

The Mobile Financial Services: Fast growing financial sector in
Bangladesh

By

Tanzia Sultana

19264049

A thesis submitted to the department of business administration (MBA)
in partial fulfillment of the requirements for the degree of Master of
Business Administration.

Department of management
Brac University
March,2023

©2023 Brac University
All right reserved.

Declaration

It is hereby declared that

1. The thesis submitted is my own original work while completing degree at Brac University.
2. The thesis does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The thesis does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. I have acknowledged all main sources of help.

Sincerely Yours

Tanzia Sultana

Student ID: 19264049

Approval

This thesis/project titled — The Mobile Financial Services: Fast growing financial sector in Bangladesh I submitted by Tanzia Sultana Of summer 2023 has been accepted as satisfactory in partial fulfillment of the requirement for the degree of Master of Business Administration on date of Defense.

Examining committee:

Supervisor:

Dr. Samina Haque

Senior Lecturer, BBS

BARC University

Co-Supervisor:

Dr. Suman Paul Chowdhury

Associate Professor, BBS

BARC University

Ethics statement

Hereby, I Tanzia Sultana consciously assures that, the following conditions are met for this paper

" The Mobile Financial Services: Fast growing financial sector in Bangladesh":

- 1) This is original work that has not been previously published anywhere.
- 2) At this moment, the paper is not being considered for publication anyplace.
- 3) The writer's research and analysis are accurately and completely reflected in the article.
- 4) The publication adequately recognizes the contributions of co-authors and co-researchers.
- 5) The results are examined in relation to prior and continuing research. If the Ethical Statement's rules are breached, it can have major consequences. I agree to the above statements and confirm that this submission follows the norms of Solid-State Ionics as outlined in the Authors' Guide and the Ethical Statement.

Tanzia Sultana

Abstract

The utilization of mobile finance services has experienced a significant surge in Bangladesh, providing financial services to a considerable number of people who do not have access to banking facilities. This research delves into the impact of mobile financial services on the economy of Bangladesh. The study aims to provide a comprehensive overview of the present state of mobile finance services in the country and identify potential areas for future growth and expansion.

To obtain information on consumer uptake and usage of mobile finance services in Bangladesh, the study would combine primary and secondary sources, including surveys, interviews, and case studies. The socioeconomic and demographic elements that affect the country's adoption of mobile finance services will also be looked at in the study. Additionally, the study will look into how mobile financial services might help low-income individuals lead better lives and how they relate to the fight against poverty.

Additionally, the study will examine the financial advantages and potential disadvantages of mobile finance services. The study will concentrate on how mobile finance services might improve financial inclusion, broaden credit availability, and foster economic growth in Bangladesh. The thesis will also look at how mobile financial services might help increase financial literacy among the populace and raise the GDP of the nation.

In order to ensure that the services are secure and safe for the users, the research will also look at the regulatory structure that oversees mobile finance services in Bangladesh and how it may be improved. The study will also examine the difficulties and chances that the nation's mobile finance service providers face, as well as how to get past them.

Overall, the goal of this thesis is to present a thorough grasp of Bangladesh's mobile banking services as they exist today and to pinpoint areas that can grow and expand in the future. In Bangladesh and other developing nations where mobile banking services are quickly expanding, the research will offer useful information for policymakers, financial institutions, and service providers.

Acknowledgement

Firstly, I pray to the great Allah for whom my thesis has been completed without any major interruption. Secondly, my supervisor Dr. Samina Haque Senior Lecturer, BBS for her kind support and advice in my work. She helped me whenever I needed help.

And finally, to my parents without their support it may not be possible. With their kind support and prayer, I am now on the verge of my graduation.

Tanzia Sultana

Table of Content

Chapter-01: Introduction	1-4
1.1 Background & Objective of Research	1
1.2 Literature Review	1
1.3 Research Question	2
1.4 Research Methodology	3
Chapter-02: Concept of Mobile Financing and it's Components	5-9
2.1 Mobile Financing Sector in Bangladesh	5
2.2 Stakeholders and their expectation in Mobile Financial Services	6
2.3 Limitations of the stakeholders	9
Chapter-03: Overview of MFS providers in Bangladesh	10-20
3.1 Current market share of the MFS providers	12
3.2 Macroeconomic Overview	14
3.3 Behavioral Intention of consumers to use MFS	16
Chapter-04: MFS as a Major Element of Our Digital Economy	19-21
Chapter-05: Findings	22-26
Chapter-06: Recommendations & Conclusion	27-30
6.1 Recommendations	27
6.2 Conclusion	29
References	31

List of Tables

Table-1: Name of Mobile Finance Services in Bangladesh.....	11
---	----

List of Figures

Figure-01: Existing services provided by MFS providers in Bangladesh.....	6
Figure 02: Leading MFS Market share	12
Figure 03: Active Customer Trend	13
Figure 04: Socio-economic aspect of urban and rural area.....	15
Figure 05: Behavioral matrix of consumers using MFS.....	16

Chapter-01: Introduction

1.1 Background and Objective of Research:

As per Bangladesh Bank's definition of Mobile Financial Services (MFS), a strategy for providing banking and mobile wireless services that allows users to conduct transactions easily and conveniently is a great way to help customers. This refers to the ability to add money to an account, take money out, and send or receive money through a mobile phone. It is a method of providing banking services that allow customers to conduct financial transactions is known as mobile financial services. The process of transacting via mobile is simple and affordable. Several banks which are operating in Bangladesh offer their financial services through mobile technology, which is very useful for clients (Anwarul and Salma, 2003). The study will be focused on the growth of the MFS market in the financial sector by interviewing users, agents and service providers. The following objectives are identified for this research purpose:

1. The vital objective of the study is to explore the MFS growth and impact in the financial sector of Bangladesh.
2. The dependencies in day-to-day life between customers, agents & service provider

1.2 Literature Review:

A method of providing financial services to customers to maintain their banking transactions without physically visiting any bank branches and with the use of a wireless mobile network is known as mobile financial services (MFS). One of the most important worldwide phenomenon that is being shaped by new technological advancements and the influence of financial institutions is MFS. Mobile financial services (MFS) is a business model that offers accessible and technologically advanced financial services. By incorporating technologies like blockchain and data science, MFS aims to make financial processes faster, safer, and more efficient.

In Bangladesh, where a large portion of the population lacked access to banking services, MFS presented a significant opportunity for commercial banks. Dutch Bangla Bank Ltd (DBBL) was one of the first commercial banks to launch MFS in 2011, leading to rapid growth in the industry. As of 2014, at least 15 other commercial banks had started offering MFS services, with over 13.2 million registered users performing monthly transactions of over TK66 billion through 182,000 agents across the country. Despite some infrastructural and regulatory obstacles, the Bangladesh government and banking industry have shown dedication to modernizing the payment system and expanding the use of e-banking. Currently, Bkash, a joint venture between BRAC Bank Limited in Bangladesh and Money in Motion LLC in the United States, leads the MFS industry with a 48% market share. The International Finance Corporation (IFC) and the Bill and Melinda Gates Foundation have also invested in the development of MFS in Bangladesh.

1.3 Research Question (s):

Considering the above discussion, my work aims to contribute to the process of more accurately documenting how mobile finance services plays a great impact on economic development of our country. My research will address the following research questions: In this study, the first focus will be identified the most relevant part of MFS by questioning “Who is the major stakeholder of Mobile Finance Servicers?” By segregating customer, agent & service provider is the major stakeholder of MFS the upcoming question will be “Which MFS operator is most popular among the customer & why?” Using Likert chart based on the different feature of MFS & measuring the service satisfaction from customer. From the agent side the question will be asked “How they ensure the security of this financial transaction & if they suggest any additional services need to include for better development in this financial sector?” It will be conducted as in same procedure following customers.

Another important part of this study is to understand the impact of MFS in their day to activities (from both customer & agent). Considering the income, geographic area a

sampling-based questionnaire will be asked & it will be presented through some comparison charts.

In the last part this study will focus “What are the basic differences brought by MFS to Traditional Banking services. This data will be collected through secondary data collection.

1.4 Research Methodology:

Methodology refers to a set of general principles or guidelines that can be used to develop specific methods or procedures for addressing various problems within a particular field of study. The purpose of this study is to examine the effects of mobile financial services on the economy of Bangladesh. Data will be collected from individuals of different ages and analyzed according to the study's objectives. Several methods can be used to gather this information, but for this study, the survey method will be employed. The research methodology will focus on the following areas:

- ❖ **Research Design:** The research will be designed in a descriptive format, with a qualitative perspective. Data will be collected through a survey, which will focus on establishing a relationship between basic information such as gender and income level, with perceptions related to quality, cost, and distribution.
- ❖ **Population & Geo- Location:** User of mobile finance services increased a lot. For my research I will survey in Dhaka, Barisal, Comilla to collect my sample data.
- ❖ **Sampling frame:** I will select the different types of user who has used any mobile finance service at least once as well the agents & service providers.
- ❖ **Sample Size:** I will conduct a survey that will involve 100 customers and 50 agents. In addition, I will communicate with employees from the top 10 mobile finance service providers.
- ❖ **Sampling technique:** For sampling, I will use the convenience sampling technique and randomly select respondents. I will conduct interviews at three

different locations where mobile finance service agents operate and survey the customers who use their services.

- ❖ Sources of Data: To conduct the research, I will utilize both primary and secondary data. Secondary data will be obtained from existing studies such as newspaper articles and journal papers published in the current timeline. Primary data will be collected through the proposed research survey.

Chapter-02: Concept of Mobile Financing and It's Components

In the early 2000s, mobile phones became the primary mode of communication in developing countries like Bangladesh. While banking through mobile phones had been prevalent in developed countries for a while, the banking industry in Bangladesh has had to embrace technological advancements due to the emergence of an information-driven economy.

The advent of advanced technology has led to the development of a financial system that is faster, more inclusive, and easier to use. Mobile phones, a significant invention in the realm of new technology, have gained widespread acceptance across the globe. They offer a unique opportunity to participate in the financial system by providing various financial services in a simple and hassle-free manner. These services are known as Mobile Financial Services and are distinct from the traditional concept of SMS banking as they use new procedures to provide a range of services.

Mobile Financial Services (MFS) is a financial system that combines banking and mobile wireless networks to provide services to users. This innovative service has been introduced by many financial institutions to make life more convenient and comfortable by utilizing modern technology. Although it is a fairly new concept in Bangladesh, Bkash has successfully offered better services since 2011, even though DBBL was the first to enter this market. Although there are other financial service providers, they are not as prominent in the marketplace.

As per the report by Bangladesh Bank in 2012, mobile financial services refer to a method of providing financial services that integrates banking with mobile wireless networks. This approach assists customers in performing various banking transactions, including depositing and withdrawing money, as well as sending or receiving funds from a mobile account. Typically, these services are facilitated by bank agents who allow mobile account holders to carry out transactions at agent locations outside of bank branches.

2.1 Mobile Financing Sector in Bangladesh:

Out of the 7 billion people in the world, around 6 billion use mobile phones, but only 2 billion have bank accounts. In societies where people have more mobile phones than bank accounts, mobile financial services could be a good way to promote financial inclusion. The use of mobile

phones in banking can help expand financial inclusion beyond traditional bank account-based services. This concept has been implemented in Bangladesh's banking sector alongside traditional banking services and has received an excellent response. As of March 2019, the number of mobile banking users in the country was 67.54 million.

According to the above analysis, as of December 2014, Bangladesh Bank had approved 28 banks to offer mobile banking services. Among these, 19 banks had already launched mobile financial services. Presently, 16 banks are providing mobile banking services. As of December 2019, the number of registered clients has increased to 79.51 million from 25.19 million in December 2014. However, out of the registered clients, only 34.65 million accounts are active, which is less than half of the registered clients. In December 2019, the total number of transactions and the amount of total transactions stood at 227.42 million and BDT 406,476.40 million respectively.

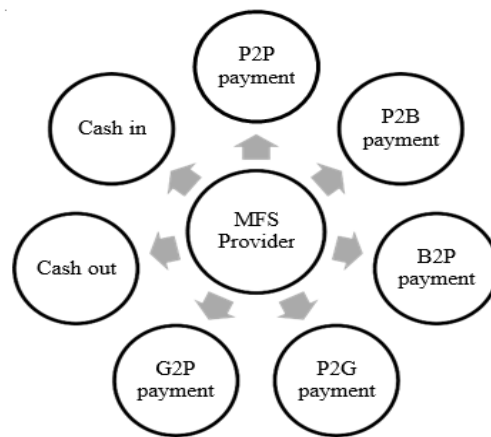


Figure-01: Existing services provided by MFS providers in Bangladesh

2.2 Stakeholders and their Expectation from MFS

The significance of mobile financial services is on the rise in all sectors due to recent advancements in mobile technology and increased awareness among the general population. Many parties are showing interest in this area because of its potential to facilitate transfers and promote financial inclusion worldwide.

Stakeholders are as follows

- a) Consumers
- b) Merchants
- c) Mobile Network operators
- d) Mobile device manufacturers
- e) Financial institutions and banks
- f) Software and technology providers
- g) Government

Consumers.

Mobile banking services are offered to cater to the needs of busy individuals, including bank clients. Banks are always looking for ways to introduce services that can save clients' time and money, provide quick responses, and satisfy their customers. These reasons are the primary drivers that prompt banks to offer mobile financial services. Below are the main expectations of customers who use and adopt mobile banking services:

Merchants

Merchants are a crucial part of the customer interaction process and play a significant role in expanding the mobile banking services. The higher the number of merchants who support and promote the services, the greater the adoption and growth of this sector can be. Merchants have certain expectations, such as fast transaction times, low or zero costs associated with using and setting up the system, and high levels of security.

Telecom Network Providers

The telecom network providers also have expectations from the mobile financial services industry, with the primary expectation being generating income and increasing traffic. They also expect to partner with content providers to ensure a sustainable income flow and customer loyalty.

Mobile Device Manufacturers

Mobile communication technologies have evolved rapidly from SMS-based services to instant application-based services. Previously, customers' use of mobile devices was limited by the devices' capabilities. Manufacturers now aim for large market adoption of embedded mobile payment applications, which can increase their profitability and stability through a low time-to-market adoption and an increase in average revenue per user. The following are the major expectations of mobile device manufacturers from the mobile financial service sector:

Banks

Banks and customers both aim to minimize costs. Studies have shown that banks' operating expenses have increased, leading to additional fees, which are reasonable in most cases, as 83.33% of banks charge less than 1,000 taka per year. Trust Bank's fee structure depends on certain factors and could not be determined. Furthermore, previous research has demonstrated that the number of customers in selected banks has increased since the introduction of mobile banking services, even though these services are relatively new and not all services are available yet.

Software and technology providers

The providers of mobile software and technology, also known as mobile banking vendors, have often been the driving force in promoting the adoption of mobile banking services and convincing other stakeholders of its benefits. Despite facing resistance from the banking industry, these early pioneers have persisted in promoting mobile banking and have played a crucial role in influencing the industry's decision-making. However, in recent times, they have become not only major influencers but also essential security managers for both banks and consumers.

Government

The government has a responsibility to monitor and regulate the mobile banking industry, and it has certain expectations from the industry. These expectations include generating revenue through taxation of mobile payments, enforcing standards in the mobile banking industry, and facilitating the disbursement of government allowances to both rural and urban populations.

2.3 Limitation of The Stakeholders:

Consumer Literacy and Awareness

The level of consumer education and awareness is crucial for the adoption of mobile banking and mobile financial services. In Bangladesh, our survey revealed that 56% of households lack awareness and literacy about these services, despite the widespread availability of mobile phones. Many consumers have a limited understanding of the capabilities of mobile financial services, with some believing that they can only be used for simple P2P transfers and not for more advanced functions like bill payments or savings. Additionally, some customers find the service fees charged by mobile financial service operators to be too high. These findings highlight the need for greater consumer education and awareness.

Security and Efficiency

Ensuring security and efficiency remains a challenge in the mobile money industry. In the USA, more than half of the adult population has safety concerns about using mobile money. Therefore, in Bangladesh, it is necessary to adopt an individual approach when selecting clients or subscribers.

Limited Competition in Mobile Financial Services

Numerous banks and mobile companies are present in the market providing mobile financial services. Despite 28 banks being licensed to offer MFS and 18 banks launching their services, only two providers (Bkash and ROCKET) have acquired the biggest market share.

Chapter-03: Overview of MFS Providers in Bangladesh

Mobile Financial Services (MFS) are currently the most rapidly growing financial technology embodiment, particularly in Bangladesh. MFS plays an essential role in facilitating financial transactions for people of all classes and professions. Mobile account holders can transact with agents outside of bank facilities for services such as Cash In/Out at Agent Point, Cash Out at ATM, Balance Inquiry, Airtime Purchase, Utility Bill Payment, P2P Fund Transfer, P2B Payment, B2P Fund Transfer, G2P Fund Transfer, Merchant Payment by Customer, Inward Foreign Remittance Disbursement, Wallet Activation, Bank Account to MFS Wallet Fund Transfer, MFS Wallet to Bank Account Fund Transfer, Fund Transfer from Card to MFS Wallet, Mini Statement Collection, and more.

Bangladesh currently has 61 banks with 10,467 locations, and mobile financial services were launched by three private banks in 2011, including Dutch Bangla Bank Limited (DBBL), BRAC Bank Limited, and Trust Bank Limited. Among them, bKash and DBBL Mobile Banking (now "Rocket") have become popular MFS in a short time. Additionally, Nagad, a Digital Financial Service (DFS) of Bangladesh Post Office (BPO), is successfully providing MFS throughout the country with minimum costing. Since the launch of these services, financial inclusion in Bangladesh has been increasing significantly, especially after 2013, although the use of MFS is still limited to Cash in/out transactions, P2P transactions, airtime purchases, online purchases, and certain bill payments.

While there are 16 MFS providers in Bangladesh, bKash and Nagad dominate the sector with the largest market share. All MFS providers have mobile apps with various features available to their users, and they can also access services through USSD codes. MFS is a technique that combines banking with mobile wireless networks, allowing users to move money or funds between their mobile accounts.

SI No.	Name of the Mobile Financial Service	Name of Bank Providing MFS
1	bKash	BRAC Bank Limited
2	Rocket	Dutch Bangla Bank limited

SI No.	Name of the Mobile Financial Service	Name of Bank Providing MFS
3	mCash	Islami Bank Bangladesh Limited
4	MY Cash	Merchantile Bank Limited
5	T cash	Trust Bank Limited
6	FirstPay Sure Cash	First Security Islami Bank Limited
7	U Cash	United Commercial bank Limited
8	OK wallet	One bank Limited
9	Sure cash	Rupali bank limited
10	TeleCash	Southeast Bank Limited
11	BCB Sure Cash	Bangladesh Commerce Bank Limited
12	Jamuna Bank Sure Cash	Jamuna Bank Limited
13	Islamic Wallet	Al-Arafah Islami Bank Limited
14	Spot Cash	Standard Bank Limited
15	Tap' n Pay	Meghna Bank Limited
16	Sonali e wallet	Sonali Bank Limited
17	Hello	Bank Asia Limited
18	Nagad	Bangladesh Post Office

Table 01: Name of Mobile Finance Services in Bangladesh

3.1 Current Market Share of MFS Providers:

The Mobile Financial Services (MFS) industry in Bangladesh is growing rapidly due to increased access to digital financial products and services. As of July 2022, there were 13 MFS providers in Bangladesh with over 181 million accounts, which is a 16% increase from the previous year. The MFS industry has played a significant role in enhancing financial inclusion and facilitating transactions, especially during and after the COVID-19 pandemic, and has had a positive impact on the country's economy and financial activities.

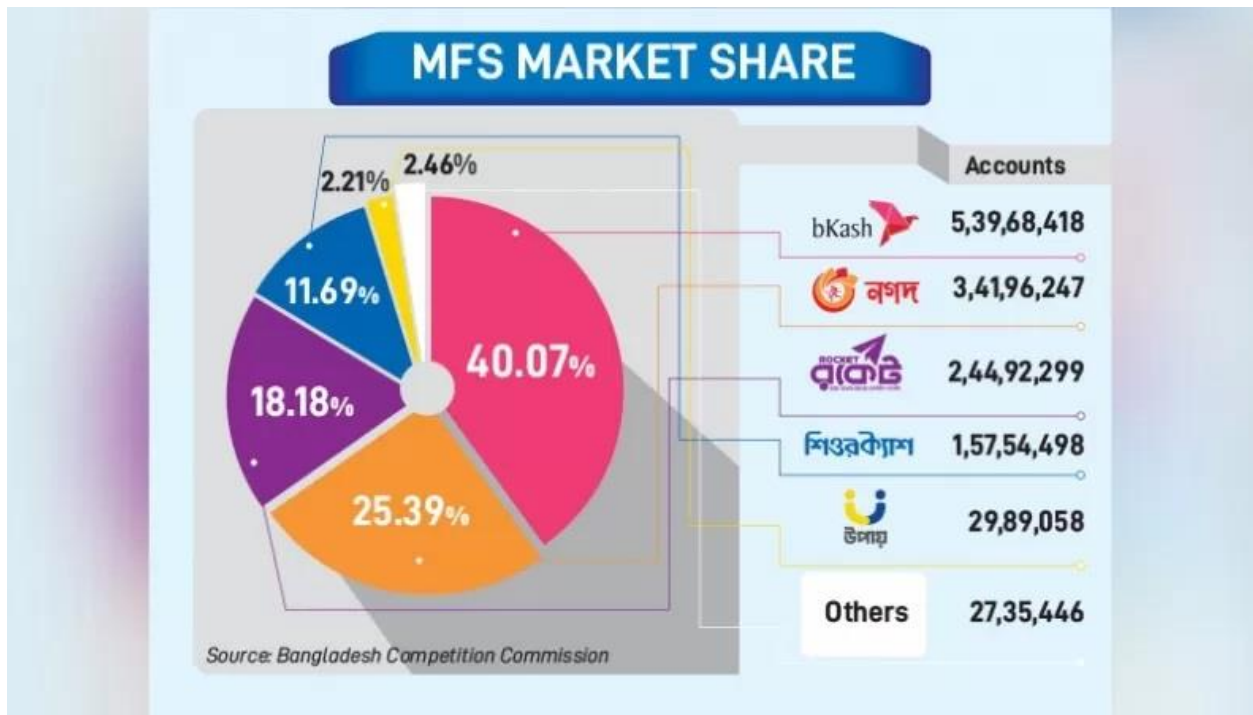


Figure 02: Leading MFS Market share (source: Bangladesh Bank)

The Bangladesh Bank has been granting licenses for Mobile Financial Services (MFS) to integrate individuals without bank accounts into the formal financial system. MFS is attractive to government entities due to its multi-dimensional effects and revenue-generating capabilities. The growth of the MFS industry has been positively impacted by factors such as the tech-savvy

population, mobile connectivity, and internet penetration since its inception. According to Bangladesh Bank reports, MFS transaction value increased by 30% in FY 2022, rising to Tk9,900 billion from Tk7,595.6 billion in FY2021. There are 1.53 million MFS agents throughout Bangladesh. bKash, Nagad, Rocket, and SureCash are the top MFS providers with a market share of 39.9%, 18.1%, and 11.7%, respectively. MFS customers use the service for a range of financial operations, including bill payments, financial transactions, and more. This rapid increase in clientele has enabled MFS to expand its offerings and better serve its customers. Based on these statistics, it seems that companies in this industry are thriving and generating sustainable profits.

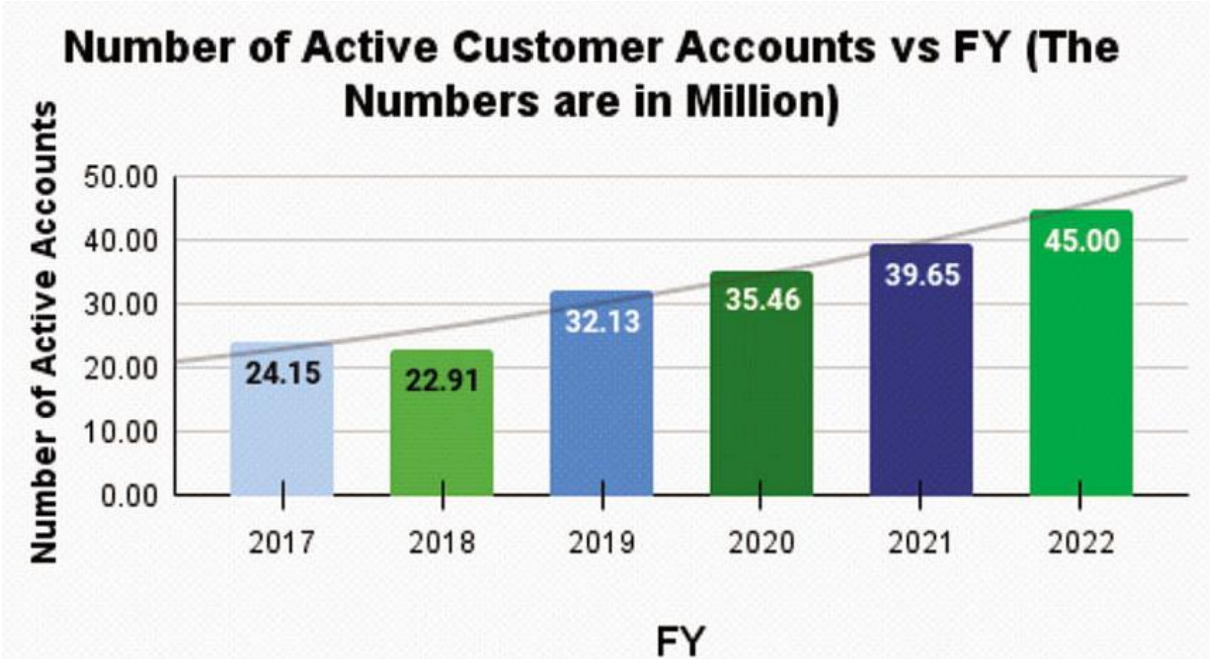


Figure 03: Active Customer Trend (source: Bangladesh Bank)

However, the question remains whether these companies can maintain their operations in the long run, despite their recent financial performance. For instance, bKash, the largest MFS provider in Bangladesh, has incurred losses for the last three years, with losses of BDT 625 million, BDT 814 million, and BDT 1,234.2 million in 2019, 2020, and 2021, respectively. The company has invested heavily in technology and customer acquisition, which has affected their profitability. The officials of bKash have claimed that they are investing in new technology and

solutions to meet rising demand and trying to solve issues faced by customers, such as fraudulence, server issues, cybercrime, and account hacks. They are establishing strong AML/CFT to provide more secure services to customers. Despite a few exceptions, most other MFS providers in Bangladesh face similar challenges.

Undoubtedly, bKash and Nagad are the leading players in the MFS industry, offering a wide range of services to their clients. In fact, over 60% of all MFS transactions in Bangladesh are conducted through bKash, and more than 70% of active clients have accounts with the company. Furthermore, bKash generates more than 70% of the sector's revenue. This makes it clear that other players in the industry, such as Rocket, SureCash, MCash, and Upay, are struggling to maintain a significant position in the market. As a result, some smaller players may soon be forced out of business. The monopolistic or oligopolistic nature of the industry creates obstacles for both existing and new players. Given bKash's powerful market influence, it may be time for the central bank to introduce "Significant Market Power" guidelines for the MFS industry, as was done for Grameen Phone in 2020. This could help to prevent monopolies and encourage healthy competition, benefiting both small and large players. If SMP is not the optimal solution, a merger could also be considered. Companies falling behind in the competition may need a diagnostic to determine why this is the case and what customers expect from them.

3.2 Macroeconomic Overview:

Bangladesh is one of the most densely populated countries globally, with a landmass of 147,570 square kilometers and a population of almost 156 million. The country's economy has grown by around 6% per year over the past decade, and as a result, human development has also improved. This has led to a decrease in poverty by almost one-third, increased life expectancy, literacy rates, and per capita food intake. While there has been a significant reduction in poverty in both urban and rural areas, many people are still living below the poverty line. Around 47 million people are living below the poverty line, which means they survive on less than \$2 per day. This is primarily a rural problem as 67% of Bangladesh's population live in rural areas, although a significant portion of the poor are in urban areas. There is a noticeable gap between the urban and rural areas in terms of socio-economic aspects as shown in the chart below.

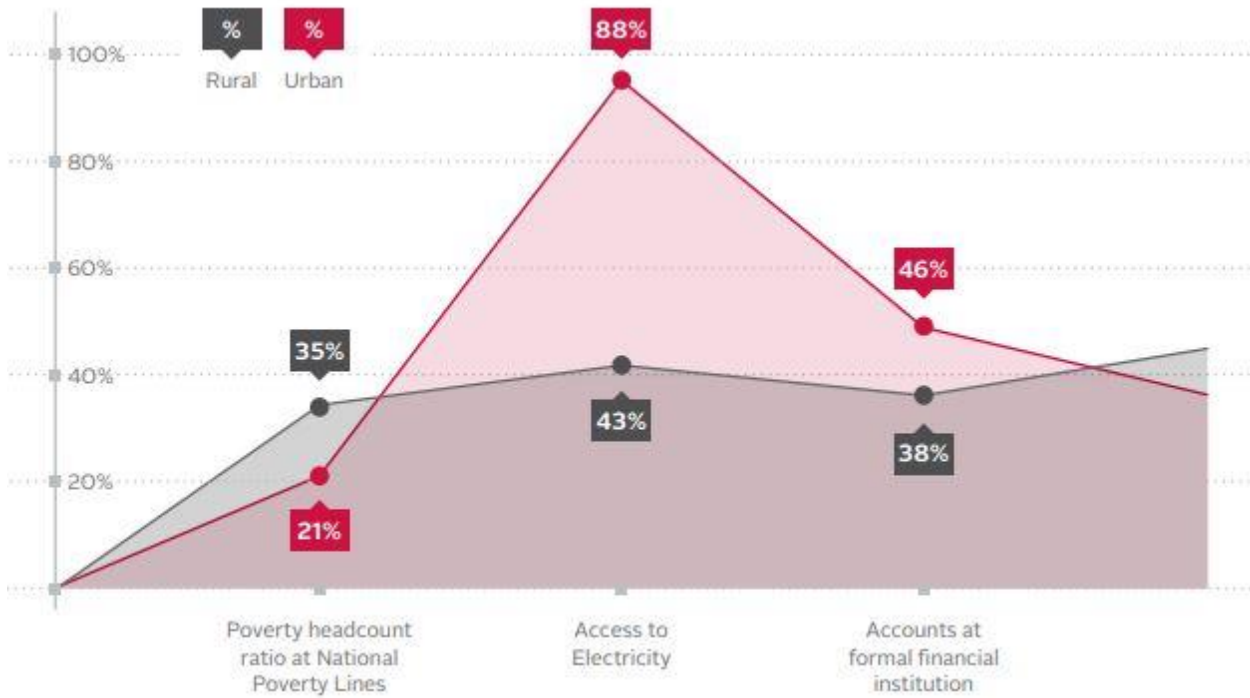


Figure 04: Socio-economic aspect of urban and rural area

Even though agriculture only contributes to approximately 17% of the country's GDP, almost half of Bangladesh's labor force is involved in agriculture, while another 40% is engaged in services and 17% in industry, mainly from the ready-made garment sector. Despite the relatively low unemployment rate, about 40% of the population is believed to be underemployed. Although Bangladeshi outward migration has reduced since its peak of around 875,000 in 2008, cash remittances from migrant workers continue to be a significant contributor to the country's economy. Bangladeshi diaspora remittance inflows have increased at an annual rate of double digits since the 1980s and averaged around 11% of GDP in recent years, which is substantially greater than the average of approximately 7.1% in other Asian nations. Bangladesh recorded a record high of USD 14.5 billion in remittance inflows in FY13, which ended in June 2013.

3.3 Behavioral Intension of Consumers to Use MFS:

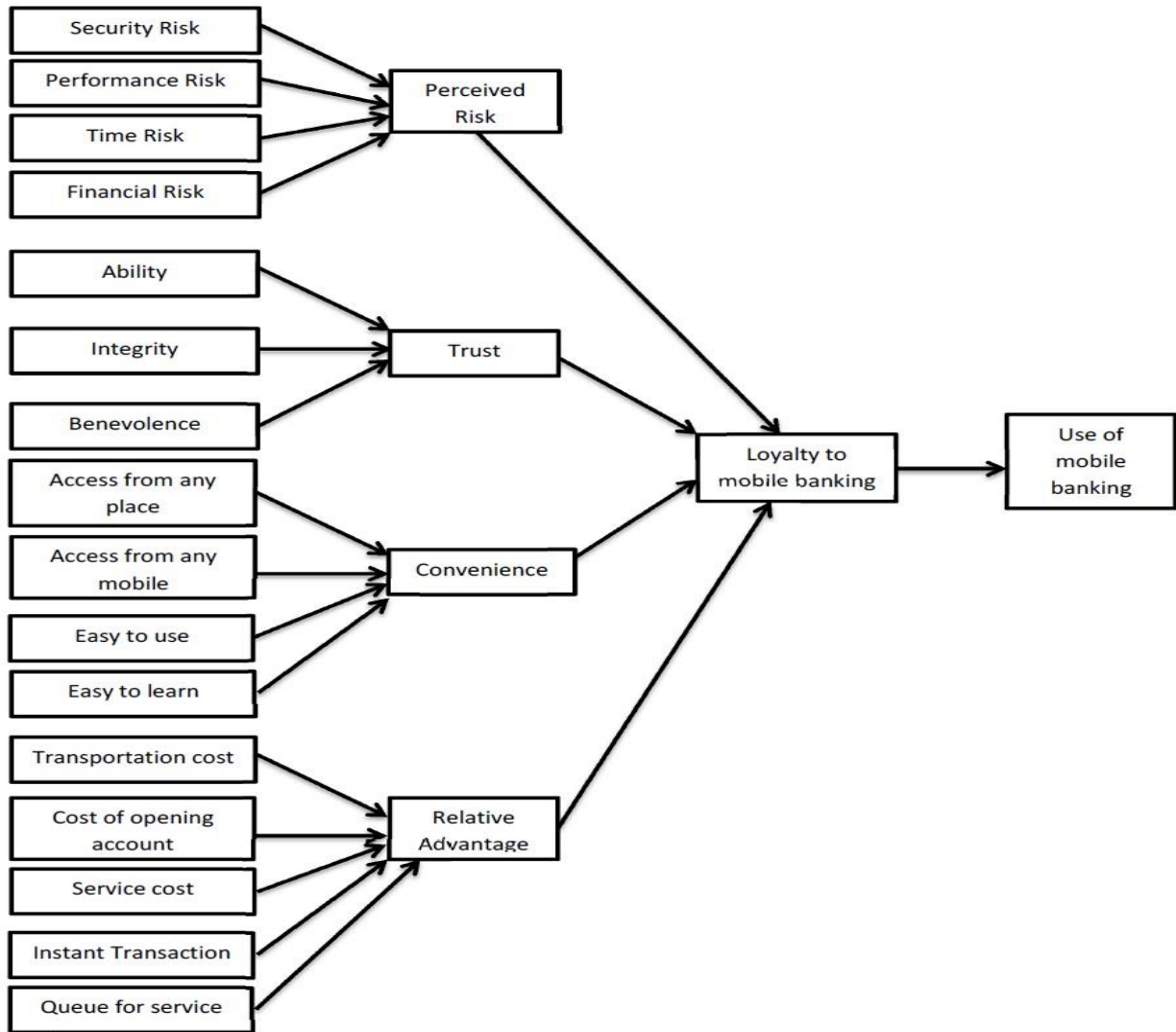


Figure 05: Behavioral matrix of consumers using MFS

Perceived Risk:

The different types of risk that mobile banking may encounter include performance risk, security/privacy risk, time risk, and financial risk. These risks can be described as follows:

- a) Performance risk: This refers to losses that may be incurred due to deficiencies or malfunctions of mobile banking servers.

b) Security/privacy risk: It refers to the potential loss that may occur due to fraud or a hacker compromising the security of a mobile banking user.

c) Time risk: This refers to the loss of time and inconvenience that may be incurred due to delays in receiving payments or difficulties in navigating the mobile banking platform.

d) Financial risk: It refers to the potential for monetary loss due to transaction errors or misuse of bank accounts.

Trust:

The concept of trust in mobile banking can be broken down into three elements: ability, integrity, and benevolence. To evaluate trust, three perspectives need to be considered, namely the bank, the mobile network provider, and the wireless infrastructure. These dimensions can be explained as follows:

a) Ability: This dimension concerns the user's perception of the mobile banking service provider's capability and expertise in delivering the expected service.

b) Integrity: This element pertains to the user's trust in the service provider's fairness, honesty, and adherence to reasonable transactional conditions.

c) Benevolence: This dimension is about the extent to which the service provider demonstrates receptivity and empathy towards users. The provider is expected to make a good faith effort to resolve users' concerns and to act in the user's best interest beyond mere profit motives.

Convenience:

Mobile banking's ability to meet the needs of its users is referred to as 'perceived usefulness.' This includes two aspects: the ability to access mobile banking services from any location and through any mobile device. 'Perceived ease of use' is another aspect, defined as the user's belief that using the system will require minimal effort. This includes an easy-to-use mobile banking interface on a mobile device and simple procedures for learning about the mobile banking system.

Relative Advantage:

relative advantage" refers to the benefits that a user of mobile banking can receive that they cannot get from traditional banking services such as ATMs or non-mobile internet banking. According to Pikkarainen et al. (2004), users are more likely to adopt mobile banking if they believe that it provides more advantages compared to other channels. This advantage can be measured in terms of perceived cost and time savings. Perceived cost savings refer to the transaction cost of conducting mobile banking transactions, including airtime and bank charges. The cost may include the transactional cost in the form of bank charges, mobile network charges for sending communication traffic (including SMS or data), and mobile device costs.

b) "Perceived Time Saving" refers to the perception of users regarding the amount of time needed to complete a mobile banking transaction. The time factor is a crucial consideration in the adoption of mobile banking services. This dimension can be described as follows:

- Instant Transaction: Users' perception of whether mobile banking transactions can be conducted immediately or not.
- Wait Time for Service: Users' perception of whether there is a queue to obtain mobile banking services.

Chapter-04: MFS as a Major Element of Our Digital Economy

Over a decade ago, the government of Bangladesh unveiled Vision 2021, also called Digital Bangladesh, as a socio-economic development goal for the nation's long-term. Since then, the government has taken various measures to achieve this objective. One of these measures includes the granting of licenses for Mobile Financial Services (MFS) by Bangladesh Bank. This was done with the aim of enhancing financial intermediation, fostering economic development, and integrating the unbanked population into the formal financial system.

The conventional way of transferring money is being transformed by Mobile Financial Services (MFS), which has gained widespread acceptance due to its ease of use and secure payment system. The growth of the MFS sector has been aided by advancements in technology, mobile connectivity, and internet density since its inception.

According to a report by the Daily Star in July 2021, the number of registered MFS customers in Bangladesh was 10.27 million, which shows a 159% increase in the last four years. The total monthly transactions through MFS in July amounted to 32.64 million euros. The country has undergone significant digitization in recent years, which is transforming its socioeconomic conditions and pushing it towards a digital era. MFS providers have played a crucial role in this transition, and Bangladesh has made significant progress in financial inclusion with MFS being a major contributor. The percentage of financially included people rose from 20% in 2013 to 55% in 2019, and the e-commerce sector has expanded beyond expectations alongside the growth of digital payments.

The MFS platform, coupled with easy-to-use digital payment gateways and the widespread use of the internet, has contributed to the growth of retail e-commerce, which has seen a monthly average growth rate of 72% since January 2020. It is projected to reach Tk 25,500 crore by 2023.

Dissatisfaction with paper currency has several small and big benefits, including making life more convenient and reducing the cost of producing currency. Bangladesh's economy has been aided by the steady growth of digital payments in recent years. According to the statistics of Bangladesh Bank, the number of monthly transactions has increased by more than 50%, from Tk 41,403 in August of last year to Tk 62,230 in August of this year.

The Economist published a popular article in 2017 claiming that data has taken over oil as the world's most valuable resource. Data is the cornerstone of the digital economy, and in Bangladesh, MFS is a critical source of economic statistics.

The decisions made by leaders in the public and private sectors are based on information. The data of 10.27 million customers' event trends and volumes can be a valuable source of information for disaster and pandemic relief, as well as the implementation of government safety nets, social security, and other development programs, by using artificial intelligence and machine learning technology.

The government's decision to disburse funds through the MFS as part of its social safety net measures will result in more unbanked individuals joining the official financial system. This decision will also ensure faster implementation and greater transparency. Currently, over 125 social protection programs are housed within 20 ministries and organizations in Bangladesh. The government has allocated Tk 95,570 million for social insurance for the current fiscal year.

The government's goal of providing rewards digitally instead of in cash has received significant support from the MFS sector. A crucial example is the elementary school scholarship program, which continues to be widely used. Through MFS, the government offers scholarships of 4,000 Tk to around 13 million primary school students.

During the pandemic, the use of MFS in the education sector has increased significantly, from paying salaries to covering college and tuition fees. This has had a direct impact on the changing nature of digital education. Over the past four years, the number of remittances received through MFS has risen by 3,569%, which is 4,444 times more than the initial amount. Recently, Bangladesh achieved its first blockchain-based cross-border money transfer service, thanks to collaboration between Standard Chartered Bank, bKash of Bangladesh, and Valyou of Malaysia.

MFS is also gaining popularity for online bill payments, with data showing a substantial increase in the total amount of bills paid in August compared to September 2016.

The MFS program has led to an increase in spending among traders, with the amount spent tripling to Tk 3,465 million in August from Tk 1,062 million the previous year, and wages paid under the program almost quadrupling to Tk 1,903 million from Tk 1,063 million. In

Bangladesh, due to challenging conditions and long delivery times, people sometimes have to borrow from unofficial sources to meet their urgent needs. Recently, City Bank and bKash began a trial program for digital financing to address this issue.

The process of applying for a loan is no longer entirely physical for loan applicants, which can transform the lives of microentrepreneurs, students, and the underprivileged by providing them with access to the funds they need. Furthermore, several financial institutions use the MFS to collect loan and pension contributions, while insurance companies are now focusing on digital technologies to improve consumer payment experiences and speed up collections.

The government's recent proposal to allow microbusinesses to take online payments is a significant step forward for the digital economy. Analysts argue that a cashless society is essential for sustainable economic growth, and initiatives to promote digital financial literacy and digital finance have already been implemented by the government and businesses, providing hope for a brighter future. This will contribute to the country's two main goals of becoming a middle-income nation by 2031 and a developed country by 2041.

Chapter-05: Findings

- **Financial services accessibility:**

In our study, we discovered that the majority of the respondents lacked a bank account. This was something we anticipated because, as of 2018, 53% of Bangladesh's working population does not have a bank, mobile money, or other non-bank financial institution account. This has historically been a persistent issue in Bangladesh's banking industry. Nonetheless, this issue gives MFS the chance to offer financial services accessibility, enabling MFS users to enter and interact with the intricate financial services ecosystem. Many of the necessary financial transactions, according to our respondents, may be completed using MFS even if they don't have a bank account. 4,444 Our respondents employ a variety of application strategies to take advantage of this benefit, including learning more about MFS, weighing the advantages and disadvantages of moving money from a carrier, and creating personal accounts since they might not be able to locate an agent in an emergency. Applications for MFS may be used without a smartphone. To do business, all you need is a functional phone. The method appears excessively cumbersome to many respondents without bank accounts, who also state that they prefer agents. Several of them acknowledge that they initially utilized MFS in fear because they could not "see the money" because they were terrified. Yet with continued use, they will eventually comply with your wishes.

- **Self-controlling ability:**

We discover that persons outside of banks frequently utilize MFS accounts for savings, indicating that they view MFS as a tool for independence. Many in the survey are concerned that if they keep money at home, it may be either wasted or stolen. In order to cover prospective expenses in the future, such as test or school entry fees—both of which are "once a year" expenses for many of our respondents—they maintain some of their money in the MFS account. This action is not sensible if our responders were rational economic actors. They are certain that these funds are required for upcoming necessary costs. They feel the need to put up some kind of barrier that would prevent them from getting the money quickly. They don't want to keep cash.

Opening a personal account that the respondents may use as a savings account is one of the implementation strategies, despite the fact that the majority of them either are unaware of the interest rate on the balance or do not care about the meager potential interest income. In order to avoid taking money out of their MFS account unless there is an urgent need, respondents also said that they frequently try to forget that they have savings. According to several female respondents, they occasionally keep their spouses or sons in the dark about their savings in the MFS account out of concern that they could be pressured to take the money.

- **Spatial and temporal mobility**

The ability to accomplish geographical and temporal mobility throughout a transaction is one concern that respondents frequently bring up. Typically, banks operate only during specific hours and at a set location. The "Bazar" (local village market), the hub of economic activity in rural regions, is typically where bank branches are found. The key is that the "bazaar" may frequently be found in an area that is far from where many families reside. In order to transfer or receive money, it may be challenging to use banking services. This issue is brought up frequently by respondents, who also describe how MFS allowed them to get around the time and space restrictions put in place by the bank. The social setting must be taken into consideration as well.

Our respondents use interesting application techniques to realize this advantage. They ask family members returning to the villages to try to maintain good relations with the agents, who in many cases are small shop owners or neighbors who have their own cell phone with an MFS account and can afford to get a cell phone network. Thus, family members do not have to go to the bank.

- **Disintermediation ability**

Many respondents mention that using MFS gives them some freedom. In this case, affordability is a trade-off. Most of our respondents do not have a bank account, and according to them, one of the biggest obstacles to opening a bank account is the requirement of various documents, such as an identification card, proof of employment, regular income, minimum balance, service fee, etc. which many of them do not have. Despite having a bank account, some respondents prefer to use MFS to transfer small amounts because it takes enough time to complete banking operations; and it is often difficult for working respondents to find the necessary time. Some point to the problem of signature matching when issuing a check - a

mandatory requirement at banks. Some respondents cannot sign, or even if they can, they do not fit the banks' strict verification process. Some respondents mention that MFS agents often refuse to withdraw small amounts of money, so keeping a personal MFS account is a better option. The above discussion indicates that agency capabilities have two layers of implementation techniques. First, an agent-based system frees them from banks, and second, personal accounts free them from agents.

Some of the respondents who have a bank account say they prefer MFS because it is difficult to send money to villages through banks. Elderly parents often find it difficult to withdraw money because many banks are located far from home. According to respondents, MFS is less time consuming and easier for their parents.

- **Self-sustainability**

The respondents also spoke of the resilience that MFS has given them, which is the capacity to carry out certain duties with little to no assistance from others. Migrant workers who moved to the capital in quest of better chances make up the majority of respondents without a bank account. Formerly, these employees had to beg a villager to give the cash to their family in the form of tea. Of course, the passage of time was uncontrollable. Respondents were totally reliant on others and occasionally had to foot some of the bill for transportation. Some have also had negative occurrences including carriers reporting pickpockets and/or theft or family members not receiving the whole amount. The migrant workers felt unsafe because they had no way to verify these claims and had to rely on what the airline told them.

Many female migrant workers mention that they feel safe because they do not have to go out to use MFS. Most of these women work as domestic workers in relatively wealthy families, doing daily chores and taking care of their employer's children. That is why it is difficult for them to get free time and in some cases permission from their employer to go out and send money either through an acquaintance in the village or through an MFS agent. Many women have come to the capital for the first time and have little knowledge of the area in which they live. They claim that these situations are no longer binding because they can use MFS to trade even indoors.

Because they are frightened of making a mistake, some respondents say that the agent system relieves them of having to manually input the number and place their purchase. In such

circumstances, the incorrect account receives the money transfer. Several of them had this issue and were never reimbursed for their money. Hence, despite the fact that they themselves do not grasp the system, they assert that the agent-based system aids in the completion of transactions.

Some respondents feel that they can do this themselves because they feel safe in the cashless nature of MFS. In Bangladesh, it can be risky to carry money on the road and even keep it at home. Respondents tell us that MFS makes them less likely to be robbed. Some respondents mention that MFS allows for backup in case they forget their wallet at home.

Opening personal accounts and/or establishing positive relationships with agents are two strategies for building trust (since many respondents do not understand a mobile phone, even if it is a basic phone). Family members from the village are likewise urged to keep in touch with any agents or neighbors who have a personal MFS account.

- **Secrecy maintainability**

Our data points to an intriguing prospect of confidentiality. MFS is viewed as a tool by respondents for maintaining the privacy of their transactions and/or funds. Older women most frequently discuss the need to give money to family members secretly, without notifying their spouses or adult children. The fact that the money may be held in their own personal account and that their family members can't take it themselves since they often don't know the PIN gives these ladies a sense of empowerment. According to other replies, they never even told their grown children about their own MFS accounts.

A technique used to implement secretive elections is to have a secret personal account and be careful not to share information about it with others.

- **Networkability**

MFS supports the growth and maintenance of our respondents' social networks, allowing them to send money on a regular basis or in times of need to relatives who reside in far-flung communities and do not have easy access to a bank. We refer to this alternative, which is the online option, as non-network. Our responders often provide all of the family's financial support and send money through MFS on a regular basis. In other instances, they give cash for unexpected expenses like surgery or medical care.

Several respondents mentioned that helping their family members makes them feel good. They are compelled to split their money due to Bangladesh's collectivist mentality. They pay money to their cousins, maternal and paternal uncles, and other relatives in addition to their own family. Many people are glad to do this because they anticipate receiving a future "kindness," or a deed that may be returned. It appears that our respondents intentionally took use of MFS networking opportunities to build social capital.

People have been using their village connections to move money for a long time; MFS only made networking faster and easier. By creating agency or personal accounts, defendants take advantage of this advantage and frequently educate their family members who are not aware with MFS about its advantages. The benefits and associated application strategies are presented in Table 1.

Chapter 06: Recommendations & Conclusion

6.1 Recommendation:

- **Increase awareness of and capacity to use MFS:**

MFS providers ought to think about raising public knowledge of all of their services, not only P2P transfers, in order to market them. In order for agents to effectively instruct clients on how to use their services, they might also need to enhance their agent training programs. To increase awareness of and proficiency with MFS products, they can teach their employees and beneficiaries. It also covers their rights as consumers, understanding of typical pricing (and how to handle agents who try to overcharge them), account security, and the benefits of utilizing MFS outside of withdrawals, withdrawals, and P2P transfers. In addition, special attention should be paid to reporting the actual costs of MFS compared to other means, considering other factors such as travel costs and wasted time. mSTAR helped several USAID IPs conduct this type of cost-benefit analysis, which was useful as evidence for skeptics to understand the true potential of MFS versus cash. A simple starting point for promoting MFS as simply a money transfer mechanism could be to promote its use as a savings tool, especially given the large number of respondents interested in saving. 80% of beneficiaries and 78% of workers were men, whereas 63% and 73% of workers were women. If customers start to see MFS as more than merely a transfer service, this will also aid in lowering the volume of OTC transactions and boosting actual financial inclusion.

- **Expand roll out of MFS products beyond money transfer:**

Mobile credit services are another possibility worth looking into in addition to the expansion of payment alternatives. The general population's limited access to credit from traditional financial institutions and our sample's results point to the potential for credit risk analysis and scoring based on information from mobile phone usage. In several markets throughout the world, this kind of mobile evaluation is already carried out, both by MFS providers directly (such as M-Shwari in Kenya) and by third-party suppliers (e.g. contract). The gap in credit availability in Bangladesh may be closed through the deployment of similar credit assessment services and mobile wallet-based microloan products.

- **Consider gender differences more explicitly:**

Men and women have different levels of access to mobile phones and MFS. Women have less access to financial services and mobile phones in Bangladesh. 62% of those without a bank account but with a cell phone are female. This suggests a significant chance to improve women's financial inclusion, particularly through multilateral financial assistance. User-centered design may help service providers solve these issues in part by creating marketing campaigns and products that are more suited to the requirements of women. For instance, in order to boost the value of account creation, service providers should look into ways to advertise MFS as being safer and more convenient than cash for payments that women frequently make, including those for school tuition. Service providers may create training programs and materials for digital financial literacy that target women in particular, as Axis Bank and Airtel Money have in India. Also, hiring female representatives may encourage more women to use these services.

- **Provide better local language access:**

Considering that most MFS menus are currently only available in English and most Bangladeshis cannot read or even speak English, developing a USSD menu in Bangla is necessary. But even that is not enough because more than 40% of adults in Bangladesh are also illiterate in Bangla. Therefore, service providers may also consider offering interactive voice response (IVR) menus that customers can use for their account. As more Bangladeshis gain access to smartphones, MFS providers may begin offering apps that can easily integrate Bangla, audio and visual icons, all to facilitate illiterate users, though that will likely be a few years away.

- **Make good regulations even better:**

While Bangladesh's current MFS regulations have enabled an environment that has been conducive to the growth of MFS, our discussions with service providers and users indicate a number of areas where the regulations can be further improved. Allowing a tiered KYC system, where low-value accounts require less documentation than higher-value accounts, could encourage the opening of MFS accounts, especially at the bottom of the pyramid. The creation of a national KYC database containing relevant national ID database information can speed up the KYC process by allowing MFS providers faster access to information needed to authenticate clients. MFS providers should also have the ability to check if another provider has already

verified an individual through the KYC process so that they can verify accounts immediately in such cases.

Finally, some of the challenges associated with MFS providers' reliance on mobile channels such as USSD may require continued coordination between Bangladesh Bank and the Bangladesh Telecommunication Regulatory Commission to ensure that the concerns of both parties are properly addressed. in a way that maximizes the quality and reliability of MFS products in Bangladesh.

- **Improve functionality of MFS records:**

The absence of readily accessible transaction data is one of the issues raised by financial staff and beneficiaries. Receiving individual SMS confirmations in English following each transaction makes it challenging for high-volume users, especially those with poor English proficiency, to trace transaction history for beneficiaries, especially those who use MFS for their company.

Most service providers still follow a somewhat manual procedure for handling business accounts, sending transaction reports through email after processing. The finance team is not always informed of these reports right away. It would be easier for financial personnel to embrace a new system if it were automated, web-based, and provided fast confirmation and easy access to payment history instead of requiring them to scan several PDF files. and (often overlooked) audit compliance problems. Although most MFS providers have declared plans to install such systems, they are not yet generally accessible.

6.2 Conclusion:

A more inclusive society is produced when financial inclusion is ensured. The academic discussion in the area of business and economic studies is very interested in the economic expansion of digital technology. In recent years, scholars and policymakers have become interested in new digital financial services as a potential means of advancing financial inclusion. Financial systems have been made more accessible in particular by digital payment technologies, the usage of digital platforms, and online money transfer systems linked with mobile phone technology. Using and implementing digital services may affect and shape daily economic activities that may aid in society's economic development. In many developing countries,

financial inclusion appears to be a potential agent of change that can lead to poverty reduction and ensure a more financially inclusive society. In this regard, commercial banks in Bangladesh have invested heavily in technology infrastructure to achieve efficient transaction flow, better access to customers and quality products and services. Although financial inclusion is often seen as a key to development, Bangladesh continues to lag behind in the broader context of access to financial institutions. The World Bank Group (WBG) has recognized Bangladesh through the Global Financial Access Framework (UFA) as one of the 25 countries where 73% of economically excluded people live globally. A recent study by Financial Inclusion Insights (FII) in Bangladesh shows that 47% of the population is financially included through mobile money 17%, Banks 5% and non-bank financial institutions 23%. It also reveals that less than a third of women 32% use digital payment, compared to 56% of men.

Despite the financial sector's rapid expansion, few studies have attempted to investigate the possible motivators and difficulties of digital methods to financial inclusion. A new business phenomena and their approach to entering the Bangladeshi market are being created by mobile banking and digital financial services, such as bKash. The concept of digital inclusion is noticeably lacking from the government's digital programs and policy plans, according to Bangladesh's Information and Communication (ICT) strategy. As a result, it is unknown if digital services and financial technology (fintech) will guarantee financial inclusion in rural Bangladesh. Rural residents cannot become financially included in the digital economy by using digital services unless they have access to digital equipment and supporting social environments.

References:

- I. Akhter N. and Khalily B., (2017). An Analysis of Mobile Financial Services and Financial Inclusion in Bangladesh DOI:10.1177/0973703020946706
- II. Islam, M. and Hossain, S., (2018). Creating shared value through mobile financial services in Bangladesh. International Journal of Development and Sustainability, ISSN: 2186-8662.
- III. Bangladesh Bank, 2018. Bangladesh Mobile Financial Services (MFS) Regulations, 2018. Payment Systems Department, Bangladesh Bank
- IV. Nabi, M., Talukder, M., Saha, P., Sutradhar, R., E Fahmida, A., Chen, G. and Banerjee, S., 2012. Mobile Financial Services in Bangladesh: An Overview of Market Development 1. Bangladesh Bank.
- V. Sultana, R., 2014. Mobile Financial Services (MFS) Business and Regulations: Evolution in South Asian Markets.
- VI. Tabassam, R., 2020. Fintech MFS: Best Mobile Financial Services in Bangladesh. <https://unb.com.bd/category/Business/fintech-mfs-best-mobile-financial-servicesinbangladesh/43453>
- VII. Anwarul I. and Salma , (2016) Mobile Banking Operations and Banking Facilities to Rural People in Bangladesh DOI: 10.11648/j.ijfbr.20160204.14
- VIII. Sohel M., John R., Ariful and Samina (2011), Problems and prospects of mobile banking in Bangladesh, Journal of Information Engineering and Application; ISSN: 2224-5758
- IX. Yeaseen Chowdhury, Anwar Hossain, Habib, Yue (2019) Role of Mobile Financial Service in Promoting Online Small Business in Bangladesh DOI:10.6896/IETITSSH.201911_5.0015
- X. Rafiq Ahmed, (2018) Mobile Financial Services (MFS) in Bangladesh: Measuring Its Consumers' Attitude & Its Role on Buying Decisions of Other Company's Products of the Consumers