

Challenge and Opportunity of Mobile Banking in Afghanistan

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Abstract:

Mobile banking is a major advancement in information technology, transforming the banking system by enabling users to conduct transactions anytime, anywhere. In Afghanistan, it was first introduced in 2017 by Azizi Bank, leading the way in accessible banking. However, several challenges remain. This study examines the challenges and opportunities of mobile banking in Afghanistan using a mixed-methods approach. Data was collected through surveys and interviews. Findings show that only 12% of respondents see mobile banking as secure and convenient, while 88% express concerns over cybersecurity risks, network reliability, weak internet infrastructure, unstable income, and lack of trust in banking services. The study also highlights key barriers such as low digital literacy, regulatory challenges, limited infrastructure, low income levels, public distrust after political transitions, and poor internet access. Despite its potential, overcoming regulatory, infrastructural, and socio-economic challenges is crucial for the growth of mobile banking in Afghanistan. The result is mobile banking in Afghanistan is currently facing major problems that investment in this sector has not been made and what is needed, mobile banking services in Afghanistan have not grown.

INTRODUCTION

The new century, unprecedented growth of technology and its usages in human's daily life has become an important and irreplaceable matter, humans use technology in all their daily activities [1]. This growing trend of technology and non-substitution in the life of humanity creates the concept of automation in human life [2] [3] selling and buying activities can be done anytime and anywhere through applications that are on their mobile devices [4]. The use of technology plays an important role in various fields of life such as; education, health, business and other parts of human life [4]. The use of technology in the banking sector in recent years has been one of the most important and undeniable factors in the growth of banking in developing countries. Banks always try to provide the best services for their customers, so that by using technology, they can avoid major problems, such as; preventing the customer from wasting time on banking services queue, such as; withdraw money in their

account, sending money to other accounts, and so on [5]. They offer their business deals. And this will be realized when banking services are in the hands of customers [6].

Mobile banking plays an important role in the banking sector in recent years. Mobile banking or digital banking refers to the banking where all services are performed by the customer using mobile phones, anywhere and at any time [7]. Mobile banking is like internet banking, all banking services are done quickly and easily using customers' mobile phones [8]. Afghanistan is a country which is located in south Asia with almost 40 million populations resident and it is a war-torn and poor country which has caused the lack of technological progress in various fields of this country in four decades of war. However, banking has grown significantly in this country and a total of 17 private and governmental banks work in Afghanistan. Including 3 government banks, and 5 branches of international banks work in Afghanistan and the rest are private banks [9].

Mobile banking is done by smart phones, customers can access their bank accounts and services like collect money in their account, send and receive money in their bank account, perform other banking activities in the shortest time and at any place. Mobile banking has become one of the most popular banking methods in recent years [10]. Mobile banking has been able to improve banking services and improve the customer's satisfaction and access to their bank accounts whenever they want and do not need to wait time in bank queues to access their accounts [11].

This research paper only discusses the opportunities and challenges in mobile banking in Afghanistan banking sectors. Afghanistan has approximately 40 million populations, according to the information of the directorate of ATRA 20 million Afghan citizens have access to mobile services. According to the information of De Afghanistan bank, about 10 million Afghan citizens in Afghanistan have access to banking services. In Afghanistan, people use ATM and other digital banking services. However, there are problems in mobile banking.

In Afghanistan, mobile banking was introduced for the first time in 2017 with the creation of the first software called Azipay by Azizi bank in Afghanistan. Later, mobile banking has been considered by commercial banks to provide bank lending services through mobile phones [12]. Mobile banking services in Afghanistan are carried out in different ways. Mobile banking is provided by telecommunication companies. These companies provide banking services only for their customers and their customers can perform less activities. And mobile banking provided by banks for their customers. Other researches have been conducted on the challenges and opportunities of banking in Afghanistan, but this research is only about the users' challenges and cannot reveal the major challenge in the mobile banking sector, and in this article, the major technical challenges. The services of telecommunication companies provide a way for mobile banking and the challenges faced by the users' in the process of using mobile banking are examined. Opportunities in Afghanistan for the implementation of mobile banking will also be discussed. The research question are What are the key challenges affecting the adoption of mobile banking in Afghanistan. How can security measures and financial literacy improve user trust in mobile banking in Afghanistan.

Research problem background are Mobile banking has emerged as a crucial alternative for financial transactions, especially in developing countries like Bangladesh. While this technology provides accessibility and efficiency, various challenges hinder its widespread adoption. A significant issue is security and safety risks, with approximately 59.5% of users facing concerns related to transaction safety [13]. Challenges of mobile banking in Bangladesh, including low user awareness, incomplete service offerings by banks, security concerns, and the need for stronger technical controls to enhance consumer trust and adoption [14].

The research gap Studies in Bangladesh highlight challenges in mobile banking, such as security concerns, low user awareness, incomplete banking services, and weak technical controls [14], [13]. However, these findings cannot be directly applied to Afghanistan due to differences in financial infrastructure, security conditions, and banking policies. In Afghanistan, additional challenges include limited internet access, low banking penetration, and a high reliance on cash transactions. While some issues overlap with Bangladesh, Afghanistan's unique context requires specific analysis.

Hesab pay

Hesab pay is one of the mobile banking services in Afghanistan that was established in 2021. Hesab pay is the only mobile banking service in Afghanistan that the user can use for all his daily activities. Hesab pay 50k users in Afghanistan. Hesab pay users can use the mobile banking services by using its special software, or without the need for internet, by sending *580# to simple mobile phones.

Hesab pay services such as shopping, sending money to bank accounts, sending and receiving money from smart bank cards all over Afghanistan. Hesab pay is one of the mobile banking services in Afghanistan that the user can buy, send and receive money from all banks and other companies that have money services through Hesab pay anytime and anywhere.

Hesab pay users can check and track the flow of all banking services and transactions in real time. In order to increase the security of the user's information, Hesab pay has also provided the security of multifactor authentication for its users.

AZI pay

Azizi Bank is the largest commercial bank in Afghanistan and has the most customers among Afghan banks. This commercial bank has always tried to provide better banking services in Afghanistan for its customers.

Azizi Bank has always tried to create the necessary innovations in the field of banking to get the satisfaction of its customers. One of the services of this bank is the creation of software called AzyPay in 2017. This software allows customers to check their bank accounts or transfer money from one account to another. Now 150 thousand users use this software to perform their banking activities. Needless to say, this software has been updated in 2021, which provides better services to customers.

AZYPay has been updated again by Azizi Bank in 2024, in which the user can use this software for all their daily purchases and sales at the specified location using the prepared QR code. The users of this software can use its services only if they have a bank account in Azizi Bank, if the customers have bank accounts in other banks, they cannot use these mobile banking services.

METHOD

In this study, both qualitative and quantitative research methods were employed to gain a comprehensive understanding of mobile banking challenges in Afghanistan. The quantitative approach involved collecting numerical data through a structured 50-item questionnaire distributed to mobile banking users and providers using cluster sampling. This method helped measure key factors such as security concerns, user awareness, service limitations, internet suitability, and user trust in the banking system. This approach is similar to previous studies that utilized quantitative analysis for system evaluation [16]. The qualitative approach, on the other hand, focused on gathering insights through open-ended responses, using interviews with banks and other experts. This allowed for a deeper exploration of users' experiences, perceptions, and trust in mobile banking services. By combining these methods,

the study ensures a balanced analysis, providing both statistical evidence and contextual understanding to support the findings.

RESULTS AND DISCUSSION

In this research we distributed 50 questionnaire to the mobile banking users and also we conducted the survey through the interview with banks and banking sector experts .result of indicate that 12% of respondents consider mobile banking as a secure and convenient alternative to traditional banking, while 88% express concerns over network reliability and cybersecurity risks, lack of digital literacy, regulatory issues, limited infrastructure, low income levels, public distrust in the banking system after the political transition, and poor internet accessibility service in Afghanistan.

The current challenge of mobile banking in Afghanistan

1. The low level of people's awareness of mobile banking services

Mobile banking is one of the simple methods for banking transactions and other financial activities, customers can do all their banking activities anytime and anywhere as soon as possible, and they can also avoid the problems of transferring physical money to carry out activities. prevent business, buying and selling and other daily activities. However, after the creation of the first software by Aziz Bank, which provides services only for the customers of this bank, mobile banking services have not been very successful in the field, even the customers of this bank have not welcomed it, and the reason is lack of awareness of the services. Banking through mobile phones. According to the survey that was conducted, the 80% of the participants stated that one of the reasons for the lack of growth of mobile technology in Afghanistan is the lack of awareness among the people of this country about mobile banking.

2. Lack of access of the majority of Afghan people to better internet and banking services

One of the main problems that mobile banking has not developed and growth in Afghanistan is the lack of access to quality internet by the majority of the Afghan population. According to the information provided by ATRA(Afghanistan Telecom Regulatory Authority) in Afghanistan, 20 million Afghans have access to telecommunication services. Including approximately,13 million of them use internet services, and these figures show the minimum compared to Afghanistan's population of 40 million, and Afghan banks cannot provide all banking services through mobile phones, and investment should be made in this area. When Afghan citizens do not have access to internet services, banks and other financial sector merchants cannot invest in mobile banking.

3. Lack of trust in banking services in Afghanistan

Trust in banking is one of the important principles in this field and it is necessary for the customers of commercial and government banks to try to gain the trust of customers. But in Afghanistan, after 2021, customers' trust in banking services in Afghanistan has been reduced to a minimum. And customers don't make their financial deposits, financial transactions and other banking activities through banks, and the reason is that after the collapse of the republican government and the establishment of the Islamic Emirate, banking services suffered an irreparable blow and people cannot perform normal banking services in Afghanistan. One of the main reasons why mobile banking has not grown in Afghanistan, and commercial and government banks do not invest in it, is the lack of people's trust in Afghanistan's banking services.

4. High cost of banking transactions between banks

The use of banking services by mobile phones requires a central system that connects all banks and other financial, commercial, universities, and other day-to-day financial needs of customers. So that banking services can be done through mobile phones and customers can do all their banking activities anytime and anywhere with less cost. But this is one of the major problems of mobile banking in Afghanistan, where telecommunication companies and banks are trying to provide mobile banking services for their customers and can get customer satisfaction in the field, but these services are limited to customers who only. They have bank accounts in banks, they can only use the same banking services provided by the same bank. If customers want to use the banking services provided by another bank or use banking services for their business activities, this requires access to all banks. But in Afghanistan, there is no central system that can control and monitor all activities.

5. Absence of a comprehensive policy for mobile banking in Afghanistan

The only authority that defines policies and laws for banks in Afghanistan is Central Bank of Afghanistan or Da Afghanistan Bank. This bank has the authority to determine policies, banking regulations and other financial laws in Afghanistan. But so far, there is no clear law to support or define mobile banking that can encourage the private sector of this country to undertake mobile banking implementation programs. The non-existence of a regular policy for mobile banking in Afghanistan is one of the main problems against the growth of mobile banking in this country that banks cannot implement comprehensive activities in this field.

In Afghanistan, after the new government took office, the people did not have full access to their accounts, and they could not receive or send money from their financial accounts in a complete and arbitrary way at any time, and in this situation, one of the reasons for not using banking or mobile banking services is the same issue.

6. Lack of stable income of Afghan citizen

Afghanistan has faced severe economic recession after August 2021, when the annual income of the majority of the country's citizens is at least \$150 per year, and the citizens of this country are struggling with major economic problems. Therefore, the citizens of Afghanistan have not used mobile banking services and this is one of the main reasons against the lack of implementation of mobile banking in a country like Afghanistan.

Mobile banking opportunities in Afghanistan

1. Growth of technology in Afghanistan

The relentless growth of technology and human dependence on automatic life is increasing day by day and people always try to use technology to improve their daily life. Afghanistan is a country that has been involved in civil wars for many years, and with that, after the year 2000, there has been a clear change in the life process of the people, and this country has been trying to digitize administrative and government activities. Most of the investors in the technology sector have tried to bring technology into people's normal lives, and the people of this country have always welcomed technology and its use, and this can help in the growth of mobile banking in this country, and it is one of the basic sectors in daily life process of Afghan citizens.

2. The growth of digital currencies in Afghanistan

Digital currencies have grown significantly in the world in recent years and play a major role in the world economy. Citizens of these countries can use digital currencies in

their daily life to carry out business transactions and their normal lives. In Afghanistan, after the new government came to work, the unemployment level in Afghanistan has increased to an unprecedented level, and the majority of young people have turned to digital markets and digital currencies.

Despite the illegality of digital currency activities in Afghanistan, it also has a good growth in the societies of traditional countries like Afghanistan, and the majority of young people use these currencies for commercial transactions or buying and selling. All activities carried out by Afghan citizens in digital currencies are done using smart phones. This can be optimistic for the growth and popularity of mobile banking in Afghanistan. In the near future, it can replace the old banking system.

In this article, the challenges and opportunities of mobile banking in Afghanistan have been examined. Collecting information by distributing questionnaires for banks providing mobile banking services, users, and companies providing mobile banking services in Afghanistan have been distributed and collected. After analyzing and analyzing the distributed forms, the following results have been obtained. through questionnaire and interview.

The discussed context in this article can be summarized as follows. Introduction of mobile banking in Afghanistan, how mobile banking services have started in Afghanistan and which private and public banks offer mobile banking services. The sections examined are major challenges such as the absence of a single and comprehensive policy for mobile banking in Afghanistan. In Afghanistan, there is no clear law and policy for the implementation of mobile banking. In this context, the majority of participants in this research have agreed.

Also, another major challenge is identified the lack of access of the majority of Afghan citizens to sufficient internet services, which can be stated as the lack of technological infrastructure in 1 to implement and provide internet services. If Afghan citizens do not have access to internet services, it is a major obstacle to the implementation of mobile banking in this country.

One of the other challenges of mobile banking services in Afghanistan is the lack of awareness among the citizens of this country about mobile banking services. In this field, banks and companies providing mobile banking services have not invested in this field for the awareness of Afghan citizens. And the last challenge that can be mentioned in this article is the lack of trust of the majority of the population of Afghanistan in the banking services after the change in the political system of this country, which made the banking services seriously vulnerable that the citizens of Afghanistan faced difficulties in paying their bank deposits. And this is one of the major challenges in mobile banking services in Afghanistan.

The opportunities revealed in this article can play an essential role in the implementation of mobile banking in Afghanistan and lead to the implementation of mobile banking services in this country. One of which can be mentioned the growth of information technology in Afghanistan.

The growth of technology in Afghanistan has been on an upward trend and the majority of urban residents of this country have access to technology services and are interested in learning modern technology, which can keep banks and companies that decide to implement mobile banking in Afghanistan hopeful in the future. The second opportunity that can be pointed out is the growth of digital currencies among the youth of Afghanistan, after the fall of the government in Afghanistan, the majority of young people are evaluating

digital and investing in online markets as a source of income. which can play an effective role in the future for the growth of mobile banking services in this country.

As a result of the research, it can be concluded that mobile banking services in Afghanistan are a newly emerging phenomenon that the majority of the population of Afghanistan is not fully aware of, and it also needs earlier investment in this field by private and government banks than in this part of the program. Make awareness and investment for internet infrastructure.

Table 1. Factors ff Challenges and Solving Ways

Factor	Challenges Rating by score	Reason for the challenges	Suggestion for solving the challenges
The low level of people's awareness of mobile banking services	1.0	<ul style="list-style-type: none"> State banks do not pay attention to customer attraction and awareness programs in the field Private banks pay attention to urban customers and all their services are based on big cities. 	<ul style="list-style-type: none"> Developing a clear mechanism for informing about banking services and advantage of mobile banking by state banks. Private banks must be investment to remote and distance areas in Afghanistan and having incentive programs for customers.
Lack of access of the majority of Afghan people to better internet and banking services	0.9	<ul style="list-style-type: none"> Internet services in Afghanistan are expensive. Internet speed is very low in Afghanistan. Afghanistan's internet is fourth hand and Afghanistan itself does not have the sea route and import of better-quality internet. 	<ul style="list-style-type: none"> Reducing the price of the Internet or equalizing the price to neighboring countries. ISP must provide internet directly to mobile banking user without any cost.
lack of trust in banking services in Afghanistan	1.0	<ul style="list-style-type: none"> The majority of Afghanistan's population is Muslim and they do not trust banking services for religious reasons. The majority of Afghan population do not have spare money or savings. The majority of banks have set limits for money withdrawals after 2021. 	<ul style="list-style-type: none"> Banks in Afghanistan must consider to Islamic banking and knowledge about Islamic banking. Eliminating the limitations of paying money to customers.

Absence of a comprehensive policy for mobile banking in Afghanistan	1.0	<ul style="list-style-type: none"> • The government's lack of attention to mobile banking services. • The high tax and financial cost and monetary companies in Afghanistan. • The government's lack of attention to the international banking system. 	<ul style="list-style-type: none"> • Creating a regular policy for mobile banking by the government and the central bank that can take into account all aspects of banking. • Reduce the tax from investment companies in this field
Lack of stable income of Afghan citizen	1.0	<ul style="list-style-type: none"> • The majority of the population of Afghanistan has an average monthly income of 150 dollars. And The majority of the population of Afghanistan lives below the poverty line. 	<ul style="list-style-type: none"> • The government's attention to create employment for citizens.

And it still needs the support of the government, such as the arrangement of the law and a clear policy for mobile banking services in Afghanistan, so that investment companies and private banks can operate in a clear manner in accordance with the established law. Also, using the mentioned opportunities, private companies and banks can use incentive programs for the growth of mobile banking in Afghanistan so that mobile banking is implemented in Afghanistan.

The major limitations that can be stated in this research are the lack of effective and comprehensive research in the field of mobile banking in Afghanistan, which cannot be mentioned as a real research project. Another major challenge that can be pointed out during the research is the non-cooperation of public and private banks in sharing information for the research, which has not been done in the field of collecting as much primary information as needed.

The table below shows the figures collected based on the distribution of questionnaires arranged to 50 customers of public and private banks. Also, the information collected from 8 public and private banks, which was collected through interviews, is included. A score of 1 means 100 percent of the success of the interviewee and those who have filled out the questionnaires, that factor is considered and less than that means (1=100, 0.9=90, and 0.1=10).

CONCLUSIONS AND SUGGESTIONS

Mobile banking is one of the new methods of banking that users can access their bank accounts anytime and anywhere. As a result of this research paper, it is found that banking through mobile phones was possible in the beginning through SMS. However, mobile banking in Afghanistan started to operate in a fundamental way for the first time in 2017 with the creation of the first dedicated software for mobile banking by Aziz Bank. Later, in 2021, the first dedicated company in the mobile banking sector called Pay Account was created. According to quantitative and qualitative methods 12% mobile banking user agrees with the mobile banking in Afghanistan, and 88 % mobile banking user disagree with the mobile banking Major problems faced by mobile banking services in Afghanistan. People's lack of awareness of mobile banking services, lack of access to better Internet and banking services by the majority

of the population of Afghanistan, the low level of people's trust in private and public banks, and the high cost of banking transactions can be mentioned among the major problems of mobile banking in Afghanistan. It should not be left out that there are opportunities in this field, which include the growth of digital currency in Afghanistan and the growth of technology in the next decade, among other opportunities that can be optimistic for the growth of mobile banking in Afghanistan. In general, mobile banking in Afghanistan is currently facing major problems that investment in this sector has not been made and what is needed, mobile banking services in Afghanistan have not grown.

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