

# Digital Transformation in Georgian Banking: Trends and Current Level of Adoption

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## ABSTRACT:

The significance of digital technologies is crucial in contemporary times. This is especially pertinent for the banking industry, enabling it to deliver high-quality customer service and address market challenges promptly. This article examines the current state of the Georgian banking system, focusing on digital services and products, and the advances banks have made in integrating innovative digital technologies. Using specific criteria, the study evaluates the level of digitization within the banking sector, identifying strengths and areas for improvement. The research also explores the digital transformation experiences of developed countries' banking sectors and considers how these could be implemented in Georgia, taking into account the unique context and challenges faced by the country. The study aims to assess the digital readiness and challenges faced by Georgia's banking sector, leading to the formulation of recommendations to speed up the digital transformation process and enhance competitiveness. Both quantitative and qualitative research methods are used in the research. The digital banking products and services offered by commercial banks are analyzed, with statistical conclusions derived from quantitative data, providing a comprehensive overview of the sector's digital maturity. In the end, the study evaluates the challenges and future prospects for the digital transformation of Georgia's banking system, offering strategic insights and practical solutions for policymakers and industry stakeholders.

*Keywords: Georgian banking, innovation, digital transformation, mobile banking, online banking, digital payments*

## 1. Introduction

In modern times, digital technologies have permeated nearly all sectors, propelling each field into new stages of development. Given current trends, the digitization of banks is inevitable. Presently, the digitization of the banking system is a critical topic due to its significant importance. The digitization of banking not only enhances services but also helps reduce costs and boost profitability. As global technological advancements make it possible to digitize any banking service, user demands are also evolving. Thus, adopting new digital technologies should be a priority for every bank.

Digital transformation in the banking sector transcends mere technological upgrades, it fundamentally reshapes the relationship between banks and their customers, as well as the values and principles guiding their operations. Globally, the banking industry has experienced profound changes, with traditional banks increasingly competing with digital banks. This competitive landscape drives innovation and agility across the sector.

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According to World Bank data, Georgia is an upper-middle-income economies country making significant strides in digital technology adoption. The Georgian banking system is notably undergoing substantial changes, being one of the most developed sectors in this regard. Banks continuously strive to introduce digital services and products to enhance customer experiences. However, the extent of digital transformation varies significantly among different banks in Georgia, underscoring the importance of assessing the level of digitization.

**Research goals and objectives:** The commercial banks in Georgia have the potential to effectively transform into digital banks swiftly. Thus, this research aims to evaluate the digitization level of Georgia's banking system and to identify the digital readiness and challenges in line with current trends. By analyzing foreign practices, the study aims to compare Georgia's digitization level with that of advanced countries, providing recommendations to elevate the digitization of Georgia's banking sector.

Based on the research objectives, the tasks include evaluating digital services and products in Georgia's banking sector using quantitative and qualitative indicators. This assessment will analyze the banking sector's digital readiness and current challenges. The subsequent part of the study focuses on analyzing foreign practices. A key task is to determine how the practices of advanced countries align with the Georgian context.

Digitization in the banking sector has been accelerating globally, driven by advancements in technology, changing customer expectations, and competitive pressures. Here are some key trends:

**Mobile Banking and Apps:** The proliferation of smartphones has led to a significant increase in mobile banking. Banks are investing heavily in mobile apps to provide customers with convenient, 24/7 access to their accounts. These apps offer a wide range of services, from balance checks and money transfers to loan applications and investment management.

**Digital Payments:** There has been a substantial shift towards digital payments, driven by the convenience and security they offer. Technologies such as contactless payments, mobile wallets, and peer-to-peer payment systems are becoming mainstream.

**Online Banking Services:** Traditional banks are expanding their online offerings to include a full suite of services that were previously only available in branches. This includes account opening, loan applications, investment services, and customer support through chatbots and virtual assistants.

**Blockchain and Cryptocurrencies:** Blockchain technology is being explored for its potential to improve the security and efficiency of transactions. Some banks are also starting to offer services related to cryptocurrencies.

**Artificial Intelligence and Machine Learning:** AI and ML are being used to enhance various banking processes, including fraud detection, risk management, customer service, and personalized financial advice. These technologies help banks to analyze large datasets to provide more personalized services and improve operational efficiency.

**Open Banking:** Open banking initiatives, which require banks to open their APIs to third-party developers, are fostering innovation and competition. This allows customers to benefit from a wider range of financial services and products that are seamlessly integrated with their banking data.

**Cybersecurity:** As banking becomes more digital, the importance of cybersecurity measures increases. Banks are investing in advanced security technologies, such as biometric authentication and encryption, to protect customer data and prevent fraud.

In the wake of the digitization process, the financial sector is undergoing a profound transformation. This transformation has led to the emergence of neo-banks and challenger banks, two innovative financial entities that are reshaping the banking landscape. Simultaneously, it further accelerates the digitization process. Both types of banks are revolutionizing the entire industry by prioritizing customer experience, reducing fees, and utilizing innovative technologies such as artificial intelligence, blockchain, and big data analytics. These trends contribute to simplifying access to financial services and increasing competition in the banking sector.

Looking at the global neo-bank market, there is a clear trend of using artificial intelligence to improve operations and create new opportunities. This helps neo-banks strengthen customer relationships and enhance financial performance. Neo-banks use artificial intelligence to replace traditional methods with chatbots, voice assistants, and video consultations. Europe holds the largest share of the global neo-bank market. After Europe, North America has the second-largest market share.

Overall, the digitization of the banking sector is reshaping how banks operate and interact with customers, making banking more accessible, efficient, and secure. This transformation is expected to continue as technology evolves and customer expectations continue to rise.

## 2. Literature review

Numerous studies detail how the trend of digitization has improved the banking industry in a variety of ways. Studies (Pham et al., 2024; Nguyen, Ho and Nguyen, 2023; Do et al., 2022) aim to determine the effect of digitization on the profitability of banks in Vietnam, revealing a positive impact on the growth of bank profitability. This perspective is further supported by research focusing on Nigeria, where all the digital banking channels examined contribute significantly to the profitability of Nigerian banks (Udobi-Owoloja et al., 2020; Orji et al., 2018). Therefore, digitization is not just a trend but an essential requirement for growth and success. This is attributed to several factors:

**Cost-effectiveness:** Banks can reduce the requirement for physical infrastructure by streamlining processes through digitization. Higher profitability is the result of much lower operating expenses brought about by Internet banking and related operations. In the studies, the authors (Bueno et al., 2024; Slobodanyk et al., 2024; Abuselidze & Zoidze, 2024) discuss the growth of digitization and its effects, highlighting that digitization is redefining operational efficiency and customer experience. Similarly, the studies (Feld, Giacobbo and Schuster, 2021; Cruz et al., 2010) examine the impact of digitization on bank fees through an econometric study, revealing that digital banking has reduced bank fees in Brazil from 2009 to 2019.

**Increased Customer Base:** Customers may conduct financial operations and receive services anytime, anyplace, thanks to the convenience and accessibility that digital banking offers. Increased customer satisfaction translates to greater usage of banking services, boosting bank revenues. In the studies (Veseli-Kurtishi, Hadzimustafa and Veseli,

2020; Rao et al., 2022) authors discuss the impact of digitalization on customer satisfaction. The study concludes that transaction speed affects customer satisfaction: as transaction speed increases, customers are more satisfied.

**Expanded Markets:** Digitization breaks down geographical barriers, enabling banks to reach customers without physical access to bank branches. As user numbers grow, so do revenue streams and profits. The study (Nnaomah et al., 2024) highlights that digital banking significantly promotes financial inclusion, making banking services accessible and convenient for a wider audience.

**Data Analytics and Personalization:** Modern banking platforms enable the analysis of vast amounts of data. Through algorithms, banks can gain valuable insights into customer behavior. This information allows banks to increase profits by offering personalized products and financial advice. The studies (Sharma et al., 2024; Abuselidze & Mamaladze, 2021; Khani et al., 2024) notes that with the rise of artificial intelligence, personalized banking solutions have become more prevalent, offering more customer-centric services. Additionally, in the study (Garg, Popli and Sarao, 2021) the authors notes that the growth of data in the modern period raises new challenges, for which digitization is necessary.

**Innovation and Competitive Advantage:** Banks may differentiate themselves in a crowded industry and increase income by providing digital goods. In his work (Smirnov, 2022), the author explores the competition between digital and traditional banks. The study highlights that digitization enhances each organization's ability to solidify its market position. Therefore, traditional banks must not overlook the competitive edge digital banks have and should intensify their efforts towards full digitization of their operations.

Similarly, in the studies (Kumar Jha, 2022; Tarasenko et al., 2022; Abuselidze, 2021), the authors examine the connection between the digitization process and competitiveness. The study's findings indicate that digitization directly influences the competitiveness among Indian banks, demonstrating that the process of digitization is crucial for maintaining and improving competitive standing in the banking sector.

### 3. Methods

To assess the level of digitization in the banking sector of Georgia, both qualitative and quantitative methods were employed in this research.

#### *Quantitative Methods*

Quantitative data were collected from banks that publicly share statistics such as the number of digitally active customers, digitally enabled products, and the share of digital transactions. This information was obtained from the management and financial statements of banks over several years.

#### *Qualitative Methods*

As part of the qualitative research, a survey was conducted with bank employees. This survey included questions related to digital services and products available in the bank for individuals, such as mobile/internet banking functions, remote account opening, chatbot integration, remote deposit opening/closing capability, remote lending, and digital cards. For legal entities, the survey covered Business Internet Banking, Business Mobile Banking, online business account registration, automatic payments, integration with

accounting programs, and Digi-pass. Based on these criteria, the level of digitization in the banking sector was evaluated.

Additionally, customers of various banks were surveyed electronically. This part of the research emphasized the factors influencing the consumption of digital banking services and the level of customer satisfaction. Overall, the consumer survey assessed customers' attitudes towards the digitalization of the banking sector.

## **4. Results and Discussion**

### **4.1 Research on the level of digitization in the banking sector of Georgia**

The National Bank of Georgia's 2023 report on sustainable finance states that there is a significant degree of concentration in Georgia's banking industry. The two largest banks, "Bank of Georgia" and "TBC Bank," own 77% of the total banking assets (National Bank of Georgia, 2023). The dominance of these banks indicates that banking trends are primarily determined by their activities. Notably, these banks excel in introducing digital innovations. Therefore, it is crucial to examine the digitization processes within these banks in detail.

The first iteration of Internet and Mobile Banking was developed by the Bank of Georgia in 2006. The bank introduced an improved version of the mobile bank application in 2017, adding many functionalities to the previous version. Consequently, the use of Internet and mobile banking has significantly increased in recent years. In 2018, the function of borrowing and repayment was added to mobile bank. A new business online banking platform was launched by the Bank of Georgia in 2019 for corporate and micro, small, and medium-sized business clients. The goal of this platform was to make accounting and management of company transactions easier for users. A Personal Financial Manager (PFM), a tool for classifying and evaluating spending, was added to mobile banking. It examines the user's financial activity and makes recommendations in light of the findings (JSC Bank of Georgia, 2019).

In 2020, the COVID-19 pandemic presented both challenges and opportunities for banks, making the digitization of certain processes necessary, which had a beneficial effect on the path of digital transformation. The banking sector was able to adapt quickly and transitioned to remote operations. The Bank of Georgia released a business mobile application in 2021 and enhanced its digital channels with important features throughout COVID-19, including digital cards, completely remote consumer financing, online chat, robust authentication, peer-to-peer payment, and digital onboarding.

In addition to these digital products, the Bank of Georgia has implemented various payment methods, including contactless payments, Apple Pay/Google Pay, QR codes, and Buy Now, Pay Later (BNPL). Leveraging artificial intelligence systems, an AI virtual assistant capable of performing more than 20 tasks has been introduced for Internet banking users. Additionally, Business Internet Bank users can receive personalized business offers based on artificial intelligence.

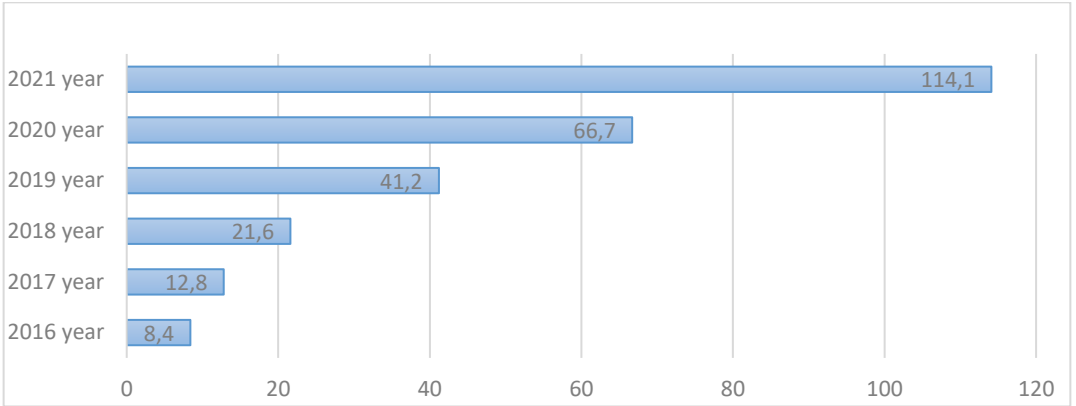


Figure 1: Number of mBank and iBank transactions (million).

Source: Compiled by the authors according to the data of the management reports of JSC Bank of Georgia.

As we can see, there have been a lot of changes, particularly in the last few years, with a notable rise in the quantity of distant retail transactions.

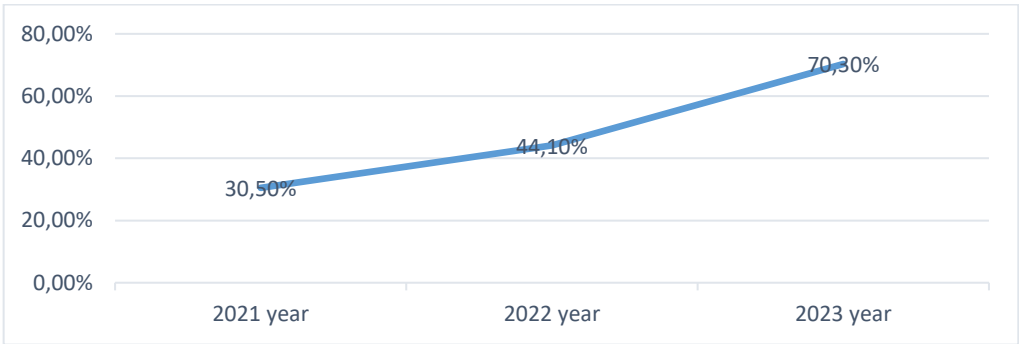


Figure 2: Share of digitally enabled products (%).

Source: Compiled by the authors according to the data of the management reports of JSC Bank of Georgia.

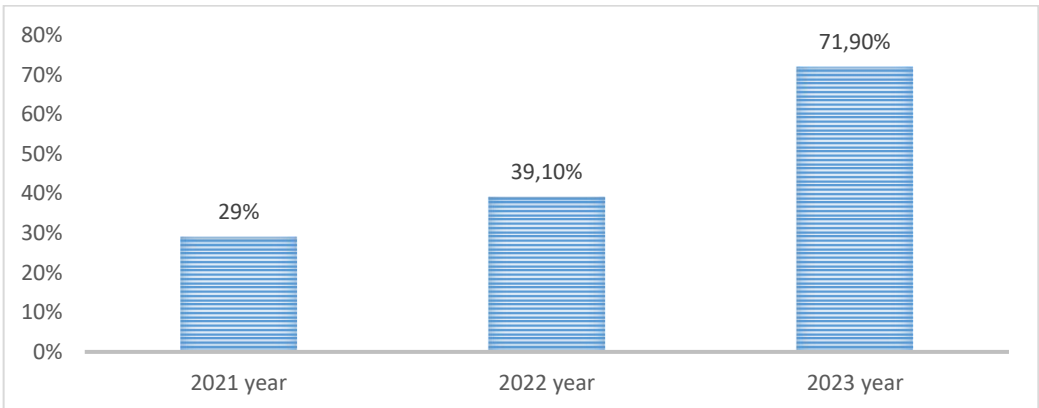


Figure 3: Share of digitally enabled deposits (%).

Source: Compiled by the authors according to the data of the management reports of JSC Bank of Georgia.

The share of products activated through digital channels has increased. Moreover, in 2023, there is an exceptional increase in terms of the growth of opening both all products and deposits through digital channels.

As for TBC Bank, the development stages of its digital services are illustrated in the figure 4:

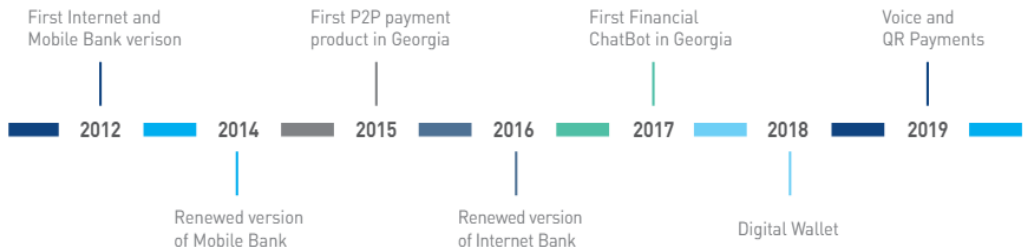


Figure 4: Development stages of digital services.

Source: Management report of JSC TBC Bank.

As an alternative to the conventional plastic card, the bank also unveiled a virtual digital card. Online mortgage loan and installment systems were also developed. Functionality has been introduced for business users to improve data analytical capabilities, including the ability to analyze sales by day of the week and time of day and assess how discounts affect sales and customer loyalty (JSC TBC Bank, 2020). End-to-end lending process for refinancing loans and BNPL limit offer are also introduced.

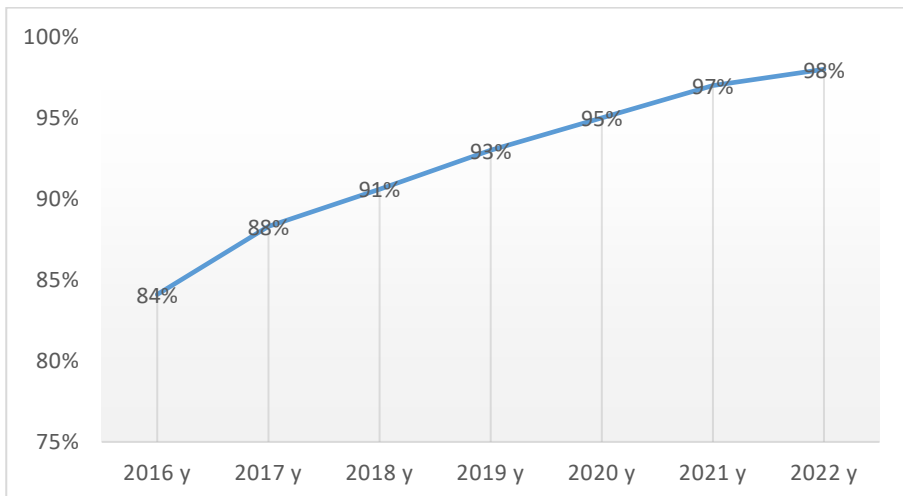


Figure 5: Retail offloading ratio (%).

Source: Compiled by the authors based on the data of management reports of JSC TBC Bank.

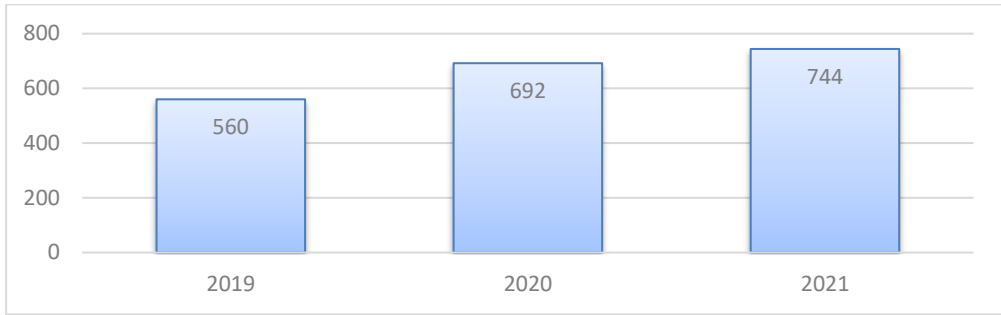


Figure 6: The number of retail digital users (thousand).

Source: Compiled by the authors based on the data of management report of JSC TBC Bank.

As we can see, most retail transactions are conducted remotely, which emphasizes how traditional banking is being replaced by digital transformation.

To evaluate the level of digitization in the banking sector, we employed several criteria within the framework of our research. These criteria are categorized for individuals and legal entities. They pertain to digital services and products in the banking sector that enable customers to access banking services remotely, without the need to visit a branch. While we understand that the criteria used in our evaluation may not cover everything, we chose them based on what we see happening in Georgia's banking sector and what our research found.

As part of the research, visits were made to commercial banks and representatives of 13 banks were surveyed using a questionnaire. Additionally, a telephone survey was conducted with representatives of the 14th bank. Responses were collected regarding the digital products and services offered by each bank, providing insights into the level of digitization within the banking sector of Georgia.

The first criterion for evaluating digital services in a bank is the variety of Internet and mobile banking functions, including automatic payments and transfers, as well as receiving and sending remittances. These services are particularly convenient for individuals, and their integration into Internet and mobile banking increases the likelihood of receiving services through digital channels.

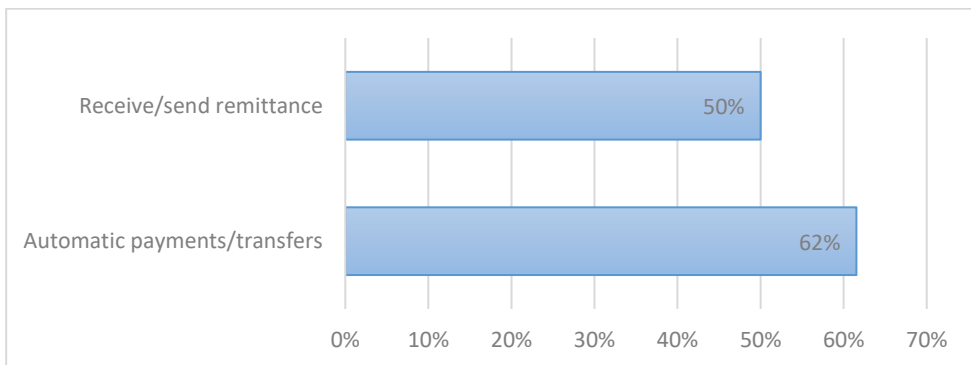


Figure 7: Internet and mobile banking functions (%).



As indicated by the results, only a small portion of the banking sector in Georgia can offer the mentioned services remotely<sup>1</sup>. Sending and receiving remittance is possible remotely in only half of the banks. The absence of such internet and mobile banking features significantly hinders the digitalization of financial services. For the segment of the banking sector in Georgia that lacks these services, this represents a challenge not only in terms of digitization but also in significantly reducing the competitiveness of the banks.

Biometric verification for account verification enables users to open accounts remotely, offering convenience and accessibility. This functionality is particularly significant because it eliminates the need for customers to visit a branch in order to become a bank customer and access other services.

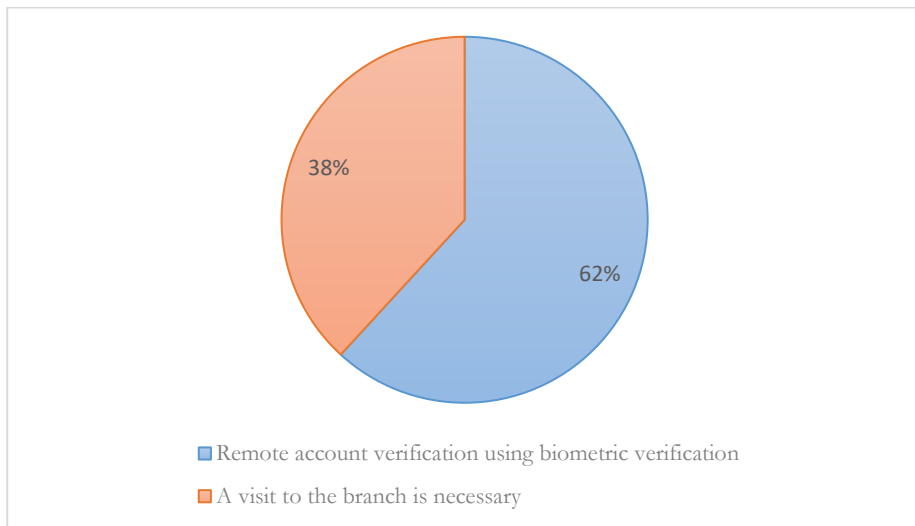


Figure 8: Ability to verify account remotely (%).

As evidenced by the results, over half of the banks provide customers with the option to open an account remotely. However, a significant portion - 38% still necessitate at least one branch visit for customers to become clients of the bank. In such instances, clients are not only restricted from opening an account remotely but also from accessing other banking products. Therefore, addressing this issue is crucial to support the digitization process.

Another banking product that accompanies the digitization process is the implementation of chatbots. One of the primary advantages of chatbots in banking is their capability to offer instantaneous, round-the-clock customer service. Moreover, integrating chatbots substantially diminishes the operational costs of banks: by automating mundane tasks, banks can deploy human resources towards more complex and valuable endeavors. Consequently, the integration of chatbots into banking operations is regarded as a pivotal criterion of digitization.

<sup>1</sup> It is implied that only those banks which have the mentioned products can offer remote remittance services. Additionally, in some banks, the ability to receive a remittance remotely depends on the type of remittance.

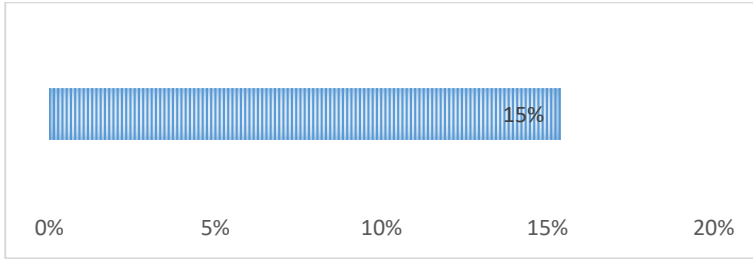


Figure 9: Chatbot integration in commercial banks in Georgia (%).

This indicator is the worst compared to other measures, which is a big problem. Even though AI-powered virtual assistants exist, not having a chatbot makes it hard to compete digitally. Banks offer online services, but customers may have to wait, especially outside of regular business hours. The absence of this service poses a significant challenge for most banks in Georgia's banking sector.

According to the research, if a customer already holds an account with a specific bank, they can open and close deposits remotely in the majority of Georgian banks. Specifically for the purpose of digitization, in most commercial banks, customers receive higher interest rates when opening deposits through remote channels compared to branch openings. This significantly encourages the adoption of digital channels by users.

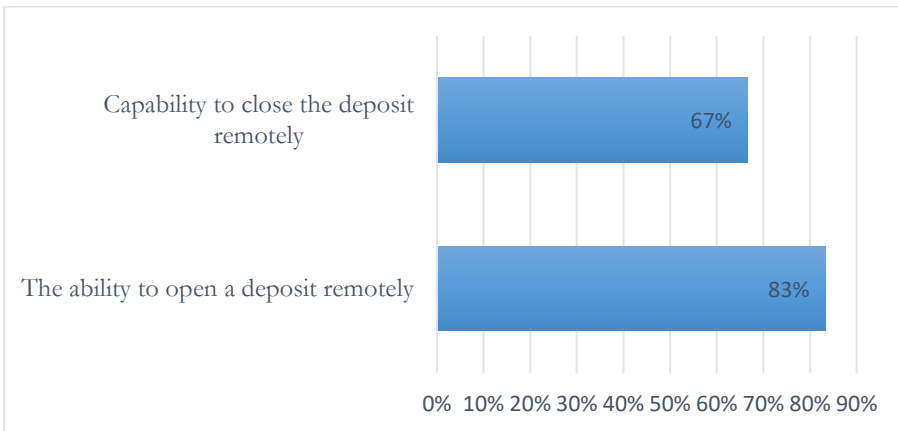


Figure 10: Ability to open/close a deposit remotely (%).

As observed from the data, among the selected criteria, remote opening of deposits is an indicator present in almost the entire majority of banks. Regarding deposit closure, some banks that allow remote deposit opening require a branch visit for deposit closure.

Digital lending processes are convenient for both borrowers and lenders. Customers can apply from anywhere, anytime, using smartphones or computers. Therefore, by offering remote lending processes, financial institutions can extend their reach beyond local markets. Within the scope of this study, the feasibility of remote lending is considered the next criterion of the digitization process.

In 73% of the Georgian banking system that provides loans, it is possible to obtain a loan through digital channels, which is a positive indicator. However, in the digital age, such services should be accessible to all bank users.

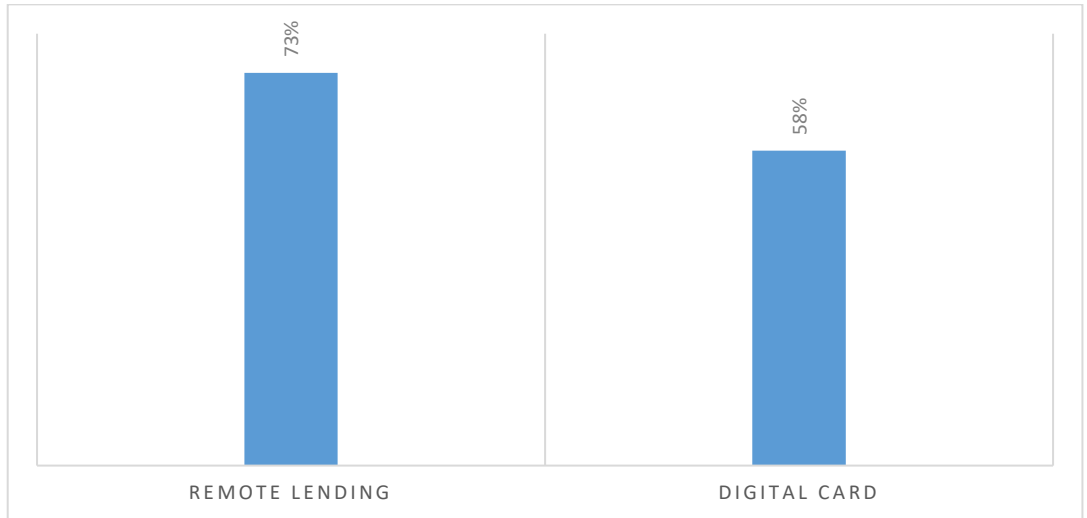


Figure 11: Possibility of remote lending and digital card integration (%).

A digital card is an electronic version of a traditional card that can be seamlessly integrated with other digital services. Fifty-eight percent of banks in Georgia's banking sector have implemented this product.

Business Internet Banking and Mobile Banking are digital platforms that streamline various banking processes, such as payments, transfers, and account management, thereby reducing the time and effort required to perform routine tasks.

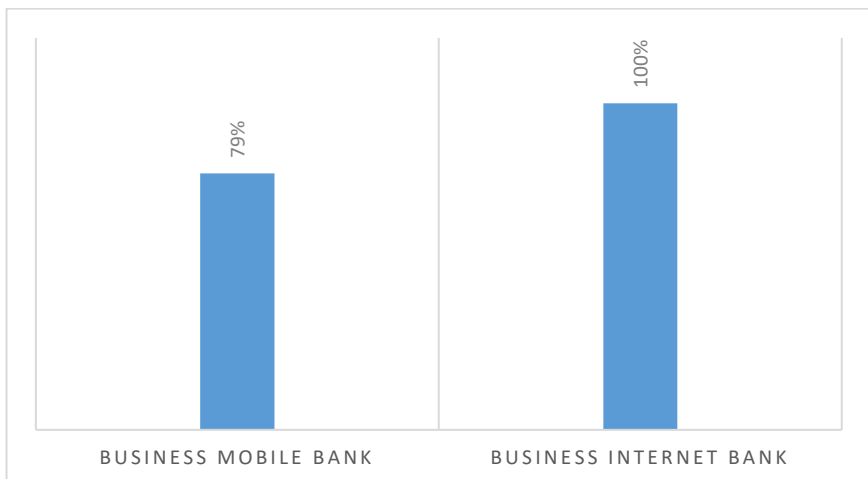


Figure 12: Business mobile/internet bank (%).

In the banking sector of Georgia, despite the fact that 100% of banks have a business internet banking service, only 79% of them offer a business mobile banking service. This underscores the necessity of improving digital channels in all areas.

It is highly convenient for both individuals and businesses to open an account remotely. Opening an account without additional procedures, documents, and time provides a significant level of comfort for businesses. The results obtained from the evaluation based on this criterion are presented in the diagram:

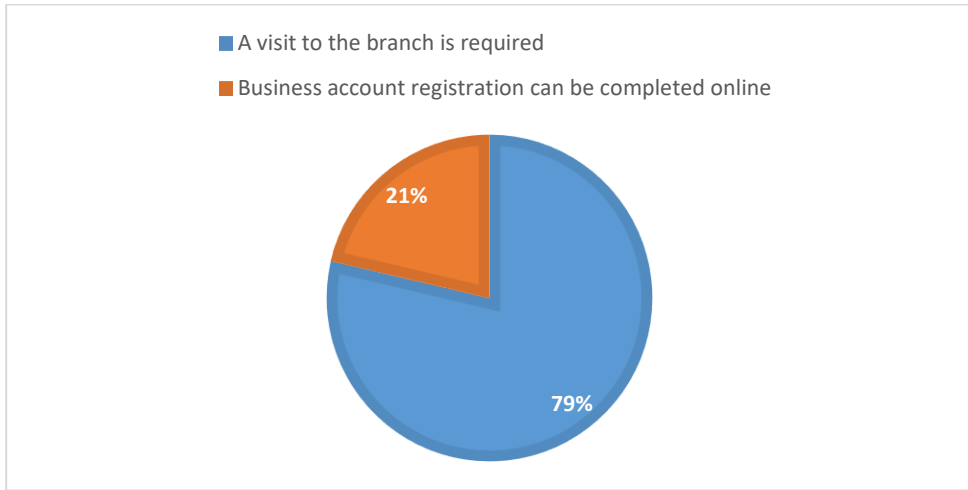


Figure 13: Account registration for legal entities remotely (%).

Despite the relatively high rate for individuals, 79% of banks still require a visit to a branch to register a business account. This result, the lowest among the indicators, highlights the need to improve digital accessibility.

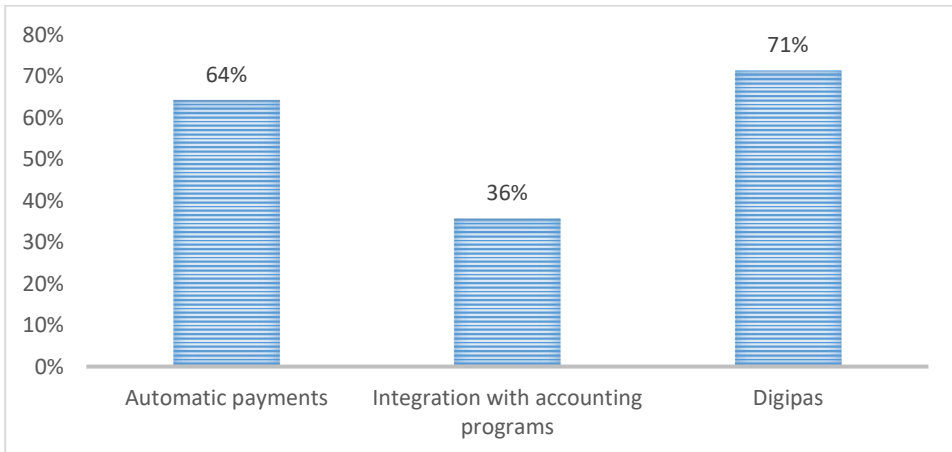


Figure 14: Digitization indicators of business internet banking (%).

Automated payments are crucial for businesses as they eliminate the risk of human error associated with manual data entry, thereby reducing the likelihood of payment errors

such as double payments or incorrect amounts. However, only 64% of banks offer this service, which indicates a modest adoption rate considering its significance in digital business operations.

Integration with accounting software facilitates seamless data flow between banking and accounting systems, minimizing the necessity for manual data entry. This integration mitigates errors by automatically synchronizing transactions and reduces administrative costs and time expenditures. Nevertheless, the availability of this service among banks in the Georgian banking system stands at a mere 36%, indicating limited implementation.

Digi-pas plays a pivotal role in business internet banking by enhancing security through two-factor authentication. It helps mitigate risks associated with unauthorized access and fraud, thereby bolstering customer confidence and ensuring secure online transactions. Fortunately, the majority of banks in the Georgian banking sector provide this essential service.

The findings of the research provide insights into digital services and products within the banking sector of Georgia. Regarding individuals, it was observed that most banks need further refinement of their internet/mobile banking functionalities. Additionally, chatbots, which are increasingly popular globally, are rarely found in the Georgian banking market, indicating a lower level of digitization. Their integration into banking services is deemed essential in the contemporary digital era.

For both individuals and legal entities in the majority of Georgia's banking sector, remote account opening remains a significant challenge, essential for advancing the digitalization process. Furthermore, for legal entities, banks need to offer additional services or products such as integration with accounting programs, automatic payments, and Digi-pass functionalities.

#### **4.1.1 The Importance of Overcoming Digital Challenges**

The digital transformation of the banking sector is a crucial driver of competitiveness and efficiency in the modern financial landscape. In Georgia, however, several significant barriers are impeding this transformation. Limited availability of remote internet and mobile banking services, the necessity of physical presence for account opening, restricted integration of chatbots, and the inability to manage certain accounts remotely are notable challenges. These issues not only hinder customer convenience and satisfaction but also reduce the overall operational efficiency and competitiveness of Georgian banks.

The restricted availability of internet and mobile banking services in the Georgian banking sector significantly hinders the digitalization process. This limitation reduces the competitiveness and overall efficiency of banks by preventing customers from performing essential banking operations remotely. The digital features currently offered are insufficient for meeting modern banking needs, which in turn affects customer convenience and satisfaction. Enhancing these services is crucial for banks to stay competitive in an increasingly digital world. By expanding their remote service offerings, banks can improve operational efficiency and customer loyalty.

The necessity for at least one branch visit for account opening in over 38% of Georgian banks presents a considerable barrier to digital transformation. This requirement

not only limits customer access to banking products but also highlights a significant gap in the sector's digitalization efforts. The need for physical presence undermines the convenience that digital banking should offer, thereby reducing the appeal of these banks in a competitive market. Eliminating this requirement is essential for banks to fully embrace digital transformation, streamline operations, and enhance customer experiences.

The limited integration of chatbots in Georgian banking operations poses a significant challenge to digital competitiveness. The absence of this technology affects banks' ability to provide round-the-clock customer service and manage operational costs efficiently. Without chatbots, banks are unable to offer a seamless and immediate customer experience, which is increasingly expected in the digital age. Investing in chatbot technology is crucial for improving customer service, reducing operational costs, and maintaining a competitive edge in the digital banking landscape.

The inability to open and close deposit accounts remotely in some Georgian banks is a significant impediment to digital adoption. This requirement for in-person visits not only inconveniences customers but also slows down the overall digital transition of the banking sector. The inefficiency caused by this limitation impacts customer satisfaction and operational productivity. To foster full digital adoption, banks need to enable remote management of all account types. This would enhance customer convenience, streamline banking operations, and accelerate the digital transformation process.

Ultimately, the lack of digital services can lead to customer attrition. In an era where convenience and speed are paramount, customers are likely to switch to banks that offer more efficient and accessible digital services. Addressing the digitalization challenges in the Georgian banking sector is essential for improving customer convenience, operational efficiency, and competitiveness. The attitudes of consumers regarding the mentioned issue are studied in more detail in the next sub-chapter. Expanding remote internet and mobile banking services, enabling fully online account opening, integrating chatbots, and allowing remote management of all account types are critical steps towards achieving a seamless digital transformation. By tackling these issues, Georgian banks can enhance their digital offerings, meet modern customer expectations, and secure a stronger position in the competitive global banking landscape.

## **4.2 Consumer Attitude Research**

In addition to researching the digitization process, it is crucial to comprehend bank customers' attitudes towards digital products and services. Over time, particularly in the aftermath of the Covid-19 pandemic, consumer perceptions of banking services have evolved. During periods of restricted physical access, consumers were compelled to rely on digital channels, significantly accelerating the adoption of digital services.

Even though the banking sector in Georgia is becoming more digital, full digitization depends on whether customers are willing to embrace these changes. It's also crucial to conduct customer satisfaction research.

The research involved 526 respondents who are customers of various banks. The survey was conducted using Google Forms.

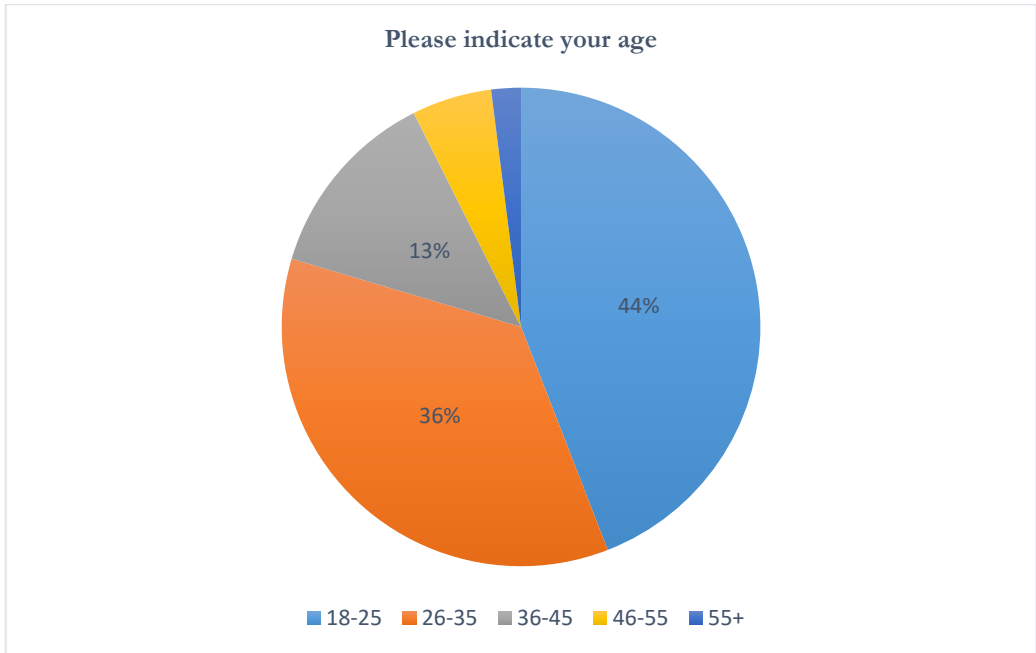


Figure 15: Age distribution of respondents (%).

Source: Google Forms survey.

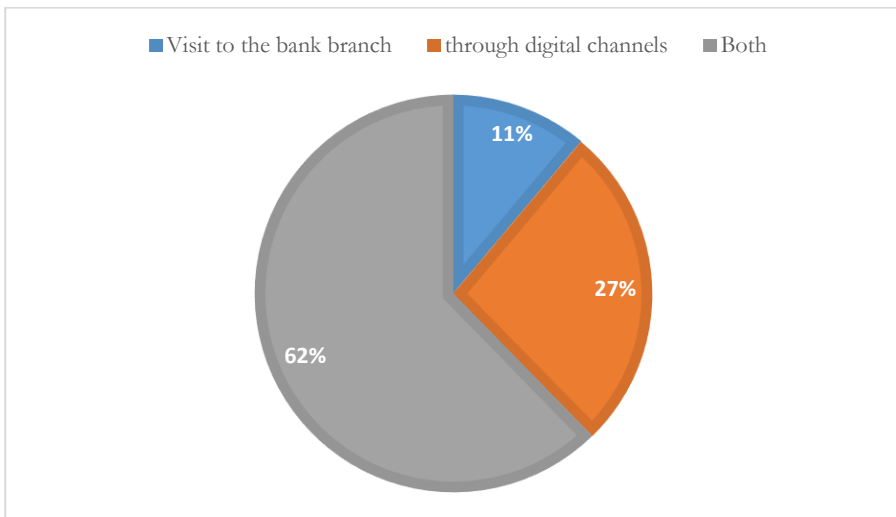


Figure 16: Which channels do you primarily use for banking services? (%)

Source: Google Forms survey

As it turned out, the majority of customers access services through both branch visits and digital channels. Nevertheless, it is noteworthy that a greater number of customer only use digital channels than only go to the bank branch. This suggests that a significant proportion of respondents find digital channels more preferable for service delivery.

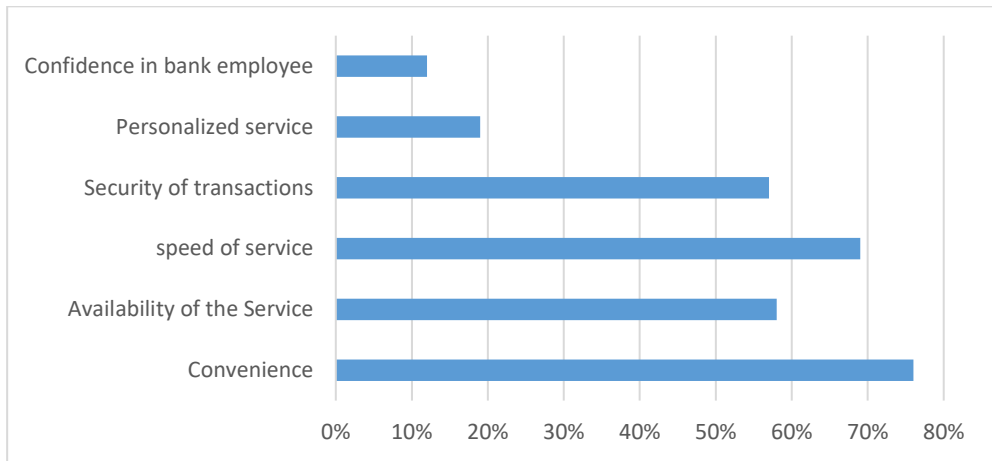


Figure 17: What factors influence your choice between traditional and digital banking methods? (select all possible options).

Source: Google Forms survey.

Factors such as convenience, speed of service, availability, and security of transactions influence the majority of respondents when choosing between traditional and digital banking methods. Relatively less influential, but still significant, are factors such as trust in the bank employee and personalized service.

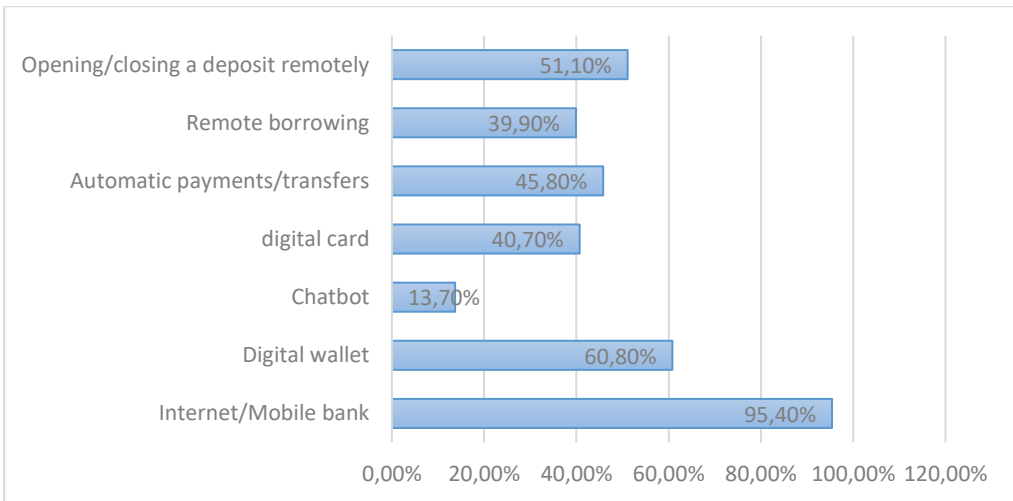


Figure 18: Which digital products offered by your bank do you use? (select all possible options).

Source: Google Forms survey.

Most respondents use digital services such as internet/mobile banking, digital wallets, remote deposit opening/closing, and automatic payment/transfer services. This high level of usage is driven by customer demand and the fact that the majority of banks offer these services and products. Research indicates that services such as digital cards,



chatbots, and remote loan services are available in a relatively small number of commercial banks. Consequently, users do not have a variety of choices in this regard, which is reflected in the survey results.

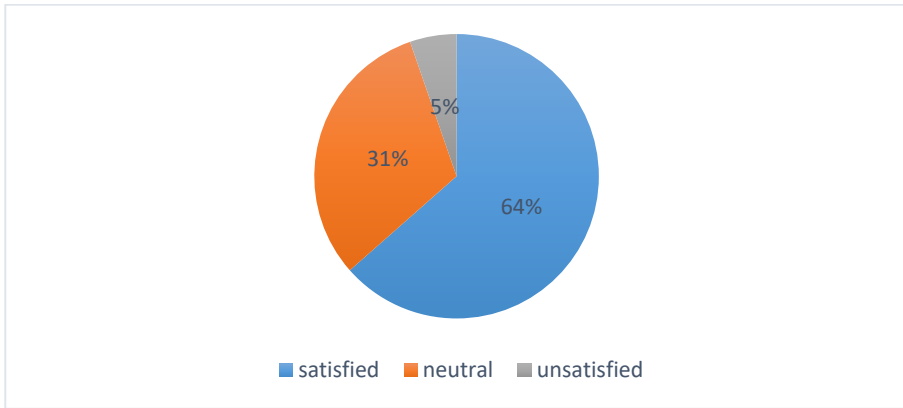


Figure 19: How satisfied are you with the digital features offered by your bank's internet/mobile banking?  
Source: Google Forms survey.

The next question addressed customer satisfaction with the features available in internet/mobile banking. A total of 64% of users expressed satisfaction with the existing features, while a significant portion, 31%, remained neutral on the issue.

The next question asked if users had ever faced technical problems while using digital banking services. A large majority of respondents, 87.6%, reported experiencing these issues. This indicates that the services banks offer are not always working perfectly. Such problems can lead to a frustrating experience for customers and lower their satisfaction.

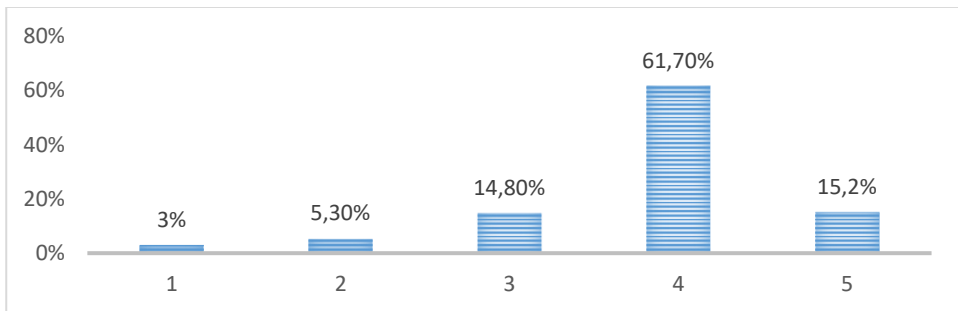


Figure 20: How satisfied are you with the security measures implemented in your bank's digital products? (1 means very dissatisfied, 5 means very satisfied).  
Source: Google Forms survey.

The responses received in this instance emphasize that, in many cases, customers are satisfied with the security measures implemented by the bank in its digital products.

The majority of respondents (75.3%), when asked whether they consider the digital products provided by their bank to be innovative compared to those offered by

other banks, believe that their bank's products are indeed innovative. However, a significant portion also perceives them as not innovative at all.

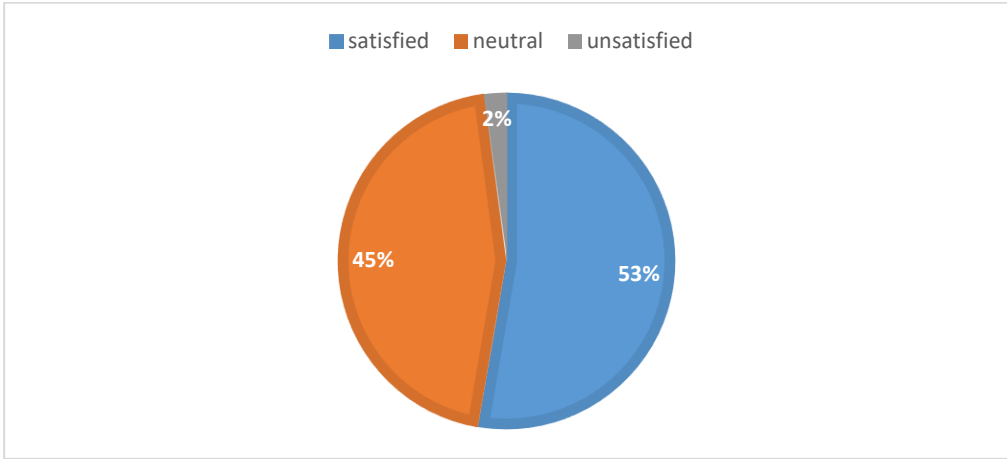


Figure 21: How satisfied are you with the customer support provided when using digital services?  
Source: Google Forms survey.

As indicated by the research findings, more than half of the respondents express satisfaction with the customer support service, although a significant portion, 45%, remains neutral on the matter. While every bank operates a customer support center, the survey results suggest that there may be delays in responding to customer support issues related to digital services, possibly due to technical challenges requiring substantial effort to rectify. Consequently, this delay impacts the overall satisfaction of customers. Nonetheless, these findings underscore the necessity of bolstering customer support centers specifically concerning digital services and products.

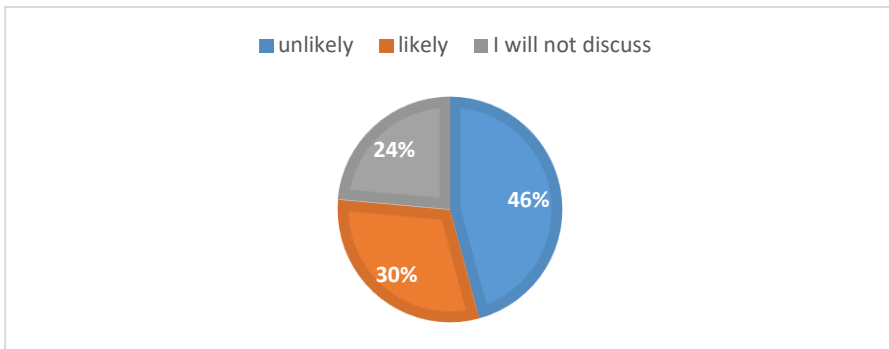


Figure 22: How likely are you to switch from a traditional bank to a digital-only bank in the future?  
Source: Google Forms survey

Although a significant number of consumers use digital services or products, when asked about the likelihood of switching to digital-only banking in the future, the majority indicate that it is unlikely. Furthermore, a substantial proportion—24%—do not

consider switching to a digital bank at all. Only 30% believe they are likely to transition away from traditional banking.

Customer readiness is a critical issue in this context. In Georgia, there is already practical experience with fully digital banks, as demonstrated by Paysera Bank of Georgia, with two additional banks currently in the licensing stage. Consumers in the digital age should theoretically be prepared to embrace innovations such as digital banks. However, the majority of respondents revealed that they do not intend to become customers of such banks.

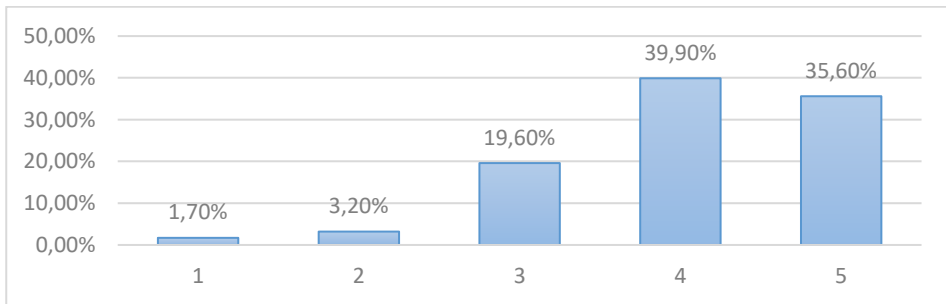


Figure 23: How important is the existence of branches to you in the decision-making process when selecting a bank? (1 means not at all important, 5 means very important).

Source: Google Forms survey

Another significant factor revealed in the survey results is that consumers place considerable importance on the presence of physical branches in their decision-making process. Only 1.7% of respondents consider this issue to be insignificant. As fully digital banks gain relevance due to global trends, it is essential for customers to understand that the transition from traditional banking to digital banking is a normal process and that a bank does not need to have physical branches to provide comprehensive banking services.

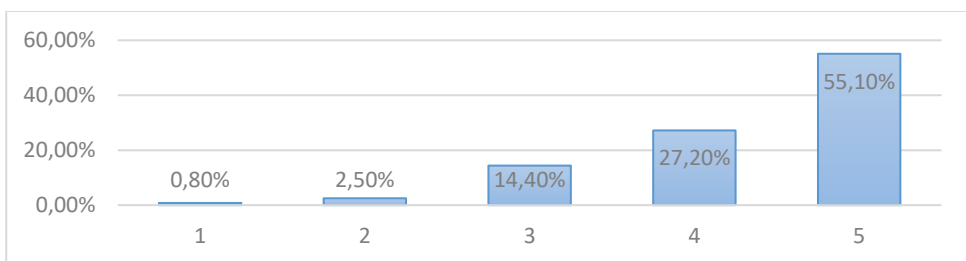


Figure 24: On a scale of 1 to 5, how comfortable are you using digital banking platforms for your needs? (1 being not comfortable at all, 5 being very comfortable).

Source: Google Forms survey

Although the majority of respondents expressed a dislike for the idea of using digital banking in previous questions, when asked about the convenience of digital banking platforms, more than half of the respondents evaluated them positively.

#### 4. Conclusions

The banking sector in Georgia is one of the most developed sectors in the country. Consequently, it is among the first to introduce digital technologies. The digitization of the banking sector is a transformational step that is fundamentally changing the financial landscape. This evolution towards digital platforms and services offers consumers greater convenience, efficiency, and accessibility. Additionally, it allows banks to streamline operations and reduce costs.

In conclusion, while the study highlights significant strides made in the digitization of banking services in Georgia, it is important to acknowledge certain limitations. One such limitation is the partial implementation of digital card products, with only 58% of Georgian banks currently offering these tools. Digital cards are crucial for integrating various digital services, enhancing convenience and security for customers. The limited adoption of digital cards indicates a gap in the digitization process and points to slower progress in providing a comprehensive range of digital services.

Furthermore, only 79% of Georgian banks offer mobile banking services for businesses, highlighting a need for improved digital channels tailored to business customers. The absence of widespread mobile banking options for businesses restricts their operational efficiency and flexibility, underscoring an area that requires attention and improvement.

Addressing these limitations is essential for the banking sector to fully leverage digital transformation and meet the evolving needs of both individual and business customers. Future research should aim to uncover the barriers to the adoption of digital card products and business mobile banking services, and propose strategies to overcome these challenges. This will help create a more inclusive and advanced digital banking ecosystem in Georgia.

In conclusion, it can be stated that:

- In the banking sector, digital transformation promotes cost efficiency, customer growth, expanded markets and access, data analytics, and personalization, while helping banks gain a competitive edge.
- The majority of banks in the Georgian banking sector do not publish digital engagement indicators.

Only two banks in the sector define and publish key performance indicators (KPIs), from which we can conclude that digital engagement is quite high in these banks and that these indicators are increasing every year.

- The findings of the research on the level of digitization within the banking sector indicate that for the majority of banks, achieving complete digitization of services remains a significant challenge. In many cases, physical branch visits are still required for services such as opening accounts, obtaining loans, closing deposits, and others. Furthermore, there is a need for further enhancement of functionalities within mobile and internet banking platforms.
- The results of the customer attitude survey indicate that customers are actively utilizing digital banking channels and express satisfaction with digital banking products and services. However, the survey also revealed a relatively low willingness

among respondents to transition to fully digital banks, as they prefer institutions with physical branches. Moreover, a significant majority of respondents reported encountering technical errors while using digital services, underscoring the necessity for improvements in banking digital channels.

Therefore, it is important to determine the recommendations aimed at the digitization of the banking sector in Georgia. First of all, it is necessary for the management of each commercial bank to implement digital technologies to gain the advantages that come with digitization.

The high level of digitization on a global scale underscores the necessity for banks participating in the Georgian banking system to ensure the implementation of appropriate digital technologies within the local market. It is important to use robots with artificial intelligence, chatbots, and other technologies because successful experience with these technologies already exists in the global market. At the same time, they improve both the efficiency of banks' operations and the customer experience through personalized, fast, convenient, and affordable banking.

Due to the competitive market environment, it is imperative for banks to offer products and services such as remote account opening, chatbots, remote lending processes, and diversified functionalities in mobile/internet banking. Additionally, there is a need to promote services for legal entities through remote channels.

In the highly competitive market environment, where some banks have already digitized the aforementioned services, it is crucial for every bank to adhere to market demands in the modern digital landscape. This includes offering customers a diverse array of remote services to sustain a competitive edge and retain customer loyalty.

Due to digitization trends, it is important to maintain a high level of security. The National Bank of Georgia regulates this issue for all commercial banks. Each bank must follow these regulations and also have a robust internal system that enables them to assess and mitigate potential risks.

Future research will focus on identifying and addressing the barriers and challenges faced by Georgian banks in adopting digital technologies. Future research should delve into the barriers and challenges faced by banks in Georgia when adopting digital technologies. Despite the growing trend toward digitization, several obstacles may impede the seamless integration of these technologies into banking operations. Key areas of investigation should include: Identify and analyze barriers to the adoption of digital technologies in Georgian banks, such as technological infrastructure, staff training, and resistance to change.

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