. Another notable achievement was the introduction of a world-first initiative: the delivery of bank cards through a partnership with the Wolt delivery service.

Digitalization is evolving rapidly bringing transformative changes approximately every three years. As a result, the use of cognitive systems such as ChatGPT is expected to grow, alongside the advancement of big data analytics, which will allow banks to extract actionable insights from increasingly complex datasets.

2. Application of Digital technologies in the Financial Sector

The application of digital technologies in the financial sector has significantly transformed traditional banking operations, leading to the elimination or automation of many conventional functions. This digital shift has enabled banks to streamline internal processes and introduce innovative functional products to the market. Notable examples include IBA Mobile by the International Bank of Azerbaijan, Birbank by Kapital Bank, and chatbot-based services offered by Pasha Bank and Rabitabank, among others. These digital solutions enhance customer service by simplifying access to banking services and improving the efficiency of information collection and management. Additionally, there is increasing demand for software tools that assess the creditworthiness of potential clients not only based on financial history but also on social and behavioral data. These tools represent a growing trend in the integration of advanced analytics and artificial intelligence in the banking sector, contributing to more accurate and personalized financial decision-making [2].

Nowadays, there is a comprehensive application of innovative technologies (fintech's) in the provision of financial services around the world, as fintech's have become the main means of providing an advantage in a highly competitive environment, as a complex system that combines new information technologies and financial services, as well as startups and relevant information. According to the calculations of some international auditor organizations, fintech's have already acquired 30% of the banking market and 25% of the insurance market. The main reasons for this are the development of new financial technologies, the expansion of online lending and financing, the emergence of robotic versions of artificial intelligence, the increase in innovations in payment systems, the widespread use of advanced technical solutions (cloud technologies, open interfaces of application programming), the emergence of virtual currencies and virtual banks. and so on. Naturally, the emergence of these technologies

is related to the desire and demand of the modern generation of people to purchase services in digital form in order to save time and money.

The successful development of fintechs in the world depends on the volume of investments in this field and infrastructure. This is fully confirmed by the experience of the USA, Europe and leading Asian countries. These countries have attracted large-scale investments in the development of fintechs. As a result, according to the analysis of 2023, there were 72,560 startups operating in the United States. This once again proves that currently the direction of investments is rapidly changing towards innovations, and it would be appropriate to take this into account in Azerbaijan. [3]

Digitization of the banking sector, e-commerce and other innovations in the financial sphere have almost ensured the transition from cash to virtual money in a short period of time. But on the other hand, this transition has also raised cyber security issues. Indeed, the use of fintechs in an ill-considered manner can lead to dangers. Therefore, it is necessary to take a comprehensive look at ensuring security during the implementation of fintech projects. [4].

3. Application of Digital Banking in Azerbaijan

Nowadays, the adoption of mobile and digital banking has intensified across most banks in Azerbaijan. These digital platforms now offer a wide range of services, including online loan issuance, money transfers, and various types of payments like utility bills, loan and interest repayments, tax obligations, and insurance premiums. The accessibility and convenience of these services, often integrated with mobile operators, have played a significant role in expanding the customer base, attracting both individual and corporate clients [5].

Globally, estimates suggest that the digital economy accounts for approximately 4.5% to 15.5% of global GDP, reflecting its growing importance in economic development. Notably, the United States and China contribute nearly 40% of the global value added in the information and communication technology (ICT) sector. Additionally, countries such as Taiwan, Ireland, and Malaysia have some of the highest shares of ICT in their respective GDPs, highlighting their strong integration of digital technologies into national economic structures [6].

The development of the economy and the competition in the market of banking products make the problem of obtaining timely and relevant information about customers urgent for commercial banks to ensure effective activity. In this regard, banking organizations should use various methods of obtaining that information promptly. An important aspect in this matter is the application of the latest methods of marketing research as a basis for collecting information about potential and existing customers. According to researchers' estimates, the share of Internet projects in the marketing budgets of commercial banks exceeded 75% during 2020-2022. This shows that the use of digital technologies in bank marketing is preferred over the use of traditional types of marketing communications.

In the modern activity of a commercial bank, customer marketing research is not applied actively enough. Often, one-to-one surveys are conducted and this does not provide the bank with comprehensive information for its effective operation. In this

regard, customer behavior, financial security trends, etc. it is important to apply new methods for constant research of customers of banking services in order to identify changes [7].

The ever-increasing competition among commercial banking organizations forces banks to use more advertising, as well as completely change the marketing concept. Increasing the loyalty of regular customers and attracting new ones depends on the degree of use of modern methods related to the development of digital technologies for sales stimulation. Achievements in the field of information technologies and the pursuit of this or that marketing concept by a commercial bank are closely related. It is the development of information technologies that makes its own adjustments to the selection of this or that marketing policy, and the general marketing concept is based on this.

4. Advantages of Digital Banking

Global experience demonstrates that the primary advantages of digital banking include:

- Digitization of the bank's business processes [8]
- Employment of qualified personnel [9]

Digital banks achieve significant resource savings by reducing the need to open additional branches and by eliminating expenses related to ATM networks and their security. Moreover, digitalization substantially decreases the time required to deliver services to both individual and corporate clients. This transformation enables banks to adopt both standard and innovative marketing approaches.

Traditional marketing strategies often involve media and contextual advertising distributed via the global internet. Media advertising, such as internet banner ads, is frequently employed by banking organizations due to its measurable effectiveness tracked by metrics like click-through rates and website visits. Commercial banks prefer media advertising because of its high trust level and memorability among consumers [10].

Banks are essential components of the monetary economy, closely linked to the broader processes of economic reproduction. Serving as a critical nexus between industry and commerce, banks support all economic actors by providing necessary financial services. The demand for banking services persists continuously, reflecting their integral role in the commercial market economy.

In contemporary society, the reliance on banks is growing steadily. People increasingly seek banking services for various needs such as obtaining loans, making money transfers, or opening accounts. As banks become more central to everyday economic activities, it is crucial for individuals to understand the fundamental functions and operations of banks to navigate the financial landscape effectively.

Banking services are intellectual products, developed through careful market research and tailored to customer needs. Ultimately, banking services are designed to generate profit for the institution. Considering these factors, banking services can be broadly defined as the provision of financial products and solutions that meet market demand while ensuring the bank's profitability.

Banking service is a professional intellectual product consisting of a number of banking operations created for the purpose of optimal fulfillment of the client's requirements and implementation in the market and profit.

Banking services have the following features:

- Mainly abstract; the consumer does not see their material substance during reception; they acquire a certain character based on the contract signed between the bank and consumers of banking services [11]
- Their presentation is related to use in different forms and qualities (money of enterprises or individuals, cash and non-cash money, in electronic form or on paper, in various monetary documents);
- Buying or selling many services depends on the length of time. For example, in order to get a loan, open a deposit, get a bank security, or sign up with the bank in a secure way, the consumer of the service has more or less contact with the bank.

When we look at electronic banking, it is understood that due to the application of the most modern innovations of technology to the traditional banking system, transactions are electronic, and traditional banking is replaced by computers, the Internet, and ATMs. E-banking allows users to open accounts, borrow money, check account balances, and make money transfers online. E-banking has a great impact on the banking system and interbank online conflict. With the change of banking technologies, more and more users are joining e-banking services. E-banking has changed the nature of traditional banking processes.

These 5 elements affect the level of e-service:

- ease of use,
- website design,
- customization according to the buyer's request,
- accountability
- guarantee [12]

The provision here covers security and privacy issues. They are very important in gaining the trust of the buyer. The beginning of the 80s of the 20th centuries is considered the beginning of the development of a new era of banking services provided to customers. It was the development of the computer system and the delivery of bank transactions directly to the customers' homes or offices. The range of banking services provided increased the list of traditional banking services provided to customers. It reflects data services as well as simple settlement operations.

Banks provide various consumers and small business owners with the opportunity to perform their daily activities from home or wherever they are with a telephone or modem connection. This service, called home-banking, online banking or PS banking, allows customers to perform some operations: money transfers between accounts, making payments, checking the balance, buying and selling securities, etc. [13].

Until recently, the market for banking services has been a seller's market when customers have more money (due to inflation) and banks have less. However, recently, with the stabilization of inflation, the increase in the refinancing rate and the chronic lack of cash reserves of the main customers of banking institutions, the market for banking services has turned into a buyer's market. Since then, most banks have started looking for new ways to attract customers. For this purpose, they can apply successful marketing.

To ensure profitability, the bank needs to attract new customers. About 80% of households in the developed countries of the West consume banking services. Attention should be paid to the quality and diversification of services offered by banks: current and savings accounts, credit and debit cards, long-term bank loans, emergency loans for the purchase of a house or car, rental of deposit safes for storing jewelry, etc. [14].

Most of the banking services provided to households in Azerbaijan are mainly limited to deposits, short-term loans and debit plastic cards. Therefore, banks offer new types of services to existing customers in their strategies [15].

The changes in the activities of banks due to the digitization of the economy were more clearly observed in 2023. So, let's look at the previous years we can clearly see that mobile banking services are practically non-existent. Because previously mobile technologies were not widely used in Azerbaijan and were mainly used only for calling and sending messages. Payment methods were mostly cash, and the market for plastic cards was just emerging.

In Azerbaijan, the collection of data was first digitized in banks. It was just necessary to create an easy and time-saving opportunity. But as many issues related to customers and transactions have gone digital, they have also become data in the hands of the bank. Since 2018, digitalization data has been used in Azerbaijan.

In 2023, it is possible to see the impact of digitalization even more clearly. Almost all banks in Azerbaijan offer online and mobile banking services, which allows customers to carry out their transactions wherever and whenever they want. Payment methods are now more diverse and easier to use - including new forms such as electronic payment systems, mobile payments, and even cryptocurrencies.

Blockchain and cryptocurrency payments, chatbots, automated processes and other technologies are already widely used in banking in Azerbaijan.

The International Bank of Azerbaijan is considered one of the largest banks in Azerbaijan. Azerbaijan International Bank In the development strategy for 2023-2025, the main intention is to flexibly develop the bank while preserving its current achievements, to further strengthen the bank's main market positions in relevant segments, to form new customer experiences with innovative solutions in line with modern challenges and to create high satisfaction, to form new standards in the sector, is to contribute to the national development priorities of our country in various directions.

IBA has set these strategic goals for 2023-2025:

- Maintain market leadership in segments;
- Achieving a data-driven digital experience;
- Increase the number of users by expanding the functionality of the ABB mobile application;
- To promote the implementation of transactions through digital channels in corporate, as well as small and medium-sized businesses;
- To develop decision-making tools based on the available data in the bank, thereby significantly increasing the level of customer orientation;
- Achieve superior customer orientation;

- Increasing the quality of services provided to corporate customers by reducing the service period for important products due to the introduction of new technologies in the direction of business;
- To speed up the satisfaction of customers' needs, fulfill their wishes more flexibly and thereby increase customer satisfaction and loyalty [6].

As a result of the measures implemented according to the 2022 report, the market share of the International Bank for business loans was 15%, the market share for consumer loans was 17%, and the market share for housing mortgage loans was 31%. The bank managed to conduct 91% of its corporate and SME customers' operations through digital channels. The bank's market share for non-cash payments made by retail customers reached 15%. In addition, the number of customers registered in the mobile application of the International Bank of Azerbaijan has exceeded 1.4 million, and the number of active users of the application has exceeded 500 thousand people.

Digitization processes at the International Bank of Azerbaijan have already expanded. Service systems are continuously improved to meet customer needs faster. By implementing "Agile" transformation, it is tried to achieve the formation of the "Agile" way of thinking. Improving customer-oriented sales and increasing customer satisfaction is ensured by developing data analytics tools and infrastructure. New and crossover businesses are built by continuing to apply proven models and approaches in practice. It enters modern market segments by applying innovative technologies and innovations in the financial field that have been successful in global markets.

It is known that technologies have fundamentally changed the work of the banking sector in recent years. Customers want their banking services to be available 24/7, no matter where they are. These changing consumer behaviors require constant innovation. Technologies are becoming more affordable, cheaper and universal. Consequently, banks need to reassess their capabilities. Because the banking sector is sensitive to changes. Technology companies and startups are increasingly trying to increase their competitiveness by offering new, innovative products and services.

As of August 2022, cardholders of the International Bank of Azerbaijan can make payments through Apple Pay as well as Google Pay. It is a convenient and secure payment solution that allows users to make fully contactless payments with Android devices. As a result, the number of mobile users of the International Bank of Azerbaijan exceeded 1 million in 2022. In order to ensure continuous improvements and customer satisfaction, customer reviews are regularly collected through short surveys conducted among the International Bank of Azerbaijan mobile users. The International Bank mobile app, which runs on both Android and iOS, enables customers to perform routine account management activities, including money transfers, applying and paying for loans, utility bills, tuition payments and many other transactions, easier and faster [6].

Thus, the number of active International Bank of Azerbaijan mobile users in 2022 was 521 thousand people, and the number of newly registered International Bank of Azerbaijan mobile users was 448 thousand people.

5. Current Status of Digital Payments in the Country's Market and Work Done

As a result of ongoing systematic reforms in the financial sector, the Central Bank of Azerbaijan has developed a modern Electronic Payment System (MEP) based on advanced technology and software architecture. This infrastructure has significantly contributed to the expansion and efficiency of digital payments across the country.

In 2020, the total volume of payment transactions processed through the MEP amounted to 223.4 billion AZN, with a total of 59.8 million transactions. While the transaction volume decreased by 19% compared to the previous three years, the number of transactions increased by 50%, indicating a rise in the frequency of smaller payments. The Government Payment Portal, also operated by the Central Bank to centralize budgetary and public service payments, processed transactions totaling 3.3 billion AZN across 51.9 million payments in 2020. These figures represent an increase of 34% and 39%, respectively, over the past three years.

Additionally, the Interbank Card Center facilitated 53.2 million card transactions during 2020. Transaction volumes reached 2.75 billion AZN in the national currency, 14.6 million USD, and 3.1 million EUR. Compared to 2018, the number of transactions processed through this system nearly doubled (1.9 times), with transaction volumes increasing by 2.8 times for AZN, 2.6 times for USD, and 1.6 times for EUR.

Significant improvements have also been made in card infrastructure over the past three years. As of January 1, 2021, a total of 9.6 million payment cards had been issued by banks and the national postal operator, with 39% of these cards being contactless. Compared to 2018, the total number of payment cards grew by 44%, while the number of contactless cards increased by 5.5 times. The country's payment infrastructure included 2,779 ATMs, 57,344 POS terminals of which 60% (34,181) support contactless payments and 1,928 payment terminals as of January 2021, including those operated by "Azerpocht" LLC. Relative to 2018, the number of ATMs grew by 8%, contactless POS terminals increased by 57%, and payment terminals grew by 24%.

These developments highlight Azerbaijan's strong progress in building a robust digital payments ecosystem, supporting the transition toward a cashless economy and enhanced financial inclusion. The share of non-cash payments in card payments increased from 9.5% to 22.7% over the last 5 years. Nevertheless, this indicator is in the range of 60-70% in advanced countries such as Estonia and Russia. This, in turn, shows that there is a great potential for development in this field. During 2020, only 16% of payments in retail trade circulation in the country were made in cashless form through payment cards. The corresponding indicator was 28% in Turkey, 49% in Great Britain, and 70% in Russia.

Figure 1 depict the structure of payment card transactions by volume in %. The volume of domestic e-commerce transactions has increased 12.1 times over the past 5 years, and the volume of non-cash transactions through POS-terminals has increased 4.1 times, see Figure 2.

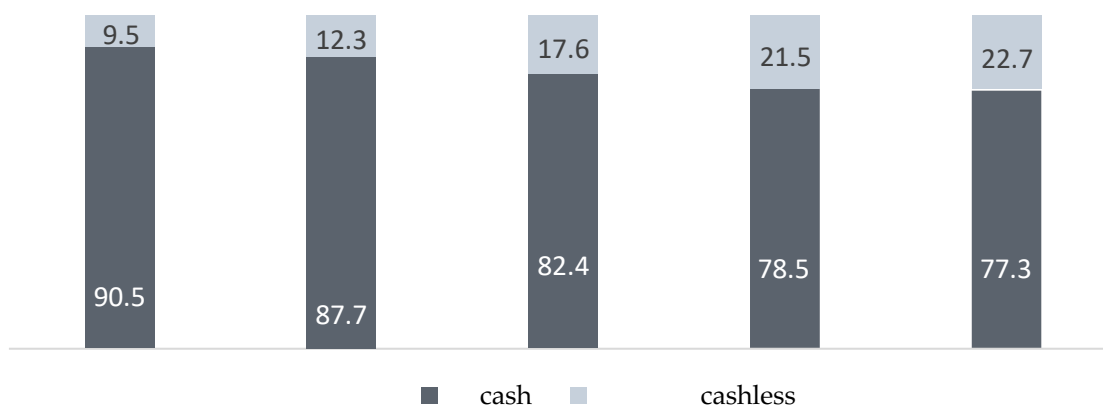


Figure 1. Structure of payment card transactions (by volume, %)

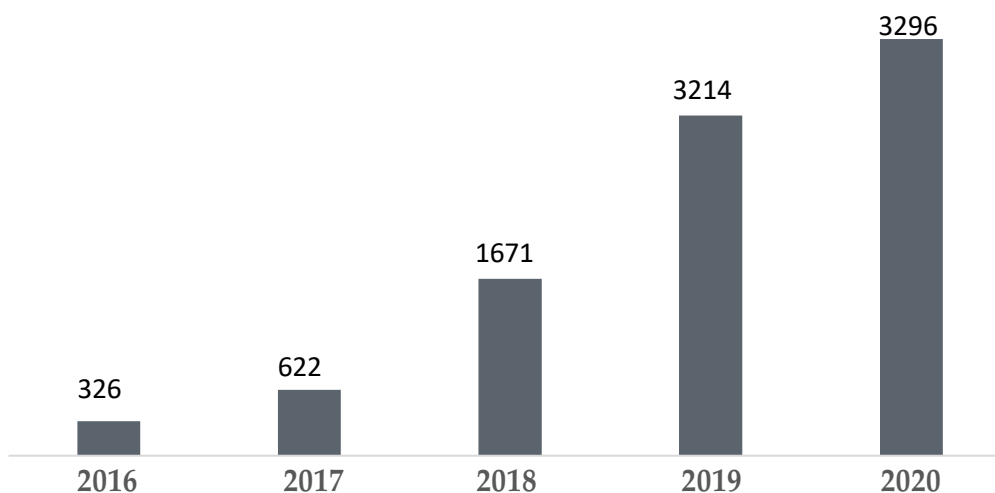


Figure 2. Volume of domestic e-commerce transactions (million manats)

Additionally, Figure 3 depict the volume of non-cash POS-terminal operations in the country.

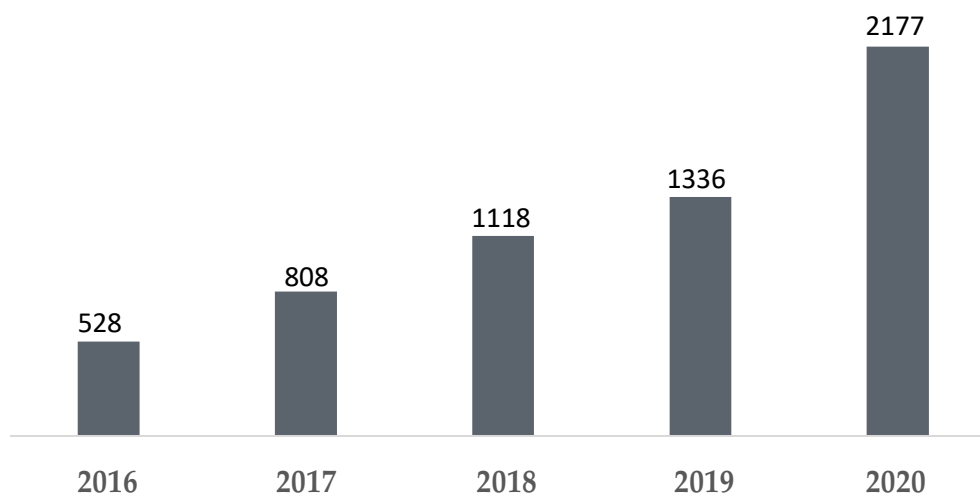


Figure 3. The volume of non-cash POS-terminal operations in the country (million manats)

Despite the high growth rate of the indicators in a short period of time, the non-cash payment habits of the country's population remain low. So, while 1 citizen in Azerbaijan

made 15 non-cash payments on average in 2020, this indicator is higher in advanced countries like 184 in Latvia, 318 in Russia, and 450 in Great Britain.

In recent years, positive dynamics have been observed in terms of indicators of the use of electronic banking services. Thus, in 2020, 75.2% of the number and 61.6% of the transfers from bank customers' current accounts were made through e-banking. In other words, 61.6 manats of every 100 manats of customer transfers made from current accounts were made electronically via the Internet or mobile banking. For comparison, let's note that these indicators exceed the number and volume indicators of 2016 by 47.6 and 57 percentage points, respectively. Figure 4 depicts the structure of customer transfers from current accounts by volume in %.

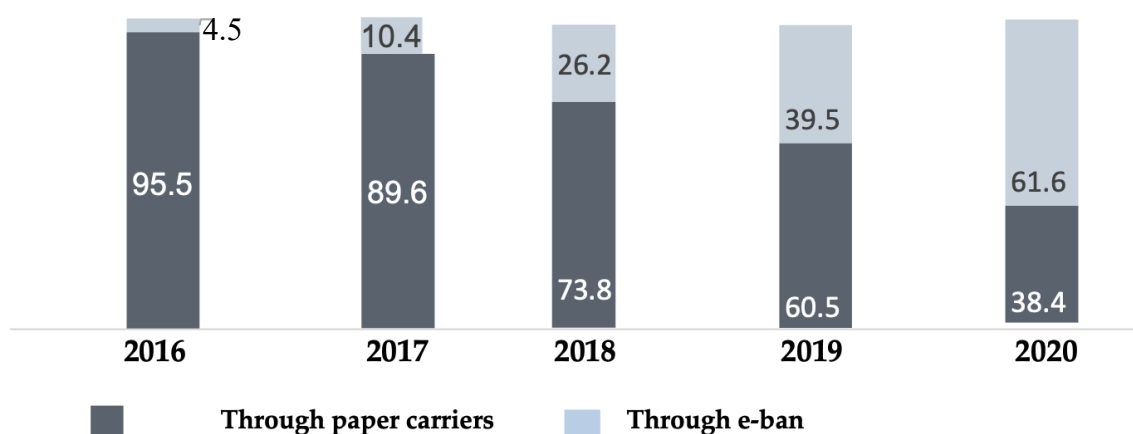


Figure 4. Structure of customer transfers from current accounts (by volume, %)

8. Summary and Conclusion

Digitalization enables banks to reshape their services based on evolving customer needs and to implement changes more flexibly. The integration of innovative technologies such as biometrics, video recognition, chatbots, and artificial intelligence enhances security and improves the quality of remote customer services, adding significant value to banking operations.

In 2023, the number of bank customers in Azerbaijan increased by 6.7%, equivalent to 898,369 new clients, reaching a total of approximately 14.2 million people. This growth reflects an accelerated transition to digital banking, driven by the adoption of new IT solutions and their demonstrated impact on profitability across the banking sector.

However, digitization demands substantial investments and skilled human capital. Consequently, while some Azerbaijani banks are leaders in digital transformation, others lag behind. Digital banking essentially digitizes all traditional banking transactions, offering numerous benefits: customers can access services without visiting branches or waiting in lines, while banks reduce branch congestion and optimize staff productivity. This shift reduces the need for large physical offices and additional personnel, boosting bank profitability. Moreover, the virtual execution of banking operations enhances transparency a key reason for government encouragement of digital banking.

Despite these advantages, digital banking systems require careful management. The expansion of technological solutions fundamentally affects banks' business models, and the outcomes positive or negative must be anticipated. For example, legislative restrictions in Azerbaijan limit certain data-sharing services, which restricts banks from utilizing some digital services fully. However, the future may see the emergence of local scoring companies that analyze data from external third parties to offer new credit scoring methods. New participants might also arise, such as trusted third parties managing data storage outside of banks. These innovations will bring regulatory challenges, particularly regarding cybersecurity and financial risk management.

Learning from international experience is essential. Globally, digitization has led to fewer bank branches and employees, increased investments in IT development, extended operating hours (24/7 service models), shortened transaction times, and broader remote service provision. Adopting similar practices in Azerbaijan can enhance banking efficiency and customer satisfaction.

Within the European Union, various regulatory frameworks guide the application of reliable technological solutions and artificial intelligence. For instance, the European Central Bank's guidance on AI emphasizes principles such as legality, ethics, and sustainability. Establishing similar regulatory standards in Azerbaijan would help banks evaluate innovations more effectively before implementation.

To foster the expansion of digital banking and encourage non-cash payments, it is critical to complement banking infrastructure with ongoing education, promotion, and awareness campaigns targeting both legal entities and the general population. Many clients avoid digital banking services due to lack of awareness or insufficient skills to use these tools. It would be appropriate to put forward a number of proposals to accelerate the development of the digital bank:

- Developing a theoretical and conceptual basis for studying the essence, content and application of banking innovations in the digital economy as an innovative process that changes the institutional and organizational forms of banking;
- During the implementation of institutional reforms and implementation of banking, innovations and new banking risks are formed. For this purpose, creating opportunities to strengthen cyber security measures in banks;
- Prepare the staff to work quickly and train competent specialists for the population to carry out bank transactions quickly and conveniently;
- Creation of conditions for operative work of working capital in digital banking operations in banks.

Conflict of interests

We would like to confirm that there is no conflict of interests associated with this publication and there is no financial fund for this work that can affect the research outcomes.

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