BIO Web of Conferences **138**, 03029 (2024) https://doi.org/10.1051/bioconf/202413803029
AQUACULTURE 2024

The role of digitalization of the banking sector in sustainable economic development

Asiiat Kipkeeva[1,2*], *Umidjon* Matyakubov[2], *Maksuda* Aminova[3], *Javohir* Babajanov[3], and *Rasulbek* Isakov [3]

[1]North-Caucasian State Academy, Karachay-Cherkess Republic, Cherkessk, 369000, Russia
[2]Mamun University, Khorezm region, Khiva, 220900, Uzbekistan
[3]Urgench State University, Khorezm region, Urgench, 220100, Uzbekistan

Abstract. This article is devoted to the study of the security of international bank transfers between the Republic of Uzbekistan (RU) and the Russian Federation (RF) using mobile applications. The purpose of the study is the problems of ensuring the security of international bank transfers. The implementation of the goal required studying the current legislation on banking secrecy and personal data of Russia and Uzbekistan. The object of the study is the financial system of Russia and Uzbekistan, as well as the provider of electronic payments and transfers ÇPayNetÈ. In the course of the study, comparative analysis methods were used based on the assessment of the regulatory and legal documentation of Uzbekistan and Russia. The study identified problems in ensuring the security of international bank transfers, which include technical imperfections of applications that allow for secure payments and transfers, and insufficient public awareness of the negative consequences of unjust enrichment. Technical imperfections are especially relevant for transactions involving different payment systems and currencies, as well as the complete absence of additional information about the recipient before confirming the information (for example, full name, patronymic and partially hidden information about personal data), which allows minimizing the likelihood of errors when entering a bank card number or mobile phone. The introduction of two-step authentication and entering an additional password will help avoid errors. The study was based on regulatory and legal acts of Russia and Uzbekistan. The study confirmed the importance and relevance of ensuring the security of international bank transfers, and the proposed measures will allow informing about the features of the payment systems, which will minimize the risks of erroneous transactions.

1 Introduction

With the development of digital technologies, an urgent task is to ensure the security of international bank transfers. Internet banking, mobile banking (M-banking) and various mobile applications are actively used to carry out international transfers, allowing for instant transfers and currency conversion at the most favorable rate. These days, banks offer

* Corresponding author: asya-Ki@yandex.ru

many electronic services, namely Internet banking, cardless ATMs, visas, credit cards, and master cards, that allow bank users to perform their duties in both online and offline transactions with less time and effort [1, 2]. M-banking is primarily used by bank customers to interact ubiquitously and instantly with the bank via mobile devices such as smartphones, telephones, and tablets [3-5]. Mobile technologies, in particular, bring new ways to make payments, and they offer banks ways to profitably cut fees, expand geographic reach, and speed up transactions [6].

One of the most common platforms for carrying out various financial transactions in the Republic of Uzbekistan is the online platform ÇPayNetÈ. The main advantages of the platform include:

1. The ability to use the application using a mobile phone with an Internet connection;
2. Simple and convenient registration;
3. Payment for services (mobile communications, utilities, bank loans, payment by QR code including to a bank account, payment for foreign services, etc.) at any time of the day, you only need to add a card to perform transactions and link a mobile phone number;
4. Providing increased cashback up to 100%.
5. Making instant transfers from cards ÇHumoÈ, ÇUzcardÈ, ÇHamkorbankÈ, ÇKapitalbankÈ etc. to cards of other countries without commission with instant currency conversion at the most favorable rate, as well as making fast money transfers from Russia.

A big advantage of the PayNet provider is the availability of terminals that provide a wide range of services for performing banking transactions independently.

However, there are also disadvantages. One of the significant disadvantages is that when transferring funds to another card, the sender may automatically make a mistake in the combination of bank card numbers or mobile phone number, and the PayNet mobile application itself does not allow the sender to check the information about the recipient. For example, when performing a similar operation by bank card number or mobile phone number using Sberbank Online, additional information about the recipient appears in the transaction confirmation window, i.e. his full name and patronymic with the first letter of the last name. This operation allows you to minimize the risks of erroneous transactions.

It should also be noted that there are other payment systems, for example, the payment system ÇGolden CrownÈ. A significant disadvantage of the payment system ÇGolden CrownÈ is that depending on the amount and directions, the commission can be quite significant for individuals.

An increasingly interconnected world render smartphones pivotal towards technological progress [7]. A mobile money system is a financial tool that makes use of mobile phones in sending and or in receiving money from far and wide within real-time. To make this possible, both the receiver and the sender need to have a virtual account on their phone with the respective service providers. One typical feature that makes the service popular is the fact that providers of the service are relatively available on every corner of the street even in geographically remote areas [8, 9].

Mobile banking has provided temporal and spatial freedom to its users, which is often considered as a key limitation of the customary mode of banking. It has also helped banks in cutting down their operational costs and expanding their reach to the customers [10]. It helps its subscribers to access information related to their accounts and do remote transactions in their accounts at a low cost [11, 12].

Cash transfers have become an increasingly important component of social protection policies in both developed and developing countries. The introduction of mobile money systems in many developing countries offers new opportunities for distributing cash transfers [13].

In modern society, the role of international bank transfers is increasing. This phenomenon is associated with the need to carry out transactions from one country to another. Despite the fact that there is currently a competitive struggle for each potential bank client and huge funds are spent to ensure information security, the issues of erroneous transactions continue to be relevant all over the world. The reasons for erroneous transfers are varied: human error, inattention, and digital and financial illiteracy. The latter is the most relevant since they can be classified as financially vulnerable clients (FVC).

FVCs are individuals who are unbanked or underbanked, i.e. they do not have bank accounts or are not making the best use of financial services (Mogaji et al., 2021 a, b, c) [14-16].

Receiving or transferring money is a vital activity in the daily lives of the average Ghanaian. Money transfer also needs a reliable, effective and affordable mobile transfer service that sees to it that money deposited in one location can be withdrawn in another location [17].

On average, Russians lose 78 billion rubles a year due to not knowing how to dispute poor-quality purchases or erroneous transfers. These figures are also confirmed by the Association of Russian Banks (ARB).

Not all banks in the Republic of Uzbekistan have mobile applications that allow international money transfers between accounts with currency conversion. In this regard, they use the PayNet mobile application, which makes their lives much easier. When making incorrect transfers between countries, the first thing bank clients do is contact the bank branch where they were issued the card. When contacting the bank about an incorrect transfer, in most cases they receive the following response from bank employees: Ç...you transferred funds from card to card yourself and used a third-party application that has nothing to do with the relevant bankÈ. The next step for those who made an erroneous transfer is to contact the hotline via ÇTelegram-bot 24/7È. Then they try to solve the problem by calling the hotline. In most cases, foreign clients who hold cards in the Republic of Uzbekistan receive some kind of advice to contact the courts.

An individual who made a mistake when transferring funds has no way to contact the recipient of funds, since banks refuse to provide information about the recipient. This information is considered personal data and, accordingly, is a banking secret in accordance with the Law of the Republic of Uzbekistan dated 02.07.2019 No. LRU-547 ÇOn Personal DataÈ and in accordance with the Federal Law of the Russian Federation ÇOn Personal DataÈ dated 27.07.2006 No. 152-FL. Information about personal data, about bank clients' accounts, as well as transactions and receipts are a banking secret and are protected by the Law of the Republic of Uzbekistan dated 30.08.2003 No. 530-II ÇOn banking secrecyÈ and the Federal Law of the Russian Federation dated 02.12.1990 No. 395-1 (as amended) ÇOn banking activitiesÈ Article 26. Thus, an individual who made a mistake when transferring funds has the following information about the recipient: bank card number, first name, patronymic, first letter of the last name, as well as the number, date, time and exact amount of the transaction. This information is not enough to contact the recipient of funds. In most cases, an attempt to contact the recipient of funds by sending a message with a request to return the mistakenly transferred money, indicating the phone number linked to the card through Sberbank Online by making a “symbolic” transfer of money also does not give positive results.

The Law ÇOn Personal DataÈ of Russia and Uzbekistan have their own distinctive features, reflected in the methods of protecting information. For example, in Russia, control over compliance with the law is carried out by Roskomnadzor, in Uzbekistan, control is carried out by the State Center for Personalization under the Cabinet of Ministers of the Republic of Uzbekistan. Unlike Russia, in Uzbekistan, operators are required to register in the state register. The next distinctive feature is that the Russian Federation provides for both administrative and criminal liability for disclosure of personal data. While in the

Republic of Uzbekistan, the main emphasis is on administrative penalties in the form of fines.

Let us consider the features of the legislation ÇOn banking secrecyÈ in Russia and Uzbekistan.

Firstly, in Uzbekistan, banking secrecy is regulated by the Law of the Republic of Uzbekistan dated 30.08.2003 No. 530-II ÇOn banking secrecyÈ, while in Russia it is regulated by the Federal Law of the Russian Federation dated 02.12.1990 No. 395-1 (in the latest edition) ÇOn banking activitiesÈ.

Secondly, in Russia and Uzbekistan, banking secrecy includes information about clients' accounts, financial transactions, deposits, etc.

Thirdly, banks are responsible for ensuring the protection of information and taking organizational and technical measures to prevent data leakage.

Fourthly, in both countries there are certain circumstances when bank employees can provide information without the consent of clients. Such cases include official requests from law enforcement, judicial authorities and the tax service. It should also be noted that the list of information provided may differ significantly.

Fifthly, Russia and Uzbekistan have defined penalties for violating the law in cases not provided for by current legislation. Both countries have both administrative and criminal penalties, depending on the severity of the criminal act.

In Uzbekistan, banking secrecy is also regulated by the Law of the Republic of Uzbekistan ÇOn banks and banking activitiesÈ No. LRU-580 dated 05.11.2019.

Thus, the following conclusion can be made. In both countries, strict measures have been taken to ensure the protection of data on bank clients and the liability of all persons involved in the leakage of information, including imprisonment.

Citizens' appeals to the prosecutor's office also do not yield positive results. Individuals receive a response to their appeals that they must contact the bank with a written application for the search and return of the payment, and only after the bank provides a written refusal will they have grounds for initiating a case. The prosecutor's office justifies its actions by the fact that there is no corpus delicti. When individuals who have made an incorrect transfer try to appeal, the bank refuses to accept the application, but does not give a written reasoned refusal, but suggests that they contact the hotline.

Having tried all the methods, individuals who made an incorrect transfer take the next step - contacting the hotline of the Russian bank of which the recipient of the payment is a client. With the development of digitalization, you can find out which bank the recipient of funds is a client of by following the following link https://finanso.com/ru/bin-search/, dialing the first six digits of the recipient's card.

All bank cards have a unique number. A unique combination of digits is assigned according to the ÇMoonÈ algorithm, i.e. the bank card check digit, according to the international standard ISO/IEC 7812. The bank card check digit is the last digit, which is assigned to verify the authenticity of the entire bank card number. Also, the last digit of the bank card helps prevent accidental errors when entering.

In essence, the first six digits of a bank card are the bank identification number (BIN), which allows you to find out which bank issued the card. As a rule, the BIN consists of six digits and means:

1. The first digit is the payment system, for example, for Visa cards it is 4, for MasterCard it is 5;
2. From the second to the fourth – bank number;
3. The fifth and sixth digits are an additional identifier that depends on the bank's product.

The BIN format is regulated by the international standard ISO/IEC 7812-1.

In this case, the bank asks to provide the following information: transaction number and date and the exact amount of the transfer. After some time, the individual receives a notification from the bank that in order to search for the payment, it is necessary to provide the correct ARN (23 characters) / RNN (12 characters) transaction codes, SUIP (12 digits and 4 letters) or the transaction number in the billing system (12 digits). The question arises, how can an individual obtain this information?

It is possible to contact the PayNet application hotline from Russia, but the cost of communication services in roaming is very high.

When trying to contact PayNet operators by email, individuals who have made an incorrect transfer receive the following response: Ç...the recipient's mailbox is full and cannot receive messages at the moment. Try resending this message later or contact the recipient directlyÈ. Thus, it is not possible for individuals to obtain the information that Sberbank asks to provide to find an incorrect transfer.

The methods for returning disputed bank transfers in Uzbekistan and Russia are identical. You must immediately contact the bank or service provider through which the erroneous money transfer was made with a request for a refund.

2 Purpose of the study

Purpose of the study – problems of ensuring the security of international bank transfers.problems of ensuring the security of international bank transfers.

3 Materials and research methods

In the process of the research, methods of analysis were used with the application of the assessment of legislative acts of the Russian Federation and the Republic of Uzbekistan. The materials of the research were normative and legal acts of Russia and Uzbekistan.

4 Research results and their discussion

The problems of ensuring the security of money transfers from card to card are relevant all over the world. In order to ensure the security of transfers by bank card number or mobile phone number, considerable efforts are made, but no one is immune from errors when entering the digits of the bank card number / mobile phone number. And in this case, the problem of returning erroneous transfers arises.

In case of refusal to voluntarily return the mistakenly transferred funds, they can be recovered by contacting the police with a statement on the initiation of a criminal case against an unidentified person for the fact of appropriation of someone else's property in accordance with Article 1102 of the Civil Code of the Russian Federation (CC RF), part two ÇObligation to return unjust enrichmentÈ. The statement must also indicate the card number and the amount to which the money was mistakenly transferred. It is the police who can establish the identity of the person who received the mistaken money transfer. Also, the police are responsible in this case not only for establishing the identity and place of residence and work, but also for obtaining a written explanation. The recipient of the mistaken money transfer can refuse to return the funds if he proves that the money was transferred to his account not by mistake, but, for example, as part of a completed transaction or as a gift. In the absence of supporting documents of the transaction or another document, then unjust enrichment occurs.

According to Article 144 of the Criminal Procedure Code of the Russian Federation, the inquiry bodies and investigators are required to verify the information within their competence and make a decision on it no later than 3 days from the date of receipt of the application. According to official data from law enforcement and judicial bodies, in 99% of cases such cases are resolved with the forced return of funds to the plaintiff.

After the identification of the identity by the police, individuals who made an erroneous transfer of funds must file a claim in court. If the transfer amount is less than 50,000 rubles, a claim for recovery of unjust enrichment is filed with a justice of the peace, and if the amount is more than 50,000 rubles, the same application is filed with a regional court.

An analysis of the dynamics of the total volume and number of transactions without the consent of clients of Russian banks is presented in Figure 1.

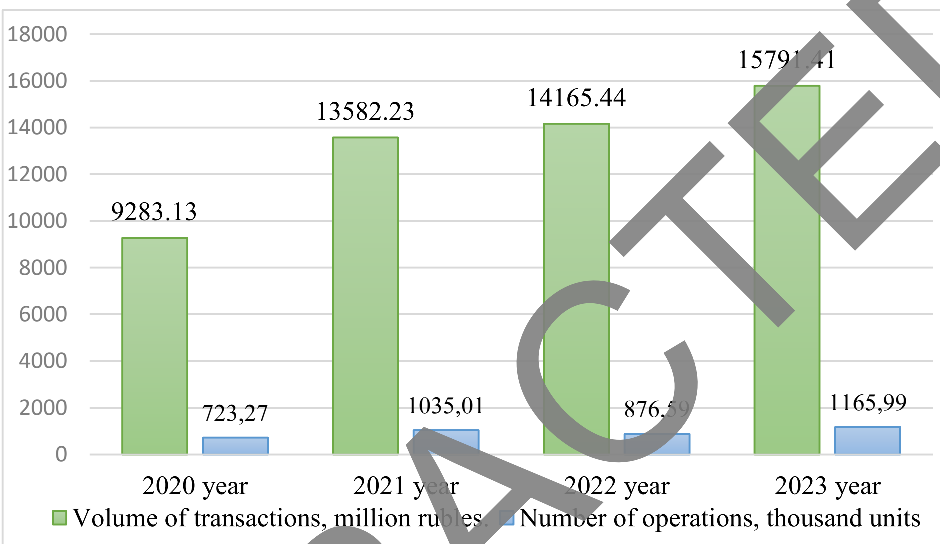

Fig. 1. Analysis of the dynamics of the total volume and number of transactions without the consent of clients in Russia for 2020-2023 (Made by the authors according on the basis https://cbr.ru/analytics/ib/operations_survey/2023/).

Without acceptance, funds can be written off (without the consent of clients) – funds can be written off by a bank by a court decision and in cases stipulated by current legislation.

Based on the presented data, the write-off of funds without the consent of clients over the period under review tends to increase by 70%. Over the analyzed period, the number of transactions also tends to increase by 33%. Over 2022-2023, the volume of transactions without the consent of clients increased by 11.48%. This phenomenon can be explained by the growth of money transfers using bank cards (+10.54% or up to 136.38 trillion rubles).

According to official data from the Central Bank of the Russian Federation, in 2023, the volume of transactions without customer consent in the total volume of money transfer transactions amounted to 0.00119%, and in 2022 - 0.00097%.

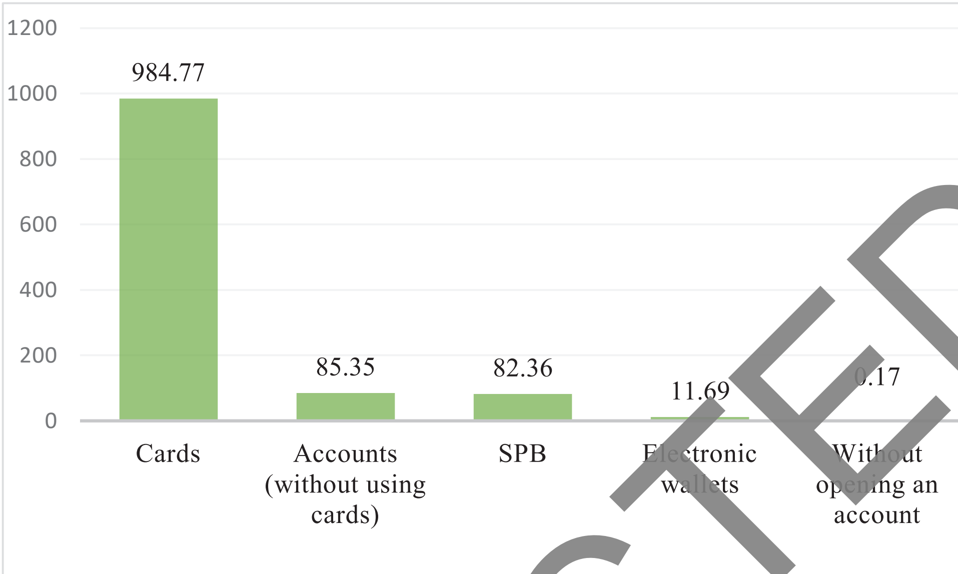

Fig. 2. Number of transactions without the consent of individual clients in 2023 (Made by the authors according on the basis https://cbr.ru/analytics/ib/operations_survey/2023/).

According to official data from the Central Bank of Russia for 2023, the largest volume of thefts was committed using bank cards, which amounted to 984.77 million rubles (Figure 2).

In 2023, the largest volume of thefts of funds was carried out using bank cards and amounted to 7120.37 million rubles. The largest share of reimbursed funds for this period is typical for transactions using bank accounts - 666.77 million rubles. Since the beginning of 2023, Russian credit institutions have been sending information on prevented thefts of funds. The volume of prevented banking transactions without the consent of clients amounted to 5798.35 billion rubles. This was facilitated by the active work of anti-fraud procedures (prohibition of suspicious banking transactions) of credit institutions.

5 Conclusions

The conducted research showed that due to the sanctions pressure on Russia, there are currently a number of restrictions on international money transfers. The restrictions include the fact that many foreign countries limit international cooperation with Russian financial organizations.

The next pressing issue is the technical shortcomings associated with mobile applications used by the population to make international bank transfers.

No less pressing is the lack of awareness among users about the possible risks of unjust enrichment.

To solve the above problems it is necessary:

Firstly, to strengthen international cooperation in the exchange of operational information between the Russian Federation and the Republic of Uzbekistan. This will help solve problems with incorrect (erroneous) transfers of funds, especially with bank card transfers;

secondly, to improve the financial literacy of the population, which includes providing bank clients and users of mobile applications with comprehensive information about the capabilities of mobile applications and the risks of illegal enrichment;

thirdly, inclusion in mobile applications of additional information about the sender, namely the full last name and patronymic and the first letter of the last name of the recipient of money transfers;

fourthly, the introduction of additional parameters for confirming transactions, for example, two-step authentication in order to eliminate errors when entering a bank account number, mobile phone number or bank card number in order to eliminate the risk of incorrect money transfers;

fifthly, information about the rules and consequences in the event of unjust enrichment of recipients of Çrandom moneyÈ;

sixth, to develop cooperation in the fight against unjust enrichment between foreign countries and the Russian Federation.

It is also necessary to strengthen the legal framework of the Republic of Uzbekistan, providing for the introduction of clear and unambiguous rules on unjust enrichment. These measures provide for the specification and clarification of the legislative norms of Uzbekistan in relation to:

1. Definitions of such concepts as Çunjust enrichmentÈ, Çenriched partyÈ and ÇvictimÈ;
2. Clarification of the grounds for the return of received property (money) without having legal grounds for doing so;
3. Establishing a limitation period for the claim for the return of unjust enrichment.

For both states, the simplification of procedures for considering and conducting cases on unjust enrichment and strengthening the protection of victims, including not only compensation for damages, but also interest for the use of someone else's property, is of a recommendatory nature. The practical implementation of these measures will allow the formation of an effective legal basis regulating the regulation of issues Çon unjust enrichmentÈ and will significantly simplify the procedure for the return of funds, as well as strengthen the protection of the rights of victims.

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