

VIRTUAL BANKING PERFORMANCE AT THE PROCESS OF IOT

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Abstract. Modern banks are providing appropriate contextualized service and advice enriching the interaction between clients. Biometrics – voice or touch – can simplify account access in these new “anywhere” digital channels. This will eliminate barriers associated with in-person, paper-based transactions and enable clients to conduct business even when they cannot be physically available in bank. Current article argues theoretical approaches on virtual bank facilities and its advantage at the age of IoT. Aim of this paper work can be defined as a modern tendency in providing reforms and using world experiences in this sector.

Keywords. Commercial banks, customer-oriented services, internet of things (IoT), digital economy

Introduction

At a time when large foreign banks and almost all large Uzbekistan banks do not have their own virtual web-representation, but also give the client the opportunity to manage their own position. This service is called multipurpose - Online banking, e-banking, Internet banking - and has two basic forms: passive information and active management. In the first case, the client needs information here or in the bank accounts, but they cannot manage it. Active management, in essence, means perfecting operations in real-time mode.

Basic internet banking - the possibility of round-the-clock operations, as well as operational introduction of funds through plastic cards, which were not important in our time of economic instability [1]. In addition, the fastest implementation of the full range of automated, standard operations, economies of time and legal issues, with which beneficiaries address everything in the call-center bank. Traditional internet-banking systems are very convenient and for tracking operations with bank cards (full history of payment with current activations, list of planned transactions, information on trading points and ATMs, with the following products) which is able to increase the degree of control with the client. Therefore, remote sensing technologies record terrestrial constraints - allowing complete operations with a free computer and at a point of rest, where there is access to the Internet [2].

Modern internet banking systems for frequent users, in principle, represent themselves a "thin client": for filling large operations with only one user is quite a regular web browser. Objectively, it is convenient - to manage your own as soon as possible with a free personal computer or communicator, which is locked to the Internet.

Transaction operations, completed in the regime of remote access to the account, are usually divided into a base portion (where it is possible to settle for practical silence in all banks) and expand (depending on the individual, the final payment depends on the individual. In general, the participants of the chain, who radically innovate in the functionality of virtual banks, agree to agree on the best Western approach [3]. Therefore, a large number of clients' functions have been proposed, and electronic electronic offices have been offered as collateral banks, which are also available in Uzbekistan financial institutions.

There are a lot of trained individuals with information services in online mode, as well as regular payments, translations (payment of all connections, utility services, payment of loans, filling in subscriptions, etc.) and conversion operations. In the present time, Internet banking cannot be read in full without a block of active operations, as soon as the user allows the payment to be multiplied.

To place a standard prepaid service, you usually log in to write a letter after I receive various details (usually with SMS-informing my client, interesting service informing you electronically) per credit, amount and terms of extraordinary payment by credit, letter of credit), conversion currency, payments to the organization (in terms of credit and services related to the regime in real time) and the user's in this system.

Methods

In this article author used descriptive analysis based on ground theory with various point of views. As for the data collected secondary source in qualitative forms. Main outcomes distributed in forms of graph and figures.

Results

The spread of terminal express-payments is currently relevant for holiday clients, especially for tech customers, who need to repay a loan, half in the bank. Between today and today, the entire terminal set for its last use in a virtual bank has a shortage. We understand that this operation, as a rule, is not free for the client, the basic payment services of the virtual bank are already represented in the express-payment terminal and it is considered that the payment in the case of the virtual account is not available at all. accuracy of operating terminal today.

Many users have heard about internet banking, some even use such services as remote control of their finances. Possibility to provide an overview of the current means of circling circles is available to the user, in which special technical knowledge is absent. The choice of financial-credit facilities for sub-locking in a virtual banking system is not a simple task, as it is said: there is a participation of a multitude of factors - from the block of available operations, to the completion of the completion. Unfortunately, the ideal system, where it is possible to perform virtually, although not so much, but at the Uzbekistan level it is possible to find systems that allow the use of operational products in operations without possessing conditions that are not fully realized, with excellent results. financial crisis. However, access to the bank, which the branch will be available to all, is not far off at all - it is desirable to turn to the hopeful development, with the development of functional virtual systems and serial means of safety. Our material will give a grammatical increase in the value of a good internet-bank, and in addition, it will be useful and have a useful analog system for itratings functioned its own virtual bank.



Figure 1. Assumptions on Virtual banking services

Our generation was one of the generations who went out to play and have fun in their childhood. Similarly, traditional banks have a high speed access infrastructure and offer services that can be availed at the bank. But that is not the case with virtual banks. These banks offer several banking services in a non-physical,

online infrastructure. These services are the same as traditional banking services, the only difference being, utilization of online channels, and reduction in hassles involved with visiting a physical bank and getting things done. The speed of the processes is also more than those of traditional banks. According to Live Bank, The speed and convenience of virtual banking positively influences overall customer satisfaction, which regularly exceeds 90%, improving the image of the whole brand.

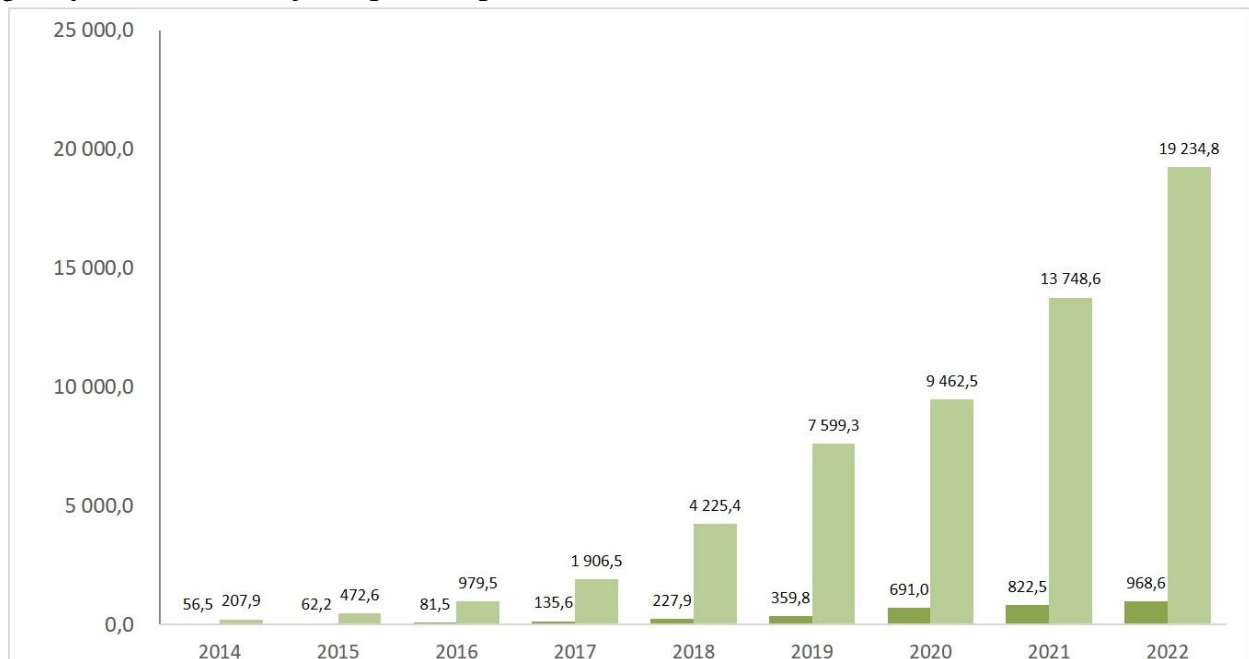


Figure 2. Number of users in distance banking services in Uzbekistan [5]

In turn, for enterprises and organizations through the remote management of bank accounts in real time to the bank servicing the funds in bank accounts and making payments, the application for the purchase (conversion) of foreign currency in electronic form There are opportunities to transfer, transfer an electronic account to the bank and use other services for the transfer of monthly salaries and equivalent payments.

During the period of virtual virtual banking operations, for example, 30 financial-credit facilities are actively operating [6]. The main reason for the Internet-banking - the possibility of round-the-clock work, as well as the operational introduction of funds through the plastic card, which is not important in our time economic instability In addition, the fastest implementation of the full range of automated, standard operations, economies of time and legal issues, with which beneficiaries address everything in the call-center bank.

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Figure 3. Virtual banking service road map [7]

Modern internet banking systems for frequent users, in principle, represent themselves a "thin client": for filling large operations with only one user is quite a regular web browser. Objectively, it is convenient - to manage your own as soon as possible with a free personal computer or communicator, which is locked to the Internet. When choosing an internet banking system, this architecture often becomes more and more cumbersome - in its rather simple space, the data is transmitted between the user computer and the bank server encrypted with the help of SSL.

Key trends in virtual banking:

- Optimization of remote work of bank employees
- Growth of online operations
- Simplification of access to banking services
- Development of distance sales channels
- Fight against scammers and hackers
- Broad reconciliation of artificial intelligence technologies
- Transition to data-driven governance
- Total personification programs
- Import substitution
- Ecosystem development
- Development of own software
- Growing demand for IT professionals

Variation of this feature can be a plugin for a specific version of the web browser (Explorer, Opera or FireFox), the creation of an additional link to the Internet Bank additional tools in the browser, if you want to use it. Finally, in the Internet cafe install such PO inconvenient and perfect useless, but for the constant use of a home computer or mobile PC that can be convenient.

The insufficient development of Internet banking in our country is associated with such problems, such as: the lack of historical culture and traditions among citizens to have Bank account; the insufficiency of the majority of the population of free cash funds; weak development of cashless payments in the trading network.

Table 1. Relevance of Virtual banking services [8]

	Pros	Cons
Traditional banks	<ul style="list-style-type: none"> • Offers full range of banking services • More relationship development with the banks • Confidence/corporate image • Companies incorporated outside of Hong Kong may open an account • Branch access 	<ul style="list-style-type: none"> • Requires physical interview at a bank branch • Less tentative to entrepreneurs, SMEs and registered sole proprietors
Virtual banks	<ul style="list-style-type: none"> • Everything can be done online • Offers wide range of banking services • No physical interview required • Quick and simple bank account opening process • SME-focused • Better rates and fewer fees 	<ul style="list-style-type: none"> • Currently, not all virtual banks provide business bank accounts • Currently, not all banking services are available • Only for Hong Kong incorporated companies • No branch access • Deposit inflexibility
Fintech providers	<ul style="list-style-type: none"> • Everything can be done online • An alternative banking solution for entrepreneurs, SMEs and registered sole proprietors • No physical interview required • Quick and simple account opening process • Companies incorporated outside of Hong Kong may open an account 	<ul style="list-style-type: none"> • Not dealing with the banks directly • Less relationship with the banks • The risk that the banks may close the accounts • Provides only limited banking services • No branch access • Online transactions only • Restriction applies to various nationalities

To date, the user interface interface is usually realized: screen and printed forms of documents, checking the correctness of filling in documents (as a control over the place - for example, clear number in the bank account, for example, for the bank, but for the bank) protocol for secured interoperability with server bank, data encryption, mutual authentication, generation of cryptocurrencies, mechanism CP client under financial documents, exchange financial documents with automated documents. In general, one of the basic indicators of Internet banking performance - this is the friendliness of its interface, "ease" of the web site and the intuition of the performance of the operation. Many banks on their web sites provide demo access to the system, which is why they study the most common variants. It is important for the bank to stimulate people to conduct operations through the Internet-banking, and not so much to observe the schemes - if the system becomes complex, they do not stand still. In general, the conclusion of an appropriate system is quite operational and turns out to be just a typical revelation of a bank account, but with some exceptions. In the first case, it is possible to find a small amount of money in a bank with different currencies. In the second, sign a special agreement with the bank on the Internet access to the management right now.

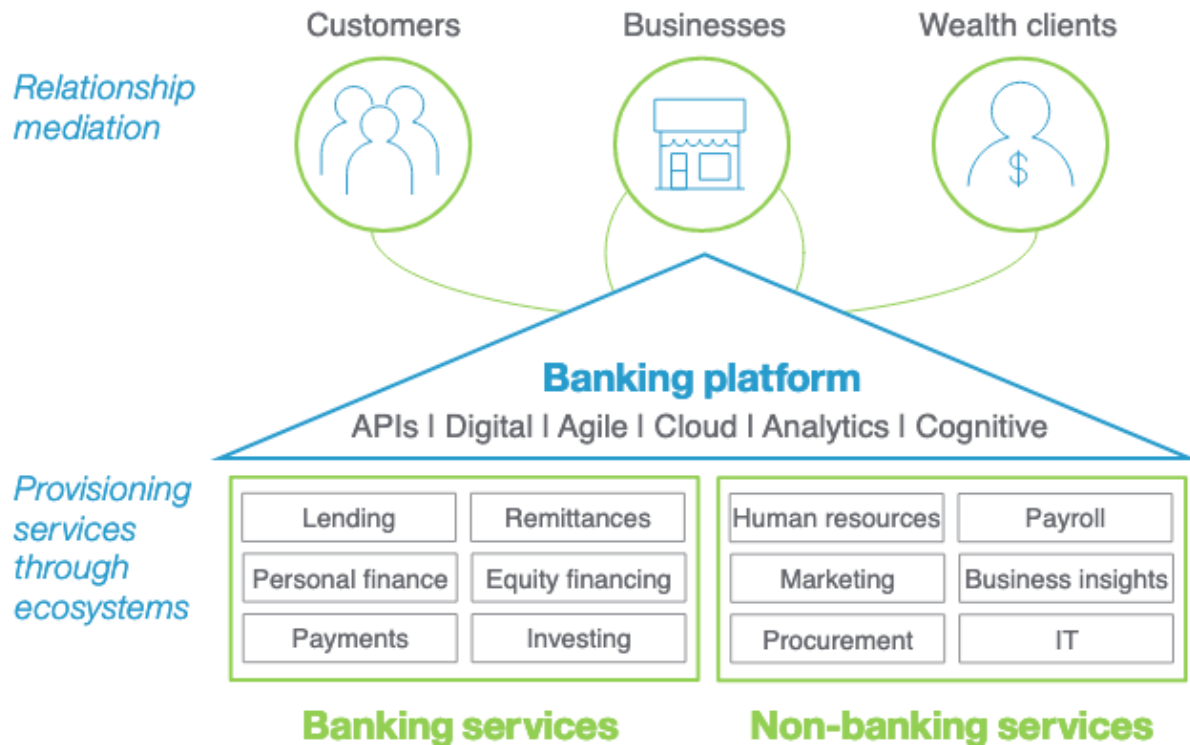


Figure 4. Virtual Banking platform description [9]

Some banks have a separate and completely fantastic way - for example, for the work in their "Electronic collection", the obligor's obliged to pay a special fee to the contractor who agrees to pay the contract. There is no way to pay in a free format - in the form of paid information service or for a load in an online magazine: only through the inclusion of a semiconductor in a list of personal information, which, as a rule, usually leads to a larger expectation.

A final work, which in the pursuit of safety and as comfort cannot say and say. In the third case, determine the system of safety. It will be a card of different passwords, a card of multiple passwords (computer, during operations, will be able to ask a number of passwords in an arbitrary order), But, finally, to determine the channels available to your account - it can be a regular phone, a computer or a mobile phone. Some internet banks, justice, are not optimized for non-large screen mobile phones and communicators, so it stands to be healed. In addition, some banks need JavaScript enabled to view it (in the default setting of Windows XP, some banks are absent). it is a service of pre-existing user privileges with the help of technical specialists (as, for example, in all operators). In addition, we find out that in many systems, the shafts and sides are used, the windows are opened separately, and the page is automatically updated. For the correct work of the appropriate attachments, it is advisable to convince yourself that the possibilities are not locked in your browser.

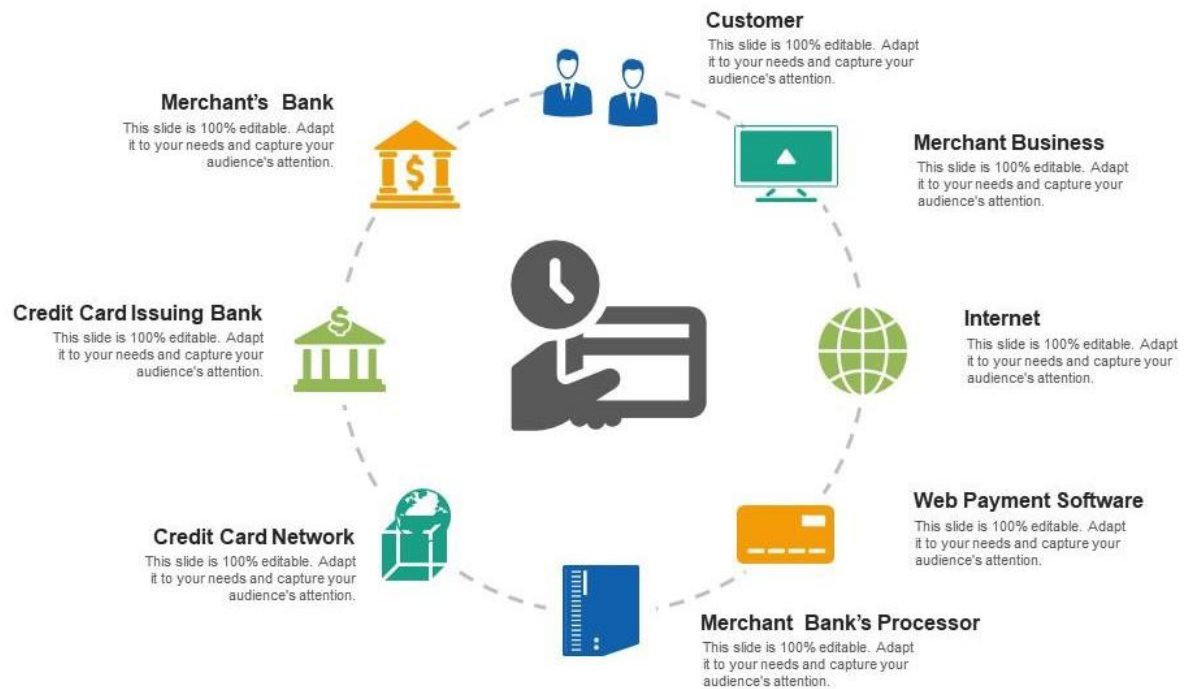


Figure 5. Virtual banking service interaction [10]

Without a doubt, for securing funds, exchanged in an electronic bank, login and password, usable for access to the system, is lacking. Creating a safe means of identifying the user will always be done with two counter-tasking tasks - to ensure complete safety and to be simple for the user. All four basic assets are backed up by clients to exercise their rights of management. In the first, it's one-sided slogans. Usually, a plastic card with applied steel frames, which is used to cover a protective layer and serve as a confirmation only for one bank operation. In the second, the method can be remote - on a registered mobile phone user when requesting an operation, it is corrected as well as an individual code, which is entered into the computer. In a word, an instant bank password is used to perform operations on a virtual keyboard with the help of a mouse.

In fact, Internet banking cannot be read fully without a block of active operations, which allows the user to multiply payment. The limited functional type allows you to view bank card records or SMS-certificates of conducted transactions, represented by themselves, finally, in the Internet banking there is no relation - this is just a fragmentary automation service.

After researching the functionality of this or that virtual bank, it seems that they are more interested in the prospects of its development. The work in which the perfection of services, available in a virtual bank, shows the interest of the bank management in the development of an appropriate system of financial and credit facilities. The main purpose of such perfection - to integrate all the possibilities in the interface of the Internet-bank for that, when the client does not want to enter their passport data, and, for example, in the case of a credit expert with a separate card.



Figure 6. Centrally controlled platform on virtual banking facilities [11]

Unfortunately, the provision of necessary credit bills (for existing clients), as well as the lack of management of their credit card, has been postponed until further notice in connection with the financial crisis, and this system has not been fully implemented. Many young players are getting involved in their approaching time, basically, completing their integrated support system for clients, which will be included in themselves as functions of Internet banking, only with a central bank and so on. In fact, the beneficiary should create conditions for comfortable payment (with the fact that they do not differ all day within the framework of paid projects) and quickly enter the means of electronic payments.

Develop, obviously, more than three virtual services. In the first place, this integration between different types is available. Users will be able to create their own payment list in the internet banking system and transfer this list to the mobile banking system. Then on a smartphone or communicator it is enough to indicate only a number of operations and sum transactions. Banks feel pressure to act in accordance with the principles of sustainable development. And while major banks are accelerating their branch closure plans, digitizing their experience and launching new products, new entrants are focused on doubling down on innovation, creating new business models to drive the next wave of transformation of the Uzbek commercial banks.

Discussion

If we analyzed such opportunities, expedient, interesting and necessary for example third party beneficiaries. Ready-made templates with requisites for screwing e-banking service are in the amount of not enough Uzbekistan banks, but enter into such a service plan and other financial-credit facilities. Practically, all the inhabitants of the country are hot, so that we do not have to pay in favor of the government and municipal structure, in the volume of which we pay for the order for the house, the house, the apartment, the machine, etc. Namely, because such a service gathers popularity in the client internet bank and has a greater potential for development.

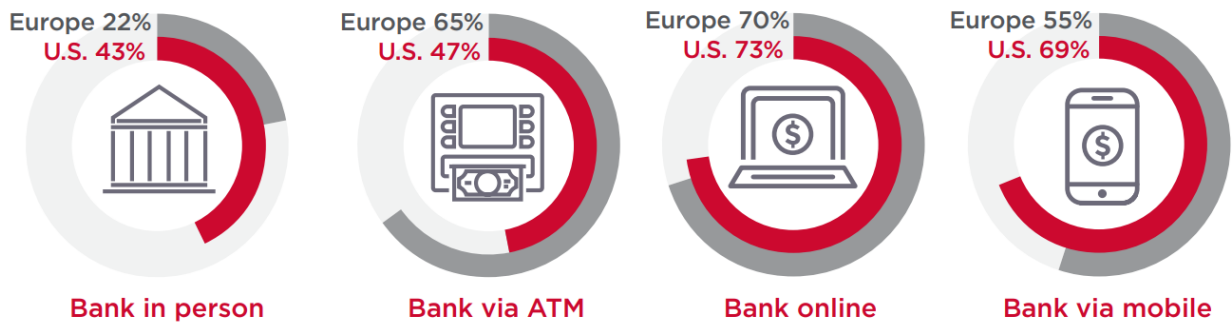


Figure 7. Systematic virtual banking expandible service structure

Third-party, this connection with other popular services. For example, it is possible to lock in virtual banking systems with armored tickets that are currently paid, rather than plastic cards, as organized in a larger eligible system. As a variant, to strengthen the systems of safety - the possibility of generations of given virtual plastic card short-term action on 2-3 payments or 1-5 days of action (with early institutional benefits). This is a very useful innovation, especially the widespread use of electronic tickets. For such a ticket it is possible to pay, not to "shine" in the seamstress, but always make a system of its

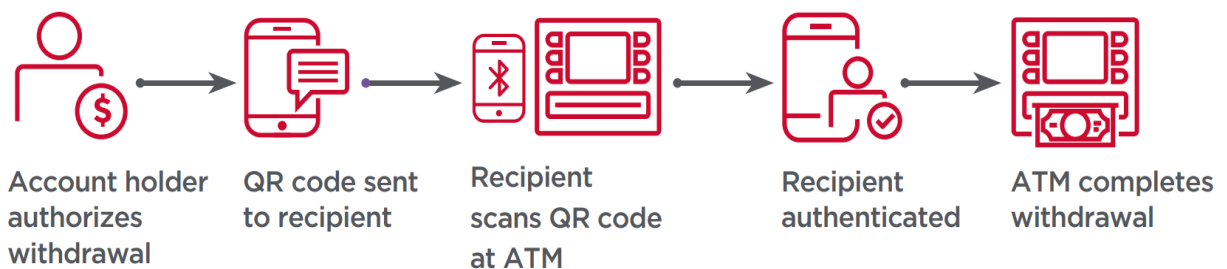


Figure 8. Networking of virtual banking services

But, why would you want to have any device in your financial institution (FI), other than people using computers and electronic smart devices, sharing information with the internet? Because it's soon going to become part of the new normal in nearly everything consumers do, including how they bank. And because consumers want to do more with less money, time and hassle, like having their smartphones make seamless, automatic payments for them.



Figure 9. Banking services based on IoT [12]

The IoT also supports the every-channel customer service experience they expect. With smart devices that are synched and working together, a person can start a transaction on a mobile or IoT device and then finish it in-branch—without any interruptions or having to repeat steps in the process. Even better, you can engage them along their transaction journey, increasing customer satisfaction.

Conclusion

Internet Banking Development develops new and perspective making, which develops rapidly in all peace, inheritance of high competition in the ringbank service. To reasonably develop this creation, a bank can first propose actual service has a large number of active populations. As a rule, in usinterested in unsuspecting people, appreciating their time and Introduction of changes in the use of credit organization technologies bank services or remittances bank services require radical

innovation took place in "knowledge" of its origin, and then - in the content and organizations of intra-bank processes. elaboration perfect new process of changing conditions of banking activities. Determinant factor Internet banking needs to be properly managed and controllable bank activities in Uzbekistan.

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