

# Analysis Of The Practice Of Using Remote Banking Services In The Banking System Of Uzbekistan

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## Abstract

this article is currently looking at measures to establish control in commercial banks and establish digital banks, and to change the activities of existing banking departments, that is, to improve in accordance with the principles of international rating assessment. The establishment of remote services using innovative banking technologies in local commercial banks is one of the pressing issues of today. Accordingly, the stage of digitization of services provided by commercial banks and the establishment of digital banks, full automation of commercial banking services and the creation of self-management systems for banking customers is rapidly underway. In particular, today, commercial banks of all developed countries have established a large number of customer services not by increasing the number of branches from banks as a result of the development of the digital economy, but by developing remote banking services. In the process of transformation of banks in Uzbekistan, the presence of remote banking services based on mobile, internet and other banking technologies, their level of security, minimization of risks, ease of use, importance of use, population awareness of these services, utility of services and solutions of other similar problems were considered and analyzed.

**Keywords:** remote banking, internet banking, Mobile banking, Banking-Client, Innovative Banking Technologies, Electronic Digital Signature (EDS).

## INTRODUCTION

Currently, the era of innovative technologies requires the effective organization of business processes in commercial banks, the creation of digital banks, and the reduction of banking costs by changing and adapting the activities of existing bank branches to remote services. In this case, all banking services provided by digital banks are fully automated and self-management systems for bank customers are created. In particular, today, all operations are carried out much faster through modern technologies, and as a result of the development of the digital economy, banks are required not to increase the number of branches, but to attract and serve many customers through the development of remote banking services.

In Uzbekistan, in order to improve banking systems in accordance with the requirements of Basel III and using mobile, Internet and other innovative technologies

in banking activities, ways are being used to provide banking services remotely and to minimize their security level and expected risks. Due to the convenience of using remote banking services for commercial bank customers and the importance of using the system for both (the bank and the customer), the awareness and usefulness of customers of these services, the services are analyzed econometrically based on a conceptual model [1].

Today, the concept of Internet banking in the banking system of Uzbekistan and the "Bank-Client" program are convenient and useful for legal entities, but in recent years, individuals have also been able to use the convenience provided by commercial banks, namely mobile banking. Today, bank customers prefer Internet banking to the "Bank-Client" program. The main reason for this is that the "Bank-Client" program is designed for use on a computer, and after installing this program on the computer, it is possible to use it directly from

this computer. This does not ensure the use of the program at any time and anywhere. The fact that bank customers, that is, users, cannot use this program anywhere has caused a number of inconveniences, which slows down the popularization of the “Bank-Client” program. Nevertheless, in many commercial banks, the “Bank-Client” program is considered the same type of service as Internet banking. This is the main reason why it is also recorded as a “Bank-Client” (“Internet banking”) software complex in the contract concluded between the bank and the client [2].

“Bank-Client” program The “Internet banking” software complex is an automated interaction between the bank and the client, which creates the following opportunities for bank clients:

- saves time and money due to the client not having to visit the bank every day;
- the proximity of the bank address does not matter for the client;
- individuals and legal entities who are bank clients use banking services at home, in the office or in other places using personal computers connected to the Internet;
- there will be an opportunity to expand the range of services provided to the client in the operational and information sphere;
- increases the productivity of bank employees serving clients;
- serves to ensure high-speed, high-quality and online implementation of operations.

## METHODOLOGY

If we talk about the Internet banking software complex, we will analyze it as follows. First, let's look at the process of using this program: it is based on the exchange of information between the bank and the client via a communication network. To exchange information in the client banking system, a “Personal Cabinet” is created for clients in the bank. To ensure security, authorization is required, that is, access is provided via a password and login. Processing of client requests, receiving and transmitting data is carried out automatically.

For the full functioning of this system, the client's computer operating system must be newer or have a Web browser of at least Internet Explorer 6.0 or higher. The client working on the system must have knowledge and skills at the level of using the Windows operating system and Internet Explorer Web browsers.

The client and the bank exchange information through communication channels at the time agreed upon in the contract. Before starting a new day of operation in commercial banks, the client must check the movement and balance of funds in deposit accounts by comparing them with the balance of the previous day. If the funds in the accounts match the balances, the client is allowed to start a new day of operation and enter documents. Otherwise, the reasons for the difference between them are determined and this situation is mutually coordinated between the client and the bank. When settlements are made through this system, the client transfers funds from his account, mainly in the form of a payment order.

Transfers made by bank clients through communication channels in the bank, that is, settlement documents made with electronic money, are issued in two copies after the payments are made:

- one copy is placed in the daily collection of documents of the bank in the general order;
- the second copy is left at the bank until the original copies of the settlement documents are received for comparison.

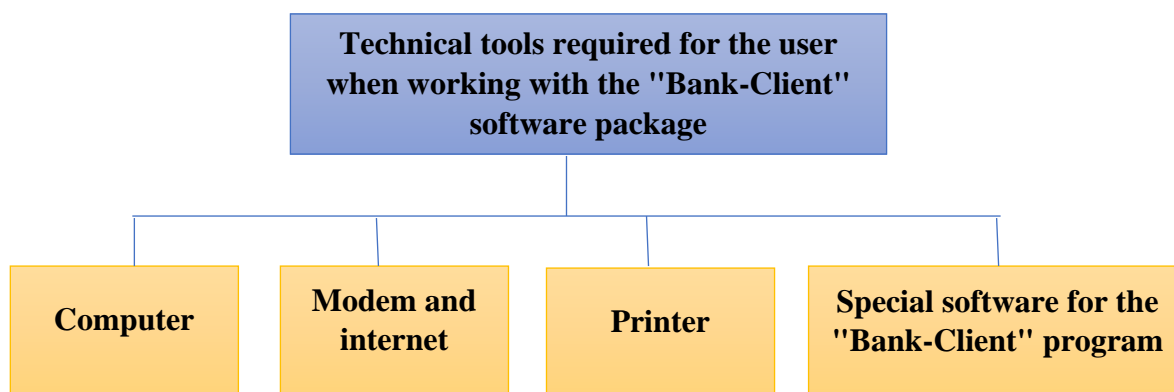
The “Internet banking” software complex is the personal property of each commercial bank. This program is allowed by the bank to be used only by clients who have concluded an agreement with the bank and they are considered users of the banking program. To perform banking operations through the Internet banking software complex, the client must be provided with technical means.

In order for users of the Bank-Client program to connect to the software complex, clients are required to have:

- a computer;

- a modem and the Internet;
- a printer;
- appropriate software, that is, a special program installed by the bank for the "Bank-Client" program (Figure 1).

accounts through the system. For security reasons, to change the password for using the system, the client selects the "Change password" button from the system menu.



**Figure 1: Special software for the "Bank-Client" program, i.e. "Internet-Banking"**

In commercial banks, remote servicing of client accounts is carried out in accordance with the agreement concluded between the system users, that is, the client and the bank. In order for the client to perform banking operations using remote banking services, the payer (client) must provide the bank with accurate identification data (the payer's personal accounts, phone number, etc.).

The user enters a login and password to enter the bank-client system. Then he is authenticated with an electronic digital signature (EDS) and enters the system. Through the system, the client performs his operations using an electronic digital signature. An electronic payment document certified by an electronic digital signature is equated to the original copy of the monetary settlement document (i.e., paper form) and has the same legal force as it.

If a bank client loses the private key of the electronic digital signature or suspects that the identification and authentication data has been disclosed to others, the client (user) must immediately notify the bank about the termination of the service through the system. According to the bank-client agreement, the client is responsible for the transactions made from the client's

Then the login and passwords, as well as the new changed password, are entered. After all the parameters are entered, the [Save] button is pressed to save the changes in the database.

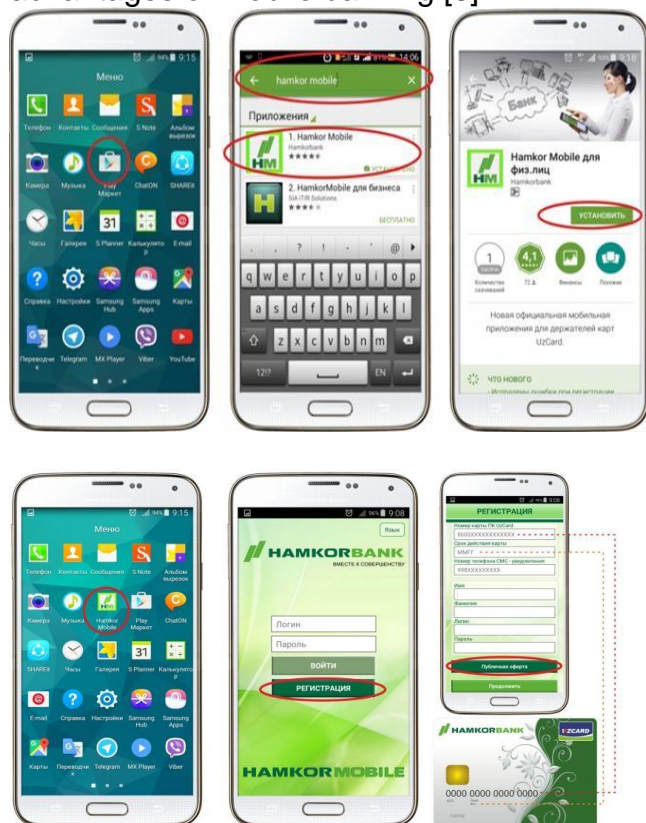
#### RESULT

Internet banking technology creates a number of conveniences and eases for both the bank and its clients. That is, the client does not need to go to the bank to perform banking operations on his account, but rather has the opportunity to do so from anywhere and at any time via the Internet, and can receive information about the status of his bank account, the movement of funds, and the reflection of payments via the remote Internet. This provides the client with conveniences such as saving his time and financial resources, choosing the bank according to his wishes regardless of the distance or proximity of the address, and managing his funds quickly [3].

Currently, compared to other remote banking services under the Bank-Client program, mobile banking is more convenient to use, and individuals who need cash have the opportunity to make all payments in everyday life with this service [4]. A mobile phone is considered the most convenient for users. It is much more convenient to make payments online



through a mobile device than with cash, and it is safer to store electronic money. As a result, the widespread introduction of mobile banking in the payment system will reduce the cash supply and inflation rate. In this regard, it is worth highlighting the convenience, speed, efficiency, and universality of the system as the main advantages of mobile banking [5].



**Figure 2 Sequence of installing the Mobile Banking application**

The role of our smartphones in our daily lives is increasing. Managing our entire business activities, personal lives, and bank money through a single smartphone is the greatest convenience of the 21st century. In addition, customers do not need to use new systems or technologies to make payments. It is enough to simply download mobile applications. In this case, it is not required to provide customers of commercial banks with a separate payment instrument. Commercial banks are characterized only by:

- creating clear advantages over currently available options;

- ensuring the security of the new system based on a clear understanding of the risks associated with them.

To launch the mobile banking service, first of all, the client activates the Internet service on his smartphone and searches for the name of mobile banking in the smartphone's "Play Market" (if it is an Android smartphone) or "App Store" (if it is an Apple smartphone). Each commercial bank's program is searched for by its mobile application name and, after being found, it is installed on the phone (then the mobile banking application appears on the phone). Usually, commercial banks give their mobile banking program a special name; For example, the mobile banking program of "AloqaBank" JSC is called "Zoomrad".

Internet banking was one of the **first** in the banking system of Uzbekistan to be implemented by AITB "Ipak Yo'li" on March 1, 2007. That is, by logging into the "Ipak Yo'li online" system, customers were able to perform several types of banking operations on their deposit accounts. Initially, this service was used only by customers with the status of legal entities, but later these services were also introduced for individuals.

**Second**, as a bank that offered Internet banking services to its customers, JSC "Invest Finance Bank" began to show its activity in the financial market. This, of course, created a number of conveniences for the customers of this bank.

**Thirdly**, "Trustbank" JSC launched the use of this type of service, which was the first bank in Uzbekistan to hold presentations to bank customers in order to popularize the use of Internet banking services and was the only bank to launch such an interactive service as receiving online answers to their customers' questions.

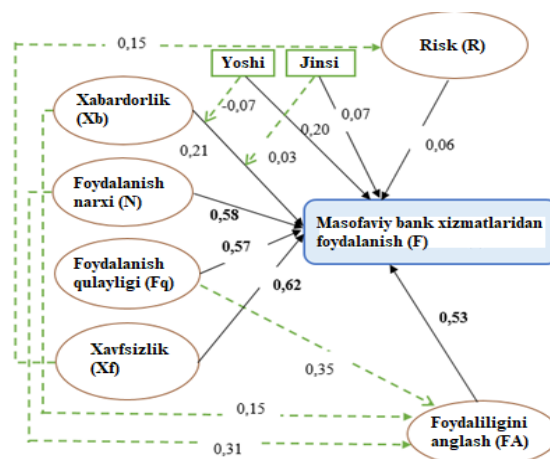
**Then**, "KDB Bank Uzbekistan" JSC offered its customers a new service and posted it on its website, and a little later, the People's Bank of the Republic of Uzbekistan JSC also offered its customers remote banking services. This indicated that the need for

such services among customers was growing during this period.

Later, remote banking services developed rapidly in the banking system of Uzbekistan. Determining the influence of factors influencing the use of remote banking services in Uzbekistan

To determine the influence of factors influencing the use of remote banking services in Uzbekistan, it is appropriate to use the method of linear multivariate econometric modeling. Such factors are of great importance in studying the impact of such factors on the efficiency of banking services.

A number of factors were selected as factors participating in the multivariate econometric model based on the questionnaire questions conducted among respondents. The use of remote banking services as the resulting factor was designated as (F), in the model as (Y). The following factors were considered as influencing factors: the influence of people close to me on my use of remote banking services (Xb1), the influence of advertising and information on bank websites on my use of remote banking services (Xb2), the level of convenience in using remote banking services (FQ), the occurrence of fraud in remote service systems (Xf1), the level of security of personal data in remote service systems (Xf2), the importance of remote banking services in saving time in everyday life (FA1), the importance of remote banking services in saving costs (FA2), the importance of price in using remote banking services (N1), the importance of internet speed in implementing remote banking services (N2), the level of risk in implementing banking transactions through remote banking services (R1), the level of fear of losing the list of PIN codes and falling into the wrong hands (R2), and the gender and age of the respondent.



**Figure 3: Conceptual model of “determinant factor” hypotheses influencing the use of remote banking services and the results obtained**

**Table 1. Descriptive statistics between factors**

	Y	FQ (X1)	Xf2 (X2)	FA2 (X3)	N2 (X4)
Mean	1,255738	1,337705	1,213115	1,465574	1,298361
Median	1,000000	1,000000	1,000000	1,000000	1,000000
Maximum	2,000000	2,000000	2,000000	2,000000	2,000000
Minimum	0,000000	0,000000	0,000000	0,000000	0,000000
Std. Dev.	0,664050	0,730484	0,690984	0,663643	0,702086
Skewness	-0,336983	-0,617829	-0,307115	-0,854312	-0,487726
Kurtosis	2,218791	2,095204	2,099629	2,597637	2,114636
Jarque-Bera	13,52823	29,80748	15,09681	39,15810	22,05376
Probability	0,001154	0,000000	0,000527	0,000000	0,000016
Sum	383,0000	408,0000	370,0000	447,0000	396,0000
Sum Sq. Dev.	134,0525	162,2164	145,1475	133,8885	149,8492
Observations	305	305	305	305	305

The results are presented in Table 1, where the data show the mean, median, maximum and minimum values of each factor. Std. Dev. (Standard Deviation) - the standard deviation coefficient shows how much each variable deviates from the mean.

## CONCLUSION

The well-established settlement mechanism in the economy and its accurate functioning are the main foundations of development in all countries. The economic power of any state cannot be imagined without a highly efficient monetary system and modern payment mechanisms. At the same time, the state is constantly interested in the implementation of any payments through banks, that is, expanding the

system of non-cash settlements, in particular, payments through remote banking services.

The importance of modern information technologies in the introduction of new banking products and services is increasing in the Uzbek banking market. As market economy relations develop in Uzbekistan, commercial banks are also diversifying their service activities by increasing the types of remote banking services and the types of services they provide to customers through them.

Currently, the use of remote banking services in the activities of commercial banks of the Republic of Uzbekistan is increasing year by year. In particular, the number of users of AT Xalq Bank, JSCB "Agrobank" and TIF National Bank is 5474994, which is more than 68 percent of the total number of users. The low number of users of remote banking services of "Hi-Tech Bank" JSCB, "ZIRAAT BANK" JSC, "Turkiston" JSCB, "Ravnaqbank" JSCB, "Madad Invest Bank" JSCB, "Uzagroexportbank" JSCB and Iranian "Soderot" Bank can be explained by the small number of their branches and clients. External self-service devices (ATMs, infokiosks and terminals) for bank customers are becoming increasingly important in the implementation of remote banking services.

In general, the introduction of modern information technologies, new banking products and services is creating conditions for the expansion of the banking services market in the banking system of Uzbekistan. As market economy relations develop in Uzbekistan, commercial banks are also diversifying their activities by expanding retail operations and the types of services provided to customers. The introduction of each new information technology opportunity and innovative ideas related to the payment system into the banking system is leading to the emergence of new services in banks.

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