

Institutional Barriers in Popularizing Mobile Banking in Developing Nation: Bangladesh Perspective

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Abstract

Like other developed and developing countries, there has been enormous development in mobile banking (M-banking) in Bangladesh in the last few years. However, there remains numbers of opportunities and threats in the M-banking system of the country. The major threat of M-banking is its non-adoption by the customers. This research focuses on the institutional barriers to M-banking implementation in Bangladesh as a developing economy. In depth interviews along with observation technique have been conducted to collect qualitative data for this study. It has been revealed from the qualitative information that a wide range of institutions, from government to private are connected directly or indirectly to the implementation of M-banking. Research findings indicate that there has been a growing tendency of adopting the M-banking financial services. But the aims and intentions cannot be converted into action for the lack of trust on financial system issues such as the delivery channels, communication, infrastructures, government rules and policies etc. However, there is a preference for traditional banking systems and services rather than M-banking services. The study suggests that banks and other financial organizations should embark on awareness campaign in order to overcome the challenges of popularizing this contemporary banking method in a developing country like Bangladesh.

Keywords: Mobile banking, Institutions, Barriers, Popularizing

1. Introduction

As an alternative and innovative method to access the banks, M-banking has got substantial popularity in many countries. With its growing acceptability, the researchers have also shown much interest on various aspects of this contemporary and technology-based method of money transaction. However, context-based research on M-banking is still in its infancy stage, particularly in the context of developing countries. Because the mobile device marketplace grows rapidly, an increasing number of financial institution clients are exposed to mobile technologies (Suoranta & Mattila, 2004). Earlier research used one special term to M-banking, such as pocket banking, branchless banking and M-banking (Shaikh & Karjaluo, 2015), According to Barnes and Corbit (2003), as early as in the 1990s M-banking was introduced by Merita Nordbanken in Finland for banking clients to check the balance and make payments through mobile devices.

The fast unfold of cellular devices has engendered a proliferation of M-banking services for the duration of the arena, with precise significance in African and different growing-international countries in which the poorest contributors of the population have traditionally been unbanked, i.e., have no longer had a bank account. Consequently, cell telephony has contributed to an upward thrust in monetary inclusion for disadvantaged people in devel-

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oping economies, along with many African economies (Demirguc-Kunt et al., 2018). Monetary inclusion denotes shipping of monetary services e.g., financial savings, transactions, bills/transfers, credit, insurance, remittance services at a low fee to the deprived and coffee-income businesses (Kopala, 2010).

Globally, the proportion of adults who owned a proper bank account rose from 62% to 69% between 2014 and 2017. In the developing economies, the upward thrust was from 54% to 63% (Demirguc-Kunt et al., 2018). Based on the previous literature support it can be proclaimed that the number of bank account opening is quite higher in developing country rather developed due to the expansion of facilities provided by financial organizations as well as financial institutions. But, in 2017, it became additionally anticipated that 1.7 billion people in the world do not use formal financial offerings, and more than 50% of adults within the poorest households remained unbanked (Demirguc-Kunt et al., 2018). This suggests that there is nonetheless high-quality capacity for elevated financial inclusion in developing economies.

As a developing country, M-banking in Bangladesh has got a huge positive response countrywide and it has become the top financial service in Bangladesh. However, due to various institutional barriers, lack of information about mobile banking practices and benefits, traditional cash-carry banking culture, and customers' risk perception, mobile banking operations are in trouble to reach to much people in the country. Thus, this study intends to achieve research aim specially focusing on the institutional challenges in popularizing mobile banking in Bangladesh.

2. Literature Review

According to Tiwari and Buse (2006), mobile banking refers to facility and an ailment of banking and monetary offering with the support of mobile telecommunication devices. It may also embrace facilities to conduct financial institution transactions, to manage money owed and to access custom designed facts. Another study conducted by Akturan and Tezcan (2012) found that the market of mobile banking is still small compared to other digital banking counterparts consisting of Automated Teller Machine (ATM); internet banking, and so forth. Furthermore, it is stated that the substantial adoption and huge usage of cell phones did not mirror at the adoption and utilization of mobile banking (Iddris, 2012). Nevertheless, the banks in Nigeria are sprinting to apply and adopt this trendy technology to cut and reduce their operational costs and boom customer base (Agwu, 2012).

Sohel et al. (2012) conducted a descriptive study on the problems and prospects of M-banking in Bangladesh. Intense fraudulent activities, the dissatisfaction of customer, agent's complaints against distributor and banks, network problem etc. are discussed as the findings of the study. A huge number of unbanked people with a cell phone implies huge prospect of developing M-banking in Bangladesh as per the study.

M-banking is a new term in the banking industry of Bangladesh which is a mode and approach of offering financial services that association mobile wireless networks to qualify users to operate banking transaction (Inam and Islam, 2013).

For introducing and ensuring the smooth functions of any business, there remain the needs of formulating policy and executing those well. One of the major challenges of M-banking in Bangladesh is to execute the policy from the perspective of society, banks and regulatory authorities. Rahman (2013) argued that to execute the policy is not only a big challenge of M-banking from society's perspective but also from the perspective of regulation, financial institutions as well as government in Bangladesh.

According to Ahmed et al. (2011), the concept and application of M-banking is new in the context of Bangladesh and assumed to have numerous positive aspects both for the individual (customers) and the institution. As stated in their study M-banking is convenient and cost-effective unlike the traditional banking system and has a huge prospect as the use of mobile for banking transactions and air-time top-up services can be made available in the hands of people through it. Rahman (2013) found that almost all the users use M-banking for checking balance, fund transfer, fund withdrawal and mobile recharge.

Islam (2017) explored the problems and prospects of internet banking in Bangladesh. His study used an extended form of generally used Technology Acceptance Model (TAM) to checked and verify the adoption and opinion of internet banking service providers. Lack of universal adoption and acceptance of internet banking to the people of a developing country is the motive of adopting M-banking where people will need nothing but a single mobile device.

For over a decade, banking industry has changed its form rapidly. The changes have been brought for either their own interest to develop and bring growth in banking industry or to adapt with the customer demand and changes of technology. M-banking has been analysed from different perspectives. In this section, the overview of literature sources is focused on researches dedicated to M-banking stakeholders and importance of their role in developing mobile banking in Bangladesh. The main contribution of the revised literature is in its provided insights about the importance to reveal the institutional barriers to the implementation of M-banking in a developing country like Bangladesh.

Ample literatures on M-banking is evident in developed country context. However, research on M-banking related to institutional barriers in a developing country context is surprisingly limited. This study is an attempt to fill that gap in literature.

3. Objectives of the Study

The key objective of this research is-

To identify the key institutional barriers to the implementation of M-banking in developing countries from the perspective of Bangladesh.

3.1 Specific Objectives

- a) To understand the institutions involved in the implementation of M-banking in Bangladesh.
- b) To propose recommendations for popularizing successful M-banking practice in a developing country like Bangladesh.

4. Methodology

4.1 Research paradigm

This research aims to understand the key institutional barriers to the implementation of M-banking in developing country primarily in Bangladesh. For this, the researcher requires to have a deeper understanding of the complex respondents' world and present a realistic view of the phenomenon. A qualitative research mode includes assumptions, purpose, approach and researcher role which starts with socially constructed reality and ends with empathetic understanding. In understanding the people's experiences, qualitative research approach is more effective (Crivello, Camfield and Woodhead, 2009). Holistic and in-depth investigations underpin the researchers to adopt the subjective paradigm (Feagin et al., 1991). Thus, the study will be anchored in qualitative theory building (Yin 1994; Eisenhardt and Graebner, 2007; Corbin and Strauss, 2008).

4.2 Data Collection

Data that are used in the study basically has been collected from the primary sources. Data were collected from face to face interview administered by the researcher himself. The researcher followed snowball sampling method to take interview from the respondents. Snowball sampling is a practice in which a small group of initial participants help researcher to find more participants by accessing their social networks. Snowball sampling is convenient, cost effective and used for locating information-rich cases in a short period of time. The researcher first went in the initial contact point then those contacts were asked to help locate the other knowledgeable respondents. In response they recommended the names of employees of other banks, institutions and distributions and agent points. The researcher collected information until he found that information reached the saturation level.

4.3 Sources of Data collection

There are mainly two sources of data collection. One is primary and the other is the secondary sources. The researcher mostly used the primary sources which is collected from in-depth interviews conducted during the study period and websites of banks and other institutions involved in M-banking, related articles and publications are used as secondary sources. The in-depth interviews were collected from the regulatory bodies, members of central bank, commercial banks, telecommunication companies, subsidiary companies, distributors, agents who are considered as the major institutions of M-banking.

4.4 Interview Schedule

The 115 in-depth interviews have been collected for 6 months from December 2016 to May 2017. The researcher has collected information from thorough in-depth interviews from the respondents from 18 districts from five divisions of Bangladesh during the study period.

5. Significance of the Study

Through the findings of the study the risks and barriers to the implementation of M-banking which will be revealed by the researcher will be effective for the institutions and other service provider related to the introduction of M-banking. It will help those providing proper guidelines about the procedures of implementation and considering factors for introducing M-banking in developing countries like Bangladesh. The researcher addresses

the following significances for a profitable and successful M-banking business in Bangladesh which are revealed by the study:

1. When the institutional barriers will be understood by the service providers, they will be able to take desired actions which will help them to implement a profitable M-banking solution.
2. Existing literatures of M-banking regarding the institutional barriers of M-banking will be enriched.
3. If any institution of a community or country desires to introduce M-banking, then the application of this study will have great significance in the context.
4. It will be helpful for other researchers on this field for conducting further research study.

6. Data Analysis

Thematic data analysis method has been applied in this study. “Theme” is the main product of data analysis that yields practical results in the field of study (Green, 2007; Krauss, 2005).

The definition, similarities and differences of qualitative content analysis and thematic analysis have been defined. According to Vaismoradi et al. (2013), there are many similarities between qualitative content and thematic analysis, for instance cutting across data, philosophical background, attention to description and interpretation in data analysis, consideration of context of data and searching for themes etc. In thematic analysis a researcher considers latent content as theme.

6.1 Introducing the Institution’s Involvement in the Implementation of M-banking in Bangladesh

M-banking emerged in Bangladesh to achieve the goal of financial inclusion which is an important clause of Sustainable Development Goal (SDG). Keeping the vision ahead, Bangladesh Bank has imposed guideline and made policy for introducing M-banking in Bangladesh. From the starting phase to service distribution, many institutions are involved in mobile financial services.

6.1.1 Bangladesh Bank

Bangladesh Bank is playing a significant role as the regulatory body in M-banking in Bangladesh. From the introduction of M-banking along with introducing rules and regulations, licensing, updating regulations, monitoring the market, taking action against any disturbances etc. roles and activities are performed by Bangladesh Bank.

6.1.2 Bangladesh Telecommunication Regulatory Commission (BTRC)

Under the Bangladesh Telecommunication Regulatory Act 2001, Bangladesh Telecommunication Regulatory Commission (BTRC) was formed on 31st January of 2002. BTRC plays an important role as a regulator for telecommunication companies, not for the banks.

6.1.3 Bangladesh Institute of Bank Management (BIBM)

BIBM is the national training, research, consultancy and education institute on banking and finance collectively owned by all banks that are in operation in the country. BIBM, registered under the Societies Act 1860, was established in 1974 with an initial prime focus of providing training to the officials of banks and financial institutions of Bangladesh in order to support, strengthen and update their skills. BIBM also provides training to the bank employees regarding M-banking as well.

6.1.4 Commercial Bank

The banking system of Bangladesh is composed of variety of banks working as national commercial banks, foreign banks, specialized banks and development banks and the number of the banks in Bangladesh is quite rich. Banks are playing a vital and essential role for the economic development of a country. Commercial banks play the most important role in M-banking in Bangladesh. They have started M-banking from their own capital and infrastructure.

6.1.5 Telecommunication Company

Telecommunication Company (Telco) is one of the key stakeholders in M-banking. They are playing significant role in the field of M-banking. There are mainly four Telco in our country such as Grameenphone, Banglalink, Robi and Teletalk. What role they play in the field of M-banking is described by the interviewees at the time of data collection.

6.1.6 Subsidiary Companies

When Bangladesh Bank imposed guideline to introduce M-banking to the commercial bank, the entire scheduled bank started Mobile Financial Services (MFS) by launching the same in the market. Among them, BRAC bank didn't start M-banking by their own rather they did it with a subsidiary company named bKash. Bangladesh Bank also provided license to bKash on September 2011. From that time bKash is successfully doing its business in Bangladesh and it is the leading mobile financial service provider in Bangladesh. It also plays a very important role in M-banking. Subsidiary company is responsible for corporate financial service, anti-money laundering activities and awareness building through intensive promotion in mass media. They are playing significant roles as all the commercialization and marketing activities are being performed by the subsidiary companies. They are working hard to fulfill the objective of Bangladesh Bank and the government.

7. Institutional Barriers while Introducing of M-banking in Bangladesh

7.1. Barrier of Security and Illegal practice of M-banking

One of the major challenges of M-banking is that customers do not feel secured while doing the transaction through M-banking. They feel insecure of losing money every time. People have trust on banks from a long period of time as they are doing transaction under conventional banking from the seventeenth century. Though M-banking is an advanced service provided by bank, they hardly have trust on it. The bankers are ensuring hundred percent on the security concern but still there has been the fear of account hack in the mind of the customers though it seems to happen once out of thousand transactions.

7.1.1 Limited Security

Secured transaction is the utmost importance in M-banking because it is monetary transaction and maximum transactions are held in emergency situations. However, money can be lost by a small mistake; agents feel fear of hijacking too. They are becoming victims of hacking, fake call from the territory officer mobile number or from the office number. So, M-banking is not secured to customers yet (Comminos et al., 2008; Parvin, 2013).

7.1.2 Active Fraud Group/Hacker/Hijacker Troubling People

Fraud group is the major barrier in M-banking always; mainly in bKash from its very beginning. Many agents and clients have suffered and lost their money. To stop these fraudulent activities, no one is doing anything. Fake calls, SMS, hacking account number, mugging are the major fraudulent activities, in M-banking (Mahesh & Dubey, 2009).

7.1.3 Fake Accounts

At the beginning of M-banking in Bangladesh, there were many barriers. Verification of Know Your Customer (KYC) form with the NID and photos was not done at that time properly. As a result, people opened account using other's NID cards e.g. father or relative. One can have one account but with the same ID card multiple accounts had been opened that are treated as fake accounts. Besides this, many people opened fake accounts too for fraudulent purposes.

7.1.4 Financing in Terrorism

Terrorism is a global threat. The terrorists obviously need money for different illegal purposes to buy arms, employ more terrorists and bear other cost. M-banking is becoming popular for financing terrorist activities. Not only local terrorists but also international terrorism might have link with it. So, it can be an attractive way for financing the crime. Not only this, M-banking is being used for transferring money abroad. This is really a big matter of thought (Hayat, 2009). Though government and Bangladesh Bank have taken initiative by reducing the limit of transaction by M-banking, whereas, terrorist financing is still continuing which is not accepted locally and globally.

7.1.5 Money Laundering

Transferring money in an illegal way is widely practiced in Bangladesh. Money laundering is a term that has become conflated with other forms of financial and business crime and generally it is used more to include the misuse of the financial system (involving things such as securities, digital currencies, credit cards, and traditional currency). In Bangladesh money laundering is occurring through M-banking. For this reason, sometimes foreign remittance is reduced substantially.

7.2. Barriers of Adoption

Customers are the ultimate revenue source for any business. M-banking is treated as "hot dog" in recent times. This financial service has reached the ultimate customers more rapidly than any other services in Bangladesh. However, for availing this service customer has to gain some knowledge about the maintenance of personal account in M-banking. Though M-banking is one of the easiest ways of transaction, to use this, users have to gain some

technical knowledge. In the country, more than 40% people are illiterate who are the main target customers and are also rural poor people. So, adaption of M-banking by the illiterate people of the country is a big issue to be addressed. This lack is the most significant barrier of M-banking in Bangladesh.

7.2.1 Lack of Awareness among Customers

Strong economy depends on successful financial sector that is mostly considered as banking service. M-banking is the recent financial service which started in 2011 through the guidelines of Bangladesh Bank to the commercial banks that bring the banking service in our hand. Mainly agents provide this service directly to the customers on behalf of bank. As per the rules, transactions have to be made by personal account. However, most of the customers do it by taking the help of agents or by their accounts. They sometimes share the PIN number because they are mostly illiterate or do not know well about M-banking. So, customers have lack of awareness of M-banking.

7.2.2. Lack of Direct Contact between Bank and Customers

Normally in banking business, clients and banks have direct relation with each other. Clients go to the nearby branches of bank for getting services. However, in case of M-banking, the service is provided indirectly to the unbanked people through agents. Agents are controlled by the distributors. So, here is a long channel that creates a huge gap between bank and clients. Bank cannot provide service directly or solve customers' complaints and customers could hardly know the service provider.

7.2.3 Lack of Technical Know-How

M-banking is a technology-based financial service. Customers need to have technical knowledge to run or maintain M-banking properly. It has multiple options like payment, sending money, top-up etc. Many customers do only the cash out. There is a tremendous lack in technical knowledge of the clients regarding various service operations.

7.3. Barriers of Infrastructure

Technology is the key to success not only in business but also in every field in modern days. The country which is most sound in technology is treated as the global leader. China, USA, Japan, Korea and India are serious to execute revolutionary development in their technologies to cope up with the advancement of the modern age. Bangladesh also needs to adopt modern technology in banks as well as infrastructure in banking. However, people of Bangladesh are not up to date with technological advancement. Mostly, they are uneducated poor people. M- Banking is the process of the digital invisible transaction of money. In Bangladesh, there is lack in advanced technology and required infrastructure for successful M-Banking (Ali, 2010).

7.3.1 Limited Server Capacity

M-banking flows systematic process for transactions which is completed by using the mobile phone. It needs uninterrupted network connectivity. Short Message Service (SMS) is sent for every transaction and notification about the present status of the account. Sometimes, notification message is not transmitted as there could be a problem with the server.

As a result, money is not received timely. If people need money urgently while the server does not work properly and the customer falls under severe problem.

7.3.2 Limited Resource and Capability

In order to introduce a new product, there is a need for resources such as machine, expert and new raw materials. Similarly, to start M-banking, the banks face the same challenges. They require resource and capabilities which are very limited. This is one of the barriers to M-banking in Bangladesh.

7.3.3 Lack of Efficient Employee

Efficient employee is like the lifeblood of a business organization. They do all the tasks according to the demand of the business. M-banking is a new business in our country. In its introductory stage, it was really hard to find out the efficient employees. Many banks got troubled to recruit the eligible employees for this sector. So, there is a shortage of efficient employees in this sector. At present, it is a big challenge in this sector of Bangladesh.

7.3.4 Dependency on Foreign Software

For introducing M-banking, the first thing that is needed is software. After the imposition of rules by Bangladesh Bank to open M-banking, the banks faced the challenge of getting the software. They searched a lot, but domestic software was not available; then they collected software from abroad. Still, banks depend on the foreign software. However, our own software should have solved this problem.

7.4 Connectivity Barriers

As per the rules of Bangladesh Bank, M-banking will be performed on the basis of the bank-led model. That means, bank will be the owner of M-banking service and they will fix all the things as per the rules. The problem is that banks can't open new branches or recruit new employees for M-banking. Banks can't reach the rural areas as most of them do not have any branch there. Also the lack of network connectivity is a serious problem for M-banking. To reach the root level customers with network connection, banks need facilities from Mobile Network Operator (MNO) like Grameenphone, Robi, Banglalink, Teletalk in Bangladesh. However, the MNOs demand high charge and do not support the banks fully.

7.4.1. Unable to Control MNOs

Telco, the mobile operators who facilitate connectivity to the bankers to run M-banking and reach to the ultimate customer smoothly. There are some countries where M-banking is performed based on Telco. However, it is different in our country. M-banking is performed by bank-led model. MNOs are providing the connectivity, their customer and their distribution outlet too. For this, they charge more as perceived by the agents. There is lack of controlling system of MNOs.

7.4.2 MNO's High Demand

MNOs are the key players of mobile financial services in Bangladesh. They are the network providers. MNOs of other countries such as India and Kenya take minimum charges for this service. But, Telco of our country charges higher than the others. It is creat-

ing huge pressure on the banks as they hardly make profit from this business. The big mobile operator has big number of clients; they can help easily and more effectively rather they charge high cost.

7.4.3 Complexity in USSD (Unstructured Supplementary Service Data) Connectivity

M-banking has emerged with great prospect to increase the financial inclusion of people in Bangladesh. To increase the financial inclusion is one of the goals of Sustainable Development Goal (SDG). M-banking will help fulfilling that goal. For initiating this, banks need to make contact with the mobile operator for getting the Unstructured Supplementary Service Data (USSD) connectivity. However, Telco set infeasible demand. That is creating complexity in getting USSD connectivity which reduces the profit ratio of bank in greater portion.

7.4.4 Network Problem

From the very beginning of M-banking people feel unsecured and fear of losing money. How it happens is confirmed by notification through SMS authorized by mobile operator. But mobile network fails every time and money is not delivered timely. While SMS doesn't also come and people get worried.

7.4.5. Limited Return on Investment

Every business has some goals. One of the major goals is to earn profit or maximize the profitability. Many banks have introduced M-banking into the market not only serving the customer and facilitating the ease of money transaction but also to make profit. To run this M-banking, banks are to maintain the Telco for USSD service, distributor and agents. These parties work for banks for commission. But they charge high in Bangladesh than the other countries around the world. The return on their investment is very limited. Dissatisfaction works for banks and for this reason banks may not be interested to continue this business in near future.

7.4.6 Higher Transaction Cost of Banks

M-banking is availed by all the banks to comply with the rules of Bangladesh Bank. It is not like that all the banks introduced M-banking from their own interest. The reason is that banks are financial institutions and they are for a transaction. To run M-banking, banks have to pay proper commission to the distributors and agents. They have to recruit new employees or open service office for M-banking which is related with transaction cost. As the transaction cost increases, profit is reduced for banks which is a big challenge for M-banking in Bangladesh.

7.4.7 High Initial Cost

To start a new business, some initial cost is necessary. However, in case of M-banking the initial cost is high. From the development of software up to reaching the service to the customers by distributors and agents, higher costs are incurred which is mostly borne by the bank. At the initial stage, banks had to make up all the parties involved. It has to develop infrastructure as well. For some banks, it becomes a burden. The banks which made much initial cost may need much time to get return on investment from the initial investments.

7.4.8 High Maintenance Cost

Cost is an important factor in every sector of business. M-banking is the easiest way of including people in financial transaction. But it charges more than the commercial banks. For 1 lakh Taka transaction cost is 1000 Taka which is considered higher than several banking services. M-banking is to support the poor people but if they charge higher cost of transaction people will lose interest in it. Thus, the noble cause of poor people's inclusion in financial sector will be interrupted.

7.4.9 Increased Expenditure of MNOs

Telco provide network connectivity to the bank for M-banking. They provide the capacity to use for the M-banking as they do it for their subscribers. For a single transaction, their capacity remains blocked for about 90 seconds, but they do not get back the proper cost from the banks rather they incur the loss.

7.5. Distribution Barriers

As we know that banks do not do any distribution job. Banks provide financial services by depositing money from and sanctioning loan to the customer. M-banking service should be available to the customers like a retail shop. So that they can do transaction whenever they want. However, there is not enough distribution channel or service providers like the agent. They are even not available all the times. They do business in their own way rather than looking for the bank's interest. To reach this service to the customers' point, there needs a lot of distribution channels which are still unavailable.

7.5.1 Handling Distributors Cash

The distributor is one of the important players in M-banking. They are recruited by the banks or subsidiary companies like DBBL, bKash or other for maintaining the agents and monitoring their transactions. They have to hold a big amount of cash. They withdraw money from the banks to distribute it to the agent place. However, the problem is that the distributors are in a fix of handling the huge amount of cash. They feel unsecured.

7.5.2 Distributor's Inefficiency

Banks do not have any door to door service providing capability. For spreading the M-banking service, banks recruit distributors who deal with the agents. The distributor is normally the common body maintaining business or other activities. They are not recruited properly. There is question about the bank employee selection procedure. As a result, most of the assigned supply chain activities are performed through inefficient distributors. They do not take any strategic action regarding the agents' complaint. They are just doing what they are ordered to do.

7.5.3 Over the Counter Transaction Tendency

Over the Counter (OTC) means M-banking transaction through agent point. Sending money from agent's account to another account is OTC transaction. However, if they send money from agent to agent, then they do not open the personal accounts.

7.6. Policy Related Barriers

7.6.1 Incomplete Guideline from Bangladesh Bank

Central bank is called the banker of banks. Central bank takes care of the commercial banks and helps those providing favorable rules and policy and restricting them in some cases by imposing guideline. Bangladesh Bank forms guidelines and all banks oblige by those to introduce M-banking. However, in that guideline, there is no complete guideline regarding the commission structure with Telco. In M-banking, total infrastructure is related to distributor and agent. For this, incomplete guideline of central bank, commercial banks are facing serious trouble to run M-banking profitably.

7.6.2 Lack of Collaboration between BB and BTRC

Bangladesh Bank is the regulator of commercial banks and Bangladesh Telecommunication Regulatory Commission (BTRC) regulates the Telco. Commercial banks like BRAC bank, DBBL, One Bank, Trust Bank etc. and the Telco are like GP, Robi, Banglalink, Teletalk in Bangladesh. To run M-banking successfully, banks need the network connectivity support from the Telco. So, there is a need of integration and coordination between Bangladesh Bank and BTRC which is really absent from M-banking. This gap creates a barrier to the success of M-banking in Bangladesh.

7.6.3 Absence of Client's Database

A bank is a such kind of institution that keeps record of all transactions and needs to keep a huge database of customers for many years. M-banking is another service of bank besides its core banking service. Banks keep all records of customer database in core banking, but it is surprising that banks have no record of any transaction of customer in M-banking. M-banking clients are also banking clients. However, banks do not have any client's database in M-banking. This is a serious barrier in this rising financial service in Bangladesh.

7.7 Service Delivery and Promotion Barriers

7.7.1 Inadequate Banking Service

bKash is the market leader in M-banking sector in Bangladesh. It is a subsidiary institution under BRAC bank that is approved by Bangladesh Bank in 2011. In the context of Bangladesh mobile banking services are inadequate due to the absence of M-banking initiatives taken by banking organizations and other related financial institutions. M-banking is to provide the banking facilities to unbanked people.

7.7.2 Customer Dissatisfaction

In service sector, satisfaction of customers mostly depends on the quality of service and behavior of service provider. However, due to some limitation the agents cannot provide enough service to the customers sometimes. To serve the customers agents need cash balance promptly but distributors do not provide it timely. For this reason, agents cannot do anything for their customers. Customers also become dissatisfied as the customer care does not support them well. Customers do not get service from them. Dissatisfied customer is a threat for business.

7.7.3 Inefficiency in Agent Selection

Agent selection is a critical task for banks. Agents play the key role in creating brand image and customer loyalty as they provide service to the customers directly. If agents do not behave properly or if the service providing quality is very poor, it hampers the image of the bank. So, agent selection is a challenging task. Agents always play a vital role in M-banking to all financial organizations, but they are not capable of maintaining a huge number of agents all across the country. Local agent selection in rural area is more complicated.

7.7.4 Money Disbursement Problem

M-banking emerged for financial inclusion in our country. For financial inclusion, there are lots of activities needed to be done by the banks, such as promoting the service, selecting the distributor and agent, agreement with Telco which is really hard to be executed by the bank.

7.7.5 Limited Promotional Activities by the Banks

M-banking is the product of bank. The companies promote their product to increase customer awareness, brand knowledge and finally make the customers buy the product. However, banks do not take promotional activities. They just campaign at some places or hang big billboard in the big cities. So, huge number of potential customers in rural areas remain unaware regarding M-banking as there is limited promotional activities by the banks.

7.7.6 Unplanned Customer Care

In every business or service sector, customer care should be compulsory. We have seen it in many service organizations such as telecommunication companies like GP, Robi customer care, mobile phone customer care etc. Customer care is mainly set in order to provide customer service, take account complaints and solve those as well. This will enhance the customer loyalty by increasing their trust and satisfaction. But in case of M-banking customer care does not serve enough to meet customer expectations. Even the customer care of bKash cannot fulfill the minimum expectation of customer in case of their emergency situation. They do not do anything for customer even after the reference and request of the agent.

7.7.7 Illegal Agent Activities

Agents are the heart of M-banking. They directly meet with the customer and provide services to them. Agents are the representatives of a bank and its subsidiary. They have to maintain some rules and regulations. They must have agent account by which they will make transactions with distributors or banks and customers. But there are some bad agents who violate the rules and do transaction using their personal accounts.

7.7.8. Risk of Losing Image

Commercial banks are the owners of mobile financial service in Bangladesh. They are the ultimate providers of M-banking service. However, the banks do not provide this service directly rather they provide it through distributors and agents and with network connectivity of Telco. In M-banking if agents do any mistake or network seems slow performing, banks will be held responsible for this ultimately. Banks have to suffer which reduce the banks' image that affect their core banking as well.

7.7.9 Bureaucratic Complexity

M-banking is playing an important role in the economic development of Bangladesh. A huge employment opportunity has been created by it. Financial transaction is also increased. The commercial banks that introduced this banking system have to make agreement with various parties involved with this such as Bangladesh Bank, BTRC that are the government organizations and they have some software partners. Where there is public service, there is bureaucratic complexity in most of the sectors under government. M-banking faces the same problem which needs to be overcome as soon as possible.

8. Recommendations

Through systematic evaluation, this study has brought about some findings mentioned in the previous part of the paper. In recognizing the challenges, advantages, and adoption dynamics of M-banking and its implementation in Bangladesh. In this section, the researcher presents some suggestions for improving the implementation of the M-banking in a developing country like Bangladesh:

- Policymakers need to strive to create an enabling, competitive environment for M-banking services among all the key stakeholders such as Bangladesh Bank, telecom operators, commercial banks, BTRC, distributors and agents.
- It is needed to be establish partnerships among certain key stakeholders in support of elements necessary for increased M-banking implementation successfully. The overall goal of partnerships should be the improvement of accountable and transparent M-banking ecosystem in Bangladesh which can be characterized by innovation, efficiency and inclusion.
- Governments and other key stakeholders need to work together to build awareness on M-banking services. Specifically, awareness campaigns need to address the cultural factors highlighted by this review: unwillingness to accept change, uncertainty avoidance, perceived power imbalance between the users and banking operators, and gender-based barriers. In addition, in order to enhance trust in M-banking services, stakeholders need to make sure that customers are aware of and protected as much as possible against cyber security vulnerabilities and threats.
- Banks need to use the already existing mobile networks to offer M-banking to the rural, unbanked people. Since it is proven that ICT infrastructure positively impacts the success of the adoption of M-banking, all key stakeholders must collaborate to improve the network availability and infrastructure. Deliberate initiatives must be set up to sustain high levels of ICT expertise.
- There is a need for policymakers, company managers and system developers to embrace more customer-centric approaches while implementing M-banking solutions, in order to make M-banking applications more user-friendly for people in Bangladesh
- Finally, the government of Bangladesh needs to set up retail banking policies that allow mobile network operators to start directly offering M-banking services. Key players in M-banking sector must work together to set up legal and regulatory

frameworks that, among other things, generate standards for interoperability of various M-banking application platforms, and ensure security controls to address the security, privacy and confidentiality concerns of the users.

9. Conclusion

This study has identified institutional barriers in implementing M-banking that hamper the adoption of M-banking by the people in Bangladesh. The barriers include security problem, insufficient infrastructure, poor mobile network connectivity, cost of services, problems related to the distributors, policy related problems and bureaucratic complexity. As the mentioned problems are the main reasons that are restricting successful implementation of M-banking in Bangladesh, the study suggests that the institutions related with M-banking such as the commercial banks, Bangladesh Bank, Agents, Distributors, MNOs, BTRC should work together to overcome these problems. Finally, the researchers provided recommendations for improved implementation of M-banking in Bangladesh in the following categories: an enabling and competitive environment; partnerships among key stakeholders; ease of opening bank accounts; awareness-raising; infrastructure use and development; consumer/user focus; and policy, conducive law and regulations.

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