

# MOBILE FINANCIAL SERVICE INDUSTRY & DIGITIZATION IN BANGLADESH

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## KeyWords

MFS (Mobile Financial Services), Digitization, Digital Bank, Cashless economy, Economic Boost up.

## ABSTRACT

This report focuses on Nagad Ltd. and analyzes how digitalization has affected mobile financial services (MFS) in Bangladesh. It examines the rapidly expanding MFS sector, evaluates the provider lifecycle, and describes the competitive environment. The paper then delves deeply into Nagad's performance, crediting it to their astute use of digital tools across the board. Financial fraud and interoperability are two challenges that are addressed. The research concludes by examining MFS's future in Bangladesh and how it might affect both traditional banking and the drive toward financial inclusion.

## Introduction

Mobile Financial Service is defined as a financial service that transacts money without a personal assistant. Mobile Financial Service (MFS) converts cash into e-money, that e-money is transferable and as liquid as cash. MFS industry runs by e-money. E-money is electronic money that is intangible. The value put into an application that considers a mobile wallet as e-money has no tangibility to transfer in few seconds. MFS is the process that converts cash into invisible money that it can save, hold on a mobile wallet, and again it converts into currency. MFS operates by mobile accounts, and mobile versions use USSD (Unstructured Supplementary Data Service), SMS, or application on the mobile phone. Agents created mobile service accounts, but now they can be open with dial code only. Agents are authorized members of MFS providers who facilities services to customers. Agents are the link to connect MFS providers and Customers and acts as individual banks that collect, transfer, and withdrew money. MFS provides- Cash in/ Out from agents, Cash out from ATM, Balance inquiry, Mobile recharge, Utility bill payment, P2P fund transfer, P2B payments, B2P fund transfer, G2P fund transfer, Merchant payment by the customer, Inward remittance, etc.

Mobile Financial Services (MFS) have witnessed a phenomenal surge in Bangladesh, particularly during the COVID-19 pandemic. Bangladesh Bank reports and market observations reveal a significant increase in demand, highlighting the growing reliance on MFS for everyday transactions. Platforms like bKash, Nagad, and Rocket have become integral, facilitating salary payments, bill payments, tuition fees, and even government disbursements.

This rise can be attributed to increasing digital literacy, empowering individuals to utilize mobile applications for financial transactions. Gone are the days when basic phone operations were a challenge. Today, people

across Bangladesh, from rural areas to urban centers, are embracing MFS for convenient and efficient cash transfers.

This study delves deeper into the current state of the MFS industry, exploring the competitive landscape as providers strive to enhance their app features. We will specifically analyze Nagad's sales operations, delve into the definition of E-money, and explore the Uddokta lifecycle. Additionally, we will examine the key differences between the banking and mobile financial services industries. By analyzing these factors, the study aims to shed light on the impact of competition and other aspects on the MFS industry, while also providing insights into the sales operation department within Nagad.

## 1.1 Research objective

### Broad Objective:

- *This research investigates how digitalization shapes Nagad's operations, performance, financial inclusion efforts, and competitive advantage within Bangladesh's MFS landscape.*

### Specific Objectives:

- *To analyze the impact of Mobile financial services on Global and Bangladesh economy.*
- *To evaluate the effect of digitalization on Nagad's performance.*
- *To examine the role of digitalization in promoting financial inclusion through Nagad.*
- *To provide recommendations for Nagad's future digitalization efforts.*

This revised structure clarifies the broad goal of understanding Nagad's digital transformation and breaks it down into specific, measurable objectives. Each objective focuses on a distinct aspect of the impact of digitalization, providing a clear direction for the research.

## 1.2 Research methodology

### Research Approach and Design

This research will employ a mixed methods approach that combines qualitative and quantitative data collection techniques. This allows for a comprehensive understanding of Nagad's digitalization efforts.

### Quantitative Data:

This could involve collecting measurable data to assess the impact of Nagad's digitalization efforts. Examples include:

- Number of new users acquired through digital marketing campaigns.
- Increase in digital transactions processed by Nagad.
- User demographics and location data (if anonymized) to understand user base trends.
- Customer satisfaction surveys with rating scales on aspects of Nagad's digital platform.

### Qualitative Data:

This would provide deeper insights into user experiences and perceptions. Examples include:

- In-depth interviews with Nagad users to understand their motivations for using the platform and their experiences with its digital features.
- Focus groups to explore user feedback on the user interface, usability, and overall satisfaction with Nagad's digitalization efforts.
- Social media analysis to monitor user sentiment and online conversations about Nagad's digital presence.

## Benefits of a Mixed Methods Approach

- **Comprehensive Understanding:** By combining quantitative data on usage and impact with qualitative data on user experiences, researchers gain a richer picture of Nagad's digitalization efforts.
- **Explanation and Context:** Quantitative data can show "what" is happening (e.g., increase in users). Qualitative data helps explain "why" it's happening (e.g., user-friendly app features).
- **Identifying New Areas for Exploration:** Qualitative data can reveal unexpected user needs or challenges that quantitative data wouldn't capture. This can guide further research efforts.

## Data Collection Methods:

### Primary Data:

**Interviews:** Semi-structured interviews will be conducted with key personnel from Nagad's Operations, Customer Service, and Marketing departments. This will provide insights into the specific digital tools and strategies used for customer onboarding, sales & distribution, transaction processing, customer support, and marketing campaigns.

**Surveys:** An online survey will be distributed to Nagad's customers to gather feedback on their experience with the digital MFS platform. The survey will assess user-friendliness, accessibility, and the impact on financial inclusion.

### Secondary Data:

**Document Analysis:** Company documents, web portals, and official materials from Nagad Ltd. will be analyzed to understand their digital initiatives, performance metrics, and strategic goals related to digitalization.

**External Data Analysis:** Reports and publications by Bangladesh Bank will provide context on the MFS industry's growth, regulatory landscape, and the role of digitalization. Academic journals, research articles, industry reports, and news articles will offer broader insights into the impact of digitalization on MFS adoption, financial inclusion, and the competitive landscape in developing economies, particularly relevant to Bangladesh.

### Data Analysis

**Quantitative Analysis:** Data collected through surveys will be analyzed statistically to identify trends and patterns in customer experiences and perceptions regarding Nagad's digital MFS platform.

**Qualitative Analysis:** Interview transcripts and open-ended survey responses will be analyzed thematically to understand user experiences, challenges faced, and areas for improvement within Nagad's digital services.

**Comparative Analysis:** Data from both primary and secondary sources will be compared and contrasted. This will reveal the impact of Nagad's digitalization efforts on its performance, contribution to financial inclusion in Bangladesh, and its competitive positioning within the MFS industry.

## 1.3 Overview of "NAGAD."

### **Nagad was officially launched by Hon'ble Prime Minister of Bangladesh on 26 March 2019**

Nagad has earned the right to be regarded as a crucial component of Bangladesh's financial system. In accordance with the needs of the populace and the development objectives of the Bangladeshi government, Nagad envisions itself serving as a one-stop shop for digital banking in collaboration with the whole financial services sector.

Nagad believes that strategic partnerships are the only way to ensure the most impactful, relevant digital financial services for Bangladeshi citizens. They invite everyone to join them in this journey of reimagining and leapfrogging into the financial services industry.

Bangladesh is a thriving economic playground, pulsing with optimism and aspiration. A population of 165 million people, nearly half of which are under 25, have awakened to the vast possibilities of the future. They en-

thusiastically adopt new ideas from the external while also confidently forging their own direction.

The Honorable Prime Minister of the People's Republic of Bangladesh launched Nagad on March 26, 2019, as a revolutionary partnership under the pioneering, century-old financial authority of the Bangladesh Post Office. That is what it does—and it does so with quite an intention: to make sure a complete digital financial service in an evolving manner for the country's people and minor businesses.

Within a very short period Nagad has set some unprecedented benchmarks. Nagad processed BDT 750 Crores worth of transactions every day, had 2.20 lakh Uddokta, and 5.50 Crore customers. Not to forget, the breakthrough innovation that Nagad brought was facilitating customers to open a Nagad Account simply by dialing \*167#. This made it easier for even feature phone users to do the same with ease.

### **Mission**

The mission is clear: provide a comprehensive digital and ever-evolving financial service to the country's people and small businesses.

### **Vision**

Nagad envisions a Bangladesh where digital financial services are not a privilege, but a basic tool for everyone. They aim to empower people with affordable and user-friendly mobile financial services, regardless of location or income. This will enable them to actively participate in the digital economy, manage their finances effectively, and achieve their personal and professional aspirations.

### **Introduction of All the Departments**

Nagad LTD has various divisions. Each division has its own functions and responsibilities.

### **Driving Growth and Customer Success:**

**Commercial Division:** Leads customer acquisition strategies, market share growth, revenue generation, and customer satisfaction initiatives.

### **Building Strong Partnerships:**

**Business Development Division:** Manages partnerships with mobile network operators, banks, merchants, and government agencies to expand Nagad's reach.

### **Ensuring Technical Excellence:**

**Technology Division:** Develops, maintains, and secures the software and hardware systems that power Nagad's services. They also research and innovate new technologies to enhance Nagad's offerings.

### **Financial Management and Oversight:**

**Finance Division:** Handles accounting, budgeting, auditing, taxation, treasury, and financial reporting for Nagad. They also provide financial analysis and guidance to support informed decision-making.

### **Building a Strong Workforce:**

**HR & Administration Division:** Oversees human resources and administrative functions, including recruitment, training, performance evaluation, compensation, benefits, and employee relations.

### **Building Brand Reputation and Relationships:**

**External Affairs Division:** Fosters relationships with key stakeholders through internal and external media, promoting Nagad's growth and development through innovative and entrepreneurial programs.

### **Corporate Governance and Social Responsibility:**

**Corporate Affairs Division:** Focuses on the rights and responsibilities of Nagad's management, board, shareholders, and other stakeholders. They ensure good governance practices that contribute to market confidence, responsible growth, and potential sponsorship opportunities.

### Customer Service and Support:

**Business Support Division:** Provides customer service for inquiries, complaints, and digital payments. They also offer product and service advice, manage customer records, and conduct telemarketing and market research calls.

### Nagad's Headquarters:

Located at Delta Dahlia Tower, 36 Kemal Ataturk Avenue, Banani, Dhaka 1213, Bangladesh, near the Sheraton Hotel.

### Nationwide Workforce:

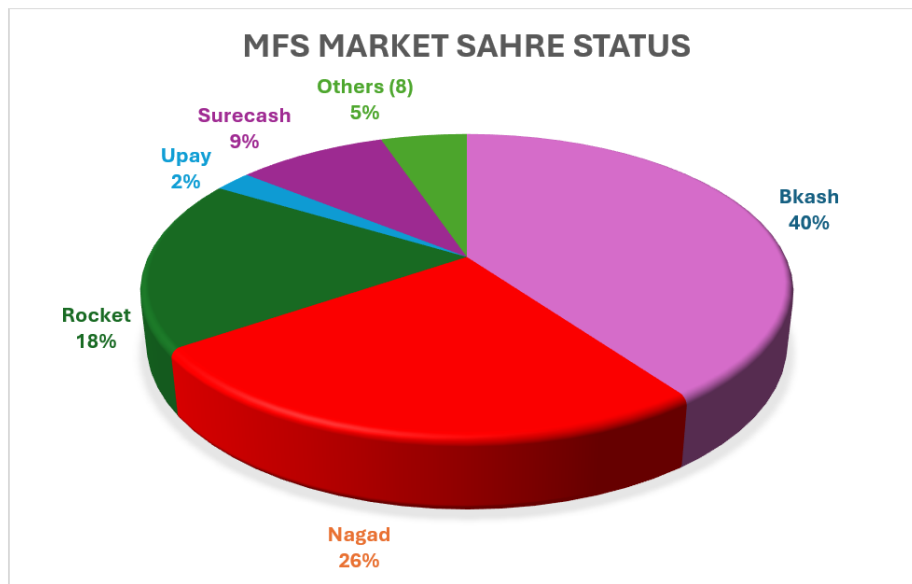
Employs approximately 700 people across Bangladesh.

Roughly 400 employees work at the head office, while the remaining 300, including regional officers, are strategically located throughout the country.

### Dedicated Team:

These employees form the backbone of Nagad's operations. They play a vital role in delivering digital financial services to customers, ultimately driving Nagad's growth and success within the competitive Bangladeshi mobile financial services sector.

### Current MFS Market Share Status



## 1.4 Literature review

### The Revolt of Mobile Financial Services (MFS) in Bangladesh

Mobile Financial Services (MFS) have revolutionized financial inclusion in Bangladesh. As Keith Grose, Head of Plaid, states, "companies are creating new financial products and services" to meet evolving consumer needs. MFS seamlessly integrates banking with mobile networks, allowing users to conduct financial transactions through their mobile devices.

### The Regulatory Landscape

Bangladesh Bank plays a crucial role in governing the MFS industry. In 2011, it issued "Guidelines on Mobile Financial Services (MFS) for Banks," initially restricting MFS operations to bank-led models. These guidelines established "Mobile Accounts" as distinct from traditional bank accounts.

Recognizing the sector's rapid growth, Bangladesh Bank issued the "Bangladesh Mobile Financial Services (MFS) Regulations, 2018" to strengthen regulations. These regulations continue to prioritize scheduled com-

mercial banks as MFS providers, allowing existing operators to maintain their licenses or form subsidiaries. This makes sure a balance between steadiness and innovation. The regulations also emphasize compliance with Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT) requirements.

### **MFS: A Boon for Financial Inclusion**

MFS has significantly boosted financial inclusion in Bangladesh. Since its launch in 2011, with pioneers like DBBL's Rocket and BRAC Bank's bKash, MFS has grown exponentially. Initially limited to cash-in/out transactions and basic bill payments, MFS services have expanded significantly. Today, over 15 banks and a million agents serve the MFS industry, including Bangladesh Post Office's entry in 2019.

As of April 2021, registered MFS users surpassed 96 million (with 36.75 million active accounts), reflecting a remarkable 13.32% increase from the previous year. The total transaction value reached Tk.63,441.20 crore in that month, demonstrating the industry's growing importance. P2P transactions, cash-in/out, and merchant payments dominate the current transaction landscape, with significant opportunities for growth in areas like SME services, utility payments, and e-commerce.

### **The Impact of MFS**

MFS has demonstrably increased financial inclusion in Bangladesh. The proportion of MFS account holders skyrocketed from 3% in 2014 to over 50% in 2021, exceeding regional and global averages for developing economies. The COVID-19 pandemic further boosted MFS adoption as it facilitated government allowance distributions, salary payments, and other digital transactions.

### **A Competitive Landscape**

Bangladesh Bank regulates a competitive MFS market with players like bKash, Nagad, Rocket, MYCash, SureCash, UPay, and TAP. bKash currently holds the majority market share. MFS has become a vital component of the financial ecosystem, enabling users to conduct a wide range of transactions, from money transfers to utility bill payments. This innovation has significantly accelerated financial inclusion across the country.

### **The Future of MFS**

The future of MFS in Bangladesh is promising. Bangladesh Bank's introduction of personal accounts for micro-entrepreneurs signifies a targeted approach to further expand financial inclusion. Additionally, MFS platforms have the potential to become a hub for various financial services offered by banks, microfinance institutions, NGOs, and insurance companies. This could streamline service delivery and reduce costs.

The government's proactive approach in collaborating with the private sector fosters a conducive environment for continued growth. MFS has transformed the rural economy and positioned Bangladesh as a regional leader in mobile banking.

### **Challenges and Opportunities**

Despite its success, MFS faces challenges such as limited financial and technological literacy among users. Additionally, many small and medium-sized enterprises (SMEs) remain outside the formal financial system. Moving forward, MFS providers will need to prioritize financial education and develop strategies to integrate more SMEs into the digital financial ecosystem.

Technological advancements hold immense potential. Integrating artificial intelligence, blockchain, virtual reality, machine learning, and the Internet of Things (IoT) can propel the MFS industry to new heights.

### **A Collaborative Future**

The recent government initiative to establish interoperability through the Interoperable Digital Transaction Platform (IDTP) and the National Payment Switch Bangladesh (NPSB) by December 2021 signifies a commitment to a more interconnected financial system. This will allow MFS providers to focus on enhanced customer service and product innovation, further propelling MFS towards a collaborative and prosperous future.

## **1.5 Gap analysis**

Conducting a comprehensive analysis of Nagad Ltd. within the short timeframe presents several challenges. Notably, the organization's information disclosure policy may restrict access to crucial data. This could limit the

availability of detailed insights from personnel interviews and potentially hinder a complete picture of the internal systems. As a result, the study might rely on approximated data, impacting the accuracy of certain findings.

These limitations highlight a gap in publicly available information regarding Nagad's specific strategies and internal processes. While existing research explores MFS adoption and financial inclusion broadly, a deeper understanding of Nagad's unique approach to achieve rapid growth remains elusive. This study aims to bond this gap by:

Investigating the organization's customer acquisition and market expansion strategies through available data and external sources.

Analyzing the impact of Nagad's digitization efforts on user experience and financial inclusion based on accessible information.

Comparing Nagad's methods with established MFS players in Bangladesh to identify potential competitive advantages using publicly available data.

By acknowledging these challenges and focusing on accessible information, this research strives to contribute valuable insights to the understanding of Nagad's role in the Bangladeshi MFS landscape. The goal is to provide a comprehensive analysis within the constraints presented, while highlighting the need for further exploration of Nagad's internal strategies once information access becomes more open.

## 1.6 Scope and Limitations

### Scope

In this report, I can find several scopes that may help improve NAGAD performance and overall, the benefits MFS Industry and our economy.

- Predicting the changes in NAGAD by analyzing changes in MFS Industry.
- Understanding market competition in terms of NAGAD performance.
- Developing DFS (Digital Financial Services) in Bangladesh by NAGAD.
- Creating competition with Banking Industry in Bangladesh.
- Applying artificial intelligence for more rapid & secure transactions in NAGAD.

### Limitations

Limitations faced while preparing this report were-

- Because of time shortage could not get collect all departmental activities information.
- Field information could not contain due to time constraints.
- Had data shortage for further research.
- Taken sample opinion cannot take the mass survey.
- Could not access in financial data of NAGAD due to organization policy.

## 2.1 Mobile Financial Services Industry

Mobile Network Operators (MNOs)

MNOs integrate mobile financial services with telecom services seamlessly. Users can access financial services through their mobile phones, making it convenient and accessible for a broad range of people.

- **Non-Bank vs. Bank-Led:** The key difference is the primary provider of services. Non-bank models are provided by entities other than traditional banks, while bank-led models are led by traditional banking institutions.

- **Narrow Bank vs. Centralized Model:** The main difference lies in the scope of services. A narrow bank focuses on a specific set of services, whereas a centralized model refers to the centralization of control and management of the entire system.

In this model, the central banks of Jordan and Sudan are responsible for issuing electronic money. Electronic money is a digital form of currency that is typically issued and regulated by a central authority, in this case, the central banks. The central banks also play a crucial role in overseeing the central processing platform.

## 2.2 The Growth of the MFS Industry

MFS has grown to enhance a fast startup, shifting banking a little at a time every day. With the escalated usage of mobile phones, MFS has come to be very accepted with many people who used to be unbanked. Corresponding to the Global System for Mobile Communications Association, active mobile money accounts intensified from 1 billion to 1.2 billion in the year 2020. In 2025, there will be an projected 1.6 billion registered accounts worldwide.

Other factors have also fueled the progress of the MFS industry. For example, MFS can give a hand in taking mobile financial services to the people who either cannot or are not permitted to use formal or official banks. This is certainly more critical in poor countries where most of the people do not have entry to regular financial services. Furthermore, MFS happens to be extremely accessible and reachable. First and main, on account of a high usage of mobile phones, users have a chance to access the services of MFS. And finally, MFS is comparatively economical. In comparison with old-style banking services, maintenance costs less, and the client accepts these benefits.

The proper in-depth inspections that follow may be considered to give an insight of the progress of the MFS business.

**1. MFS Acceptance in Developing Nations:** MFS is increasingly used in developing countries with relatively low access to established financial services. The mobile money transfer software M-Pesa has entirely transformed the way people in Kenya controlled their financial affairs. There are about Forty (40) million users of M-Pesa in Kenya. Other African countries that offer this service apart from Kenya are Tanzania, Mozambique, and the Democratic Republic of Congo.

**2. Bank-MFS Provider Alliances:** Many of the MFS providers are contacting banks to foster their services further. For example, in Bangladesh, one of the prominent MFS providers named bKash has agreements with several banks to provide banking services to its customers. Accordingly, the customers of bKash, because of this agreement, can payment and withdraw money from their banks via only their mobile phones.

**3. MFS Modernization:** MFS providers have constantly been rebranding their products to mean a wider clientele and re-instate their offerings. Some MFS providers have, for example, included e-commerce platforms in their services by allowing users to make payments for products or services sold on mobile phones. Some even go so far as to embed AI in fraud revealing and customer service.

There are many prospects for MFS providers because the MFS sector is anticipated to continue developing. More creative way out that meet a wide array of needs from clients will be called upon when more people use mobile financial services.

## 2.3 Ranking by Market Share

Mobile financial services are sweeping through the worlds, especially in poorer countries. One of the essential traits that have made MFS such a popular mode of payment is that it is open to all, hence enabling users to



transfer money, pay bills, and schedule purchases with just a few clicks on their smartphones. Because it was rapidly expanding, many businesses offering mobile financial services have cropped up. This section will only consider the market share of the leading MFS companies and look into trends in their performance and growth.



Table 05: Ranking by Market Share

- 1. Vodafone M-Pesa:** With a market share of about 20.8%, Vodafone M-Pesa is one of the key players in the MFS sector. Since its launch in the year 2007, M-Pesa has managed to secure over 40 million customers for its services across three continents: Europe, Asia, and Africa. It has emerged as one of the largest MFS platforms. Services offered by Vodafone M-Pesa include payment of bills, topping up airtime, and money transfers.
- 2. Tigo Pesa:** Tigo Pesa is the second major player within the MFS industry, with a market share of 7.8 percent. Beginning in 2008 in Tanzania, this has now taken enormous momentum with over 10 million registered users. Services include the following: cash withdrawals, bill payments, and money transfers.
- 3. MTN Mobile Money:** MTN owns around a 7.2% market share and represents the superficial layer for an MFS platform. Launched in 2009, MTN Mobile Money grew rapidly with more than 33 million registered users across the Middle East and Africa. MTN Mobile Money provides numerous bill payment facilities, such as airtime top-up, money transfer, and other services.
- 4. Airtel Money:** With a market share of 6% in the market, Airtel Money is regarded as one of the pioneering MFS platforms. Inaugurated in 2010, Airtel Money has crossed more than 20 million customer bases across India and Africa, thus becoming a source for an extensive payout network. It offers a slew of services like bill payment, virtual shopping, and person-to-person money transfer.
- 5. Orange Money:** It is another major operator in the MFS space, having a market share of 4.3 percent. With over 40 million subscribers since its inception in 2008, Orange Money is one of the world's fastest-growing MFS in Africa and the Middle East. Services include orange money in bill and airtime payments and money transfers.

The leading MFS providers dominate the market, having several million subscribers all over the globe. Mobile financial services are an appropriate and convenient method of payment, as the companies offering these services have various services for their clients, who have different needs. We can surely claim that more companies will be found within the market and established companies extending their services due to continuous growth of MFS.

#### 2.4 Performance of Top MFS Companies in the Last Decade

In the business context, MFS has evolved over the years through its simplicity and convenience in management of money for customers. Due to its fast-growing demand, it may be critical to review the performance of key MFS players in the last ten years. Their performances should present an opportunity to understand in detail the techniques and strategies employed by such businesses that have led to them becoming successful.



Table 06: Performance of Top MFS Companies in the Last Decade

**1. Mobile Money Penetration:** In the past decade, the spread of mobile money services has increased drastically. GSMA research estimates that by 2020, 310 million functional mobile money accounts will exist out of a total of 1.3 billion listed accounts. Indeed, this goes on to prove that providers of MFS have been successful in reaching more unbanked people and giving them access to financial services.

**2. Growth in revenues:** A decade ago, companies involved in MFS began to reap high profits. For instance, a profit rise of 14% in 2020 pushed M-Pesa, the Kenyan largest mobile money provider, to \$640 million. There has been an increase in transaction volumes as more people start using mobile money services in everyday transactions, and this is the reason for the said growth.

**3. Partnerships:** The MFS enterprises have been expanding their clientele and offerings through partnerships with other businesses. For example, MTN Mobile Money was partnering with Mastercard in offering a virtual card that allows customers to purchase from the internet. Through the deal, MTN can provide internet purchasing ability to its clients, hence expanding its services to more than the normal well-known mobile money transactions.

**4. Innovation:** MFS organizations have been pumping money into new ideas that improve their offerings, hence improving client satisfaction. For instance, under Safaricom, M-Pesa has a service called "Lipa Na M-Pesa," which enables clients to pay for goods and services using their smartphones. For small enterprises, this has been a game changer in that it gives them the ability to take payments from clients who prefer mobile money.

**5. Regulatory Ecosystem:** It has made a great deal in scaling MFS enterprises. For example, Central Bank of Kenya came up with regulations allowing the introduction of mobile money services by any telecom company. It introduced Safaricom's M-Pesa, which now leads the market in Kenya.

In summary, leading MFS firms recorded tremendous growth in revenues over the past decade, with many tie-ups and innovations. These companies have been sophisticated in developing their access to the unbanked population, offering them access to financial services. The transformation of MFS companies into more installations and operations for other services has been facilitated by a critical regulatory environment.

## 2.5 Mobile Financial System Industry in Bangladesh

Bangladesh Bank regulates and monitors the MFS industry. They have permitted 18 banks and one subsidiary to provide MFS services. Bank-led is the only model which Bangladesh Bank enables for the MFS industry. There is another model like Telco-led / Non- bank model, which Bangladesh Bank does not permit, and global MFS providers operate by this model.

After launching MFS in Bangladesh, financial inclusion increasing rapidly; almost 15 banks in Bangladesh now connect with MFS providers not only that nearly 1 million agents work in the industry. For the COVID pandemic

situation use of MFS gets its most significant boost over time from launch. Now government depends on these services to distribute allowance to people. Many organizations pay their employees' salaries via MFS. MFS industry gives support to RMG, Banking, and many other industries. In this industry, a total of 6 MFS providers exist- BKASH, NAGAD, ROCKET, UPAY, TAP, Sure Cash.

BKASH is the first MFS provider in Bangladesh. They occupy 60% market share and are set up as a market leader because they have an extensive agent network. They have a back of Brac Bank and have the first-mover advantage.

NAGAD is the second-largest MFS provider in Bangladesh. They directly compete with BKASH. By innovating e-KYC, NAGAD got a market advantage now became the competitor of BKASH. NAGAD is part of the Bangladesh Post Office, but it is not under Bangladesh Bank's authority.

ROCKET gives banking facilities of Dutch Bangla Bank Ltd., but it also has an MFS provider. They have allies with many educational institutions, insurance companies by which they provide their services.

UPAY & TAP are the newcomers in this industry. UPAY under UCB bank Ltd. and TAP is the joint venture of Trust Bank & Axiata Group.

In conclusion, the demand of customers, competition, technological advancement, and digital literacy develops the performance of the MFS industry in Bangladesh.

## 2.6 MFS Providers Life Cycle

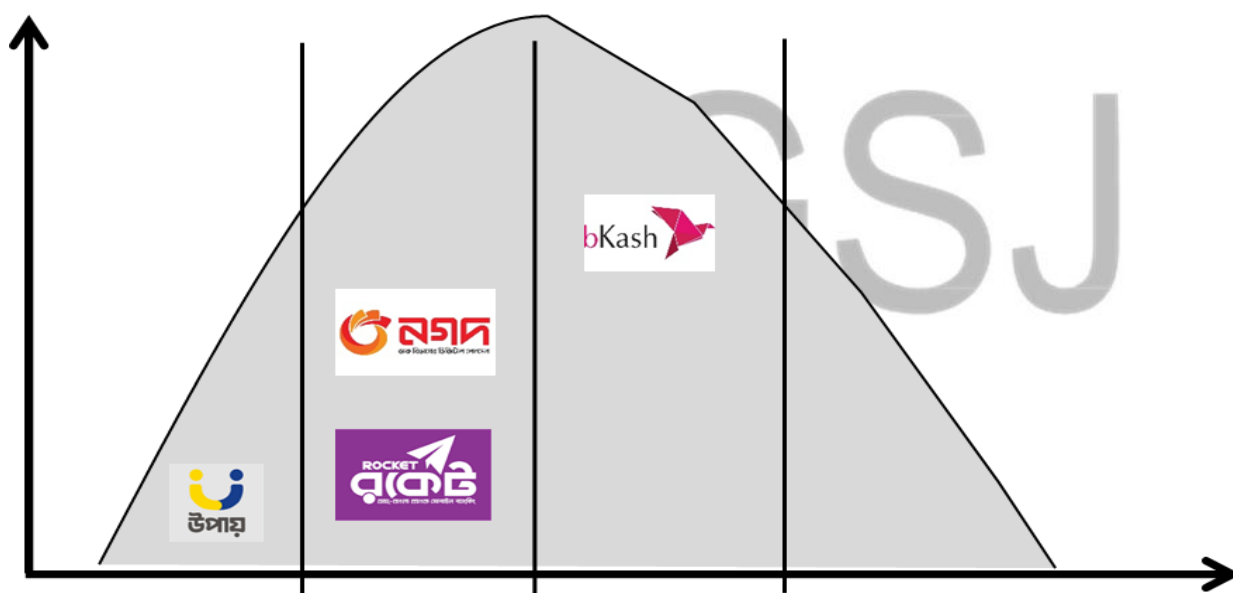


Table 07: MFS Providers Life Cycle

Introduction      Growth      Maturity      Decline

In MFS Industry, BKASH reaches its growth stage. They operate their services since 2011; almost after ten years of their service, they have an extensive network of agents, expertise, and

first-mover advantage. All those help them occupy 80% of the market share, holding this amount of market share they establish as the market leader.

NAGAD is now in a growth stage. In 2019, they started to give services to its customer. NAGAD did extensive marketing in the urban and rural areas and directly competed with BKASH. They innovate digital KYC, which helps them grow, and now they are the biggest competitor of BKASH.

ROCKET is also in the growth stage. ROCKET gives mostly banking-based facilities, which help them to grow in the industry.

UPAY relaunch them and introduces them as a new brand. They collect traffic fines, Indian visa processing fees,

which gives them an advantage.

## 2.7 List Of MFS Providers

SI No.	Name of the MFS Service	Name of the Business Entity
1	ROCKET	Dutch Bangla Bank Ltd.
2	bKash	bKash Ltd.
3	MYCash	Mercantile Bank Ltd.
4	Islami Bank mCash	Islami Bank Bangladesh Ltd.
5	Trust Axiata pay: tap	Trust Axiata Digital Ltd.
6	FirstCash	First Security Islami Bank Ltd.
7	উপায় (Upay)	UCB Fintech Company Ltd.
8	OK Wallet	One Bank Ltd.
9	Rupali Bank	Rupali Bank Ltd.
10	TeleCash	Southeast Bank Ltd.
11	Islamic Wallet	Al-Arafah Islami Bank Ltd.
12	Meghna Pay	Meghna Bank Ltd.
13	Nagad	Bangladesh Post office (with interim approval of BB)

Table 08: List Of MFS Providers

## 2.8 Mobile Financial Services Summary Statement

Mobile Financial Services (MFS) comparative summary statement of December, 2023 and January, 2024

Serial no.	Description	Amount in December, 2023	Amount in January, 2024	% Change (December 2023 to January 2024)
A.	<b>Industry Wise Information</b>			
1	No. of Banks currently providing the Services	13	13	
2	No. of agents	1724685	1739321	0.85%
3	No. of registered clients in Lac	2204.57	2191.74	-0.58%
4	No. of active accounts in Lac*	837.49	837.10	-0.05%
5	No. of total transaction	550908859.00	562750812.00	2.15%
6	Total transaction in taka (in crore BDT)	124548.46	129445.47	3.93%
7	No. of daily average transaction	17771254.00	18153252.00	2.15%
8	Average daily transaction (in crore BDT)	4017.69	4175.66	3.93%

Serial no.	Description	Amount in December, 2023	Amount in January, 2024	% Change (December 2023 to January 2024)
1	Inward Remittance	586.87	593.38	1.11%
2	Cash In transaction	39959.42	40228.33	0.67%
3	Cash Out Transaction	35642.03	37404.16	4.94%
4	P2P transaction	34277.17	35276.21	2.91%
5	Salary Disbursement (B2P)	3139.25	4034.58	28.52%
6	Utility Bill Payment (P2B)	2903.58	2755.72	-5.09%
7	Merchant Payment	5518.45	5769.24	4.54%
8	Government Payment	469.02	1311.54	179.63%
9	Others	2052.67	2072.32	0.96%

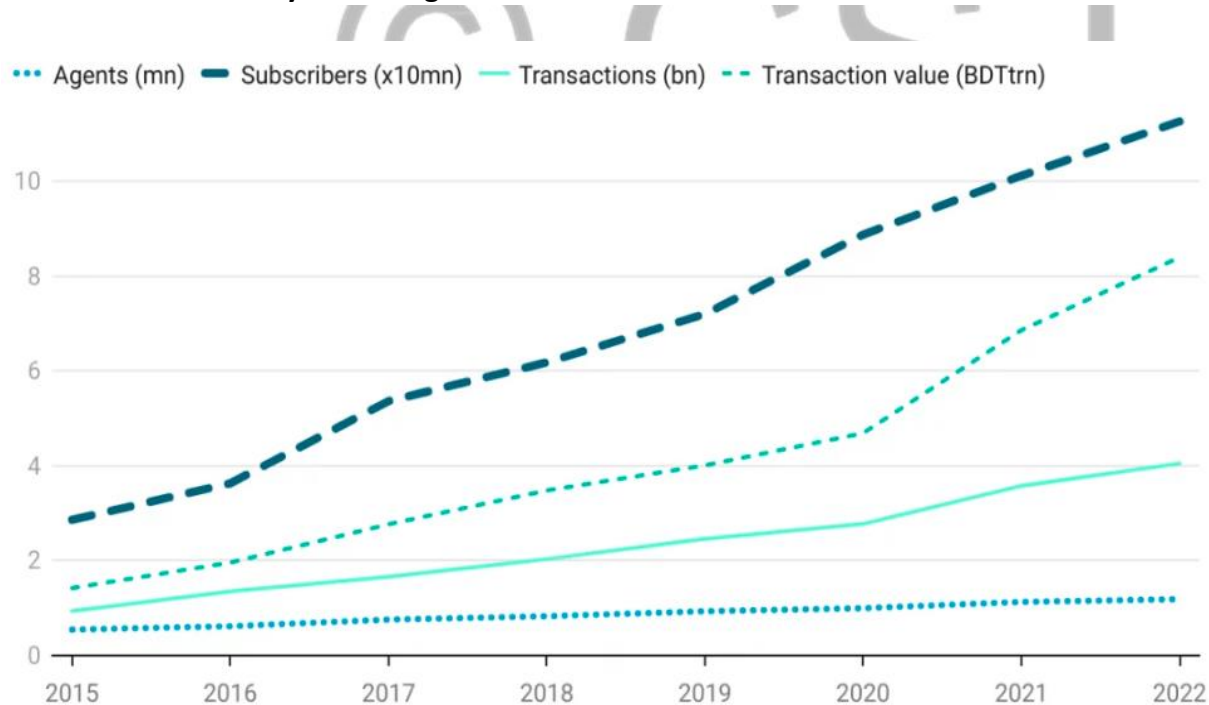
[1 lakh = 0.10 million & 1 crore = 10 million]

Figure 01: Mobile Financial Services Summary Statement

Definite No of days in month has been applied for average calculations.

\*Account in which any kind of transactions had made in last three Months.

## 2.9 MFS Growth Analysis in Bangladesh



Nagad Ltd., a leading mobile financial services (mfs) provider in Bangladesh, has undergone a digital transformation, streamlining operations, reaching new customers, and driving financial inclusion.

Here's how digitization is reshaping Nagad:

### Unleashing Operational Efficiency:

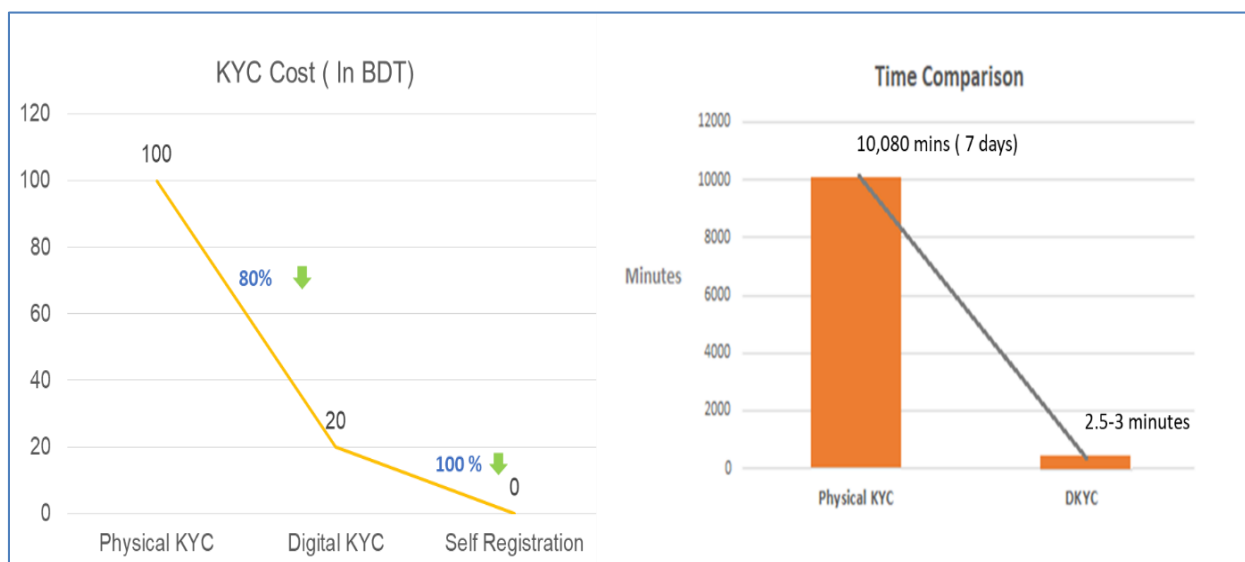


Figure 03: Cost & time reduction through DKYC

Nagad leverages digital tools to automate core functions like customer onboarding, sales & distribution, transaction processing, and customer service. This reduces manual tasks, improves accuracy, and frees up resources for other priorities. Additionally, digital tools allow Nagad to collect and analyze vast amounts of data on customer behavior, transaction patterns, and market trends. These insights empower data-driven decision-making for product development, marketing strategies, and risk management.

**Boosting Customer Acquisition and Growth:**

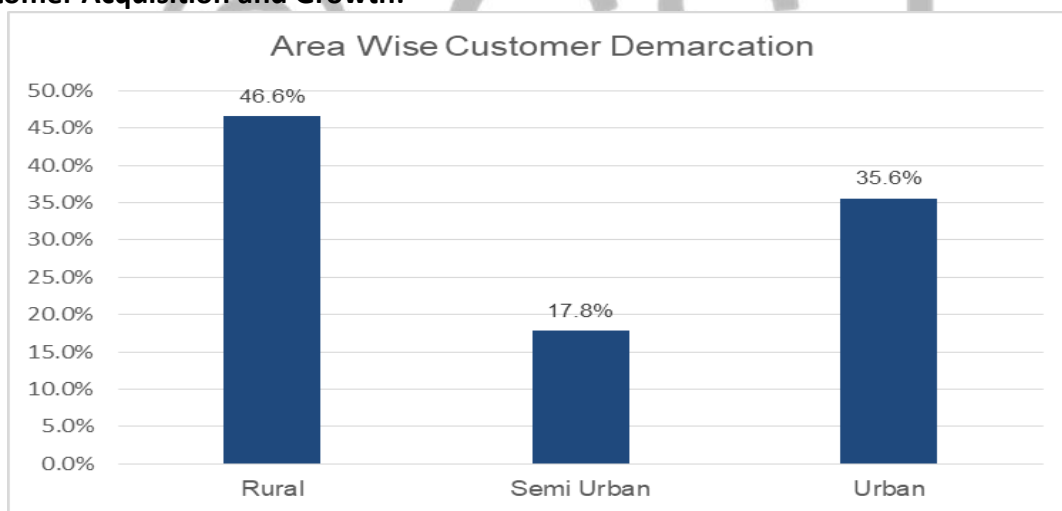


Table 04: Nagad’s growth was 59% in unique active agent/ Uddokta compared to last year

Nagad's digital MFS platform makes financial services readily accessible through mobile apps, eliminating the need for physical branches or traditional banking infrastructure. This opens doors for a wider audience, particularly in remote areas with limited access to traditional banking. Digital solutions offer a user-friendly experience, allowing customers to conduct transactions, manage accounts, and access financial services anytime, anywhere. This convenience fosters customer loyalty and encourages increased usage.

**Promoting Financial Inclusion:**

By leveraging mobile technology, Nagad empowers the unbanked population – those without access to traditional banking systems – to participate in the formal financial sector. This promotes financial inclusion by providing them with tools for saving, sending and receiving money, and potentially accessing credit. Digital platforms can also be used to deliver financial literacy programs, educating users on responsible financial management, budgeting, and leveraging financial services effectively.

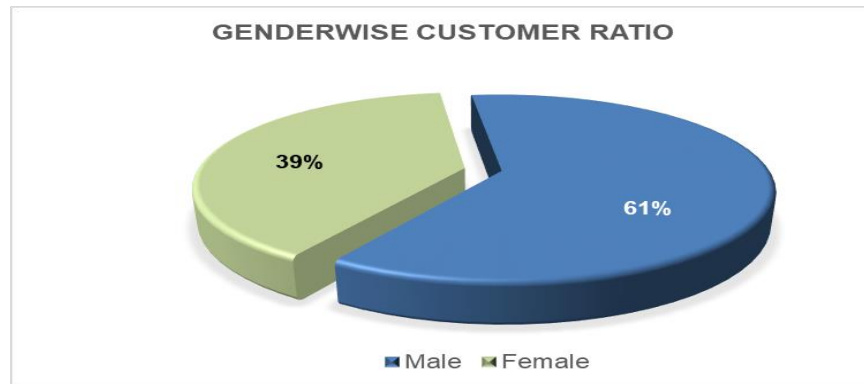


Table 05: Gender wise Customer trend

**Competitive Edge through Innovation:**

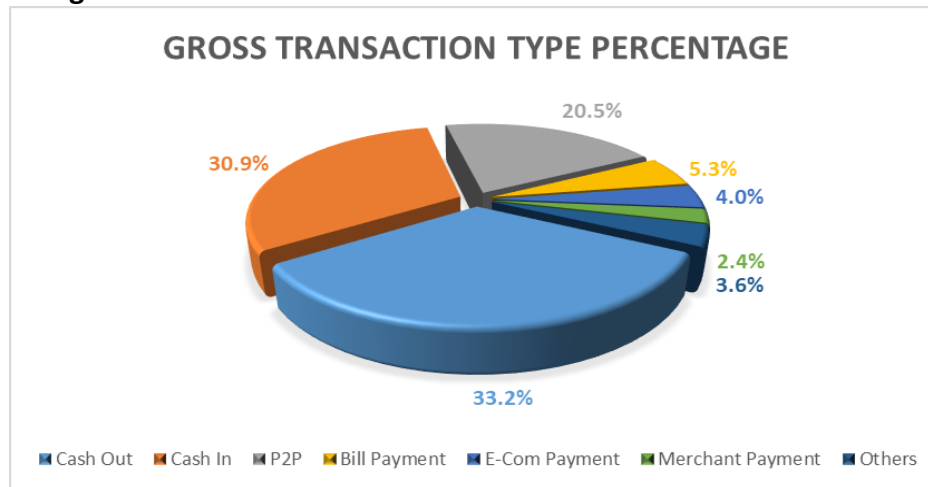


Table 06: Gross Transaction type percentage

**Nagad’s Users mostly perform Cash Out(33%) & Cash In(31%) through Nagad wallets**

Digital tools enable Nagad to innovate and develop new MFS products and services quickly and efficiently. This allows them to stay ahead of the curve and cater to evolving customer needs in a dynamic financial landscape. Additionally, digital tools support robust risk management practices. Nagad can analyze transaction data to identify and prevent fraudulent activities, ensuring the security and integrity of their platform.

Overall, Nagad's commitment to digitization is a key driver of their success in Bangladesh. By leveraging digital technologies, they are streamlining operations, expanding their reach, promoting financial inclusion, and maintaining a competitive edge in the MFS industry.

**3.2 Industry and Competitive Analysis**

**3.2.1 SWOT Analysis**

As a leading provider of financial services, Nagad is constantly seeking methods to keep one step ahead of its competitors. They frequently assess the company's SWOT—strengths, weaknesses, opportunities, and threats—in the marketplace in order to achieve this. I had the good fortune to learn about Nagad's internal SWOT analysis during my thesis. This analysis provides a comprehensive picture of Nagad's advantages, disadvantages, opportunities, and dangers. It is displayed below.

**Strengths:** Innovative financial company Nagad stands out from the competition because of its many advantages. Consumers think well of the business and value the high quality of the products they sell. Strong HR standards, a distinct chain of command, and highly qualified decision-makers characterize the organizational body. This contributes to an efficient and safe environment. Additionally, Nagad has attracted a sizable user base to their app because of their digital advertising. Clients can use either an app or a code to access Nagad services. Furthermore, because of government support, they enjoy less regulatory constraints than other financial system players.

**Weakness:** Although there seems to be a lack of coordination across several of its departments, clients have reported that the agents are dependable and professional. However, there are fewer agents and merchants

than competitors, which may result in lengthier client wait times. The business might think about expanding its network of agents and merchants in order to increase client satisfaction.

**Opportunity:** Working with Nagad offers the chance to participate in a market that is expanding, with younger customers becoming more common. Using our expertise to create innovative, intelligent, safe solutions that are customized to meet the demands of our clients is thrilling. With Nagad's potential, we have the chance to significantly alter how consumers engage with the market.

**Threats:** It's important to recognize the few possible challenges that the online payment sector faces. First off, it's getting harder for businesses to stay competitive as the number of rivals keeps rising. Second, a significant source of risk might arise from customer perceptions of online payments vs traditional banking. Thirdly, there may be a rise in transaction limitations in instances of money laundering and terrorism funding, which carries additional dangers. Last but not least, there's always a chance that media outlets could sensationalize stories or practice "Yellow journalism," which could spread fear and confusion.

### 3.2.2 Porters Five Forces Analysis

When evaluating the competitive environment facing a company, the Porter Five Forces Analysis is an excellent resource. It takes into account the threat of new competitors, the power of buyers, the power of suppliers, the threat of replacement products, and the level of competition among current competitors as five different elements that might affect a company's competitive environment. A business can develop plans to keep ahead of its competitors and obtain important insights into its competitive environment by carefully examining each of these elements.

**Threat of new entrants:** Although there is a serious risk from new competitors in the mobile banking and financing space, Nagad can overcome these obstacles with the help of reputable financial institutions and the Bangladesh Post Office as its service provider. They have a substantial user base already, so distribution routes, funding requirements, and legal restrictions shouldn't be a problem. All things considered, Nagad is well-positioned to maintain its success in this industry.

**Bargaining power of buyers:** It is true that buyers have a lot of negotiating power in this sector. This can be attributed to a number of things, including the large number of consumers, their emphasis on finding the best deal, the ease with which they can switch products, and the low switching costs. This may result in a competitive market where consumers are better able to demand higher-quality goods and services at more affordable prices. To maintain client satisfaction and guarantee success, it's critical for businesses to comprehend these elements, be prepared to bargain, and offer value.

**The threat of substitutes:** Although the financial services industry offers a wide range of alternatives, consumers might be less inclined to switch because it can be challenging to do so. Furthermore, the consumer may have to pay switching expenses and the substitute product's price efficacy could not be as advantageous as the original product's. We hope that this knowledge is useful. Do not hesitate to contact us if you have any more queries.

**Bargaining power of suppliers:** Because Nagad Ltd. is run by the Bangladesh Post Office, a government agency, supplier bargaining leverage is not a concern for it. This is a result of the Post Office's ability to obtain government resources at cost-effective rates. This provides Nagad with resources that other Mobile Financial Services (MFS) providers would not have access to, making them competitive and affordable.

**Rivalry amongst existing competitors:** Even if there isn't much direct rivalry in the market, Nagad's current rivals are nonetheless fighting for share. Even although they might not be able to directly oppose Nagad's domination, they are nevertheless looking for methods to differentiate themselves and leave their mark on the market. Because of this, a lot of the current rivals have stepped up their marketing campaigns and improved their products to differentiate themselves from the competition. Furthermore, a few rivals have started to focus on distinct segments of the market, creating a more varied range of products. Even while there may not be as much rivalry as there once was, the current players are still searching for ways to outsmart Nagad and obtain additional market share.

### 3.3 Nagad ways of Digitization.

Nagad Ltd. After coming into market have been working to digitize MFS industry in Bangladesh and have taken various initiative to simplify and smooth life's of customer as well as uddokta's and own teams. Some initiatives are given below:

#### e-KYC

Nagad revolutionized account opening in Bangladesh with its first-of-its-kind electronic Know Your Customer (e-KYC) process. This innovative system allows users to register accounts entirely through their smartphones, ditching the traditional paper-based approach notorious for its time-consuming nature.

Gone are the days of office visits and endless forms. With e-KYC, users simply capture photos of their National Identity (NID) card using their smartphones. This streamlined process significantly reduces costs and onboarding times, accelerating financial inclusion and digitalization. Unsurprisingly, other Mobile Financial Services (MFS) operators, banks, and financial institutions are rapidly adopting Nagad's e-KYC



model, a testament to its success. While the process initially faced criticism, its undeniable benefits have won over the entire financial industry, with all banks and MFS operators now embracing e-KYC.

#### **Dialing \*167#**

Recognizing that not everyone has a smartphone, Nagad partnered with mobile network operators to offer an alternative account opening method. This caters to users with basic mobile phones, ensuring their inclusion in the financial ecosystem.

Through this innovative system, users simply dial \*167# from their basic mobile phone and set up a four-digit PIN to create a Nagad account in seconds. Verification is facilitated by the highly regarded PM's ICT Affairs Porichoy App, solidifying the process as a shining example of modern technology within the financial sector.

#### **Govt. Disbursement**

Taking advantages of Nagad, during the Covid-19 pandemic, the government launched the digital process of disbursing social safety net allowances, financial grants and other assistance of the Prime Minister.

In 2020-21 fiscal year, the government disbursed different allowances, stipends and grants to 3 crore people for 8.5 crore times through Nagad with utmost transparency”

#### **Digital Bank**

Nagad Digital Bank, the first full-complete digital bank in Bangladesh, is all set to alter the local banking environment. It aims to restore traditional physical collaborations and paperwork with a widespread array of customer-centric packages.

This transformation will streamline services and promote financial inclusion, fostering an integrated financial ecosystem.

Nagad's motto is to bring unparalleled banking convenience to the fingertips of millions. Nagad is steering in a new era of comprehensive and convenient banking. Nagad is playing a vigorous role in making Bangladesh a paperless country and it will continue to attract customers through pioneering services in the coming days. Nagad has set a rare example by providing allowances and scholarships and taking the emergency financial relief from the Prime Minister to the accounts of 50 lakh families.

Many governments and non-government financial institutes are already following the implementation of the e-KYC of Nagad that has transformed the direction of financial digitalization.

Nagad accounts are ensuing started by dialing \*167# from any mobile phone in Bangladesh. This is a rare event in the world.

customers would be able to execute many of the same services suggested in physical branches, such as opening accounts, paying bills, applying for loans, checking balances, transferring money, and more.

To meet the financial needs of individuals and small businesses, Nagad will introduce digital lending. This will disrupt the financial industry. By leveraging data on customer transactions and financial behavior, Nagad Digital Bank will offer individualized credit solutions, assembly borrowing more approachable.

Bangladesh's tech sector is booming – startups, freelancers, outsourcing firms – all brimming with innovation, building a smarter nation, generating foreign currency, and driving economic growth. Yet, these very businesses struggle to secure loans from traditional banks. Why? Traditional businesses rely on physical collateral, something tech companies often lack. This unofficially sidelines them, denying access to crucial resources for expansion.

Change is on the horizon. Digital banks like Nagad are a lifeline for these tech SMEs. These new-age institutions will transform the landscape, providing the boost they deserve. Nagad will consider not just physical assets but also transaction history, patterns, and reputation – the lifeblood of tech companies thriving on foreign currency earnings. This unique approach sets Nagad Digital Bank apart.

Bangladesh is already a hub for freelancers – content creators, graphic designers, software developers, digital marketers – over 1.05 million strong according to the Bangladesh Freelancer Development Society. Nagad recognizes the inherent value of digital properties and intangible assets, often overlooked by traditional banks. The heart of many tech companies lies in their intellectual property, digital products, and online presence – factors with immense value in today's interconnected world.

Nagad's AI-based credit rating system accurately assesses financial stability, growth potential, and loan repayment ability based on a business's unique digital footprint. This inclusive evaluation allows tech companies to access much-needed capital for scaling operations, investing in R&D, and expanding their market reach.

Globally, digital lending platforms offer faster loan processing and approval times. This significantly reduces the lead time for businesses to access funding, allowing them to manage cash flow effectively and invest in growth opportunities without delays. Digital banking in Bangladesh will see a similar decrease in lead time, allowing businesses to access funding more quickly and efficiently.

Currently, securing a loan from traditional institutions involves lengthy paperwork and strict eligibility criteria, taking weeks or even months. Nagad Digital Bank streamlines the entire process – completed online with ease. Digital lending platforms often have more flexible lending criteria, meaning even struggling SMEs can access funding. This levels the playing field for smaller businesses, a significant advantage for aspiring growth companies.

Let's look at China's MYbank, a leading online commercial bank, venturing into digital lending and capturing 50% of the country's annual SME lending. Simplifying its mobile app and cloud infrastructure, MYbank embraced the "310 lending model." This groundbreaking model allows SME owners to protect collateral-free loans with just a few clicks on their mobile phones. The entire application process takes three minutes and approval comes within a second – all with zero human interaction.

Nagad focuses on four key factors that make the "310 lending model" popular: mobile-first – borrowers apply with a few taps and receive instant money upon approval; three-minute approval; no human interaction; and lastly, low default rates.

In Bangladesh, Nagad is preparing to launch digital loan products tailored to the needs of small businesses. Such lending promises customer acquisition at a low cost, minimal operational costs, and low default rates – a stark contrast to traditional bank lending. Nagad can increase credit flow to the SME sector, boosting employment, productivity, and ultimately triggering economic growth while positively impacting the livelihoods of many.

Almost 2.2 million people are included in the micro-merchant retail sector in Bangladesh. While their businesses are small individually, together they transact more than \$18.42 billion annually and interact with millions of customers every day.

The advent of digital banks is a game-changer for all businesses – tech startups, outsourcing firms, and others alike. As digital banks gain traction, we can expect to see more tech enterprises flourishing and contributing to the global economy. Nagad is at the forefront of this revolution, empowering Bangladesh's tech future.

Digital banks will operate in areas where the traditional banking system is absent, and ultimately, the accounts of digital banks will be maintained by traditional banks.

### **3.4 Nagad's Digital Horizon: Charting the Course.**

Nagad Ltd., Bangladesh's leading Mobile Financial Services (MFS) provider, has cemented its success through digitization. But their journey doesn't stop here. Let's explore potential avenues for Nagad's future digital evolution:

#### **Artificial Intelligence and Big Data Analytics:**



Nagad can leverage AI to personalize financial services. By analyzing customer data, they can offer tailored products, investment options, and budgeting tools. AI can also enhance fraud detection with sophisticated systems that learn and adapt in real-time, ensuring user and platform security. Big data analytics can be used to predict customer needs and preferences, allowing Nagad to proactively develop relevant services and offers.

#### **Integration with Fintech Ecosystems:**



Seamless partnerships with other Fintech players can expand Nagad's service offerings. Collaboration could include microloans, insurance products, and wealth management options. Developing open APIs (Application Programming Interfaces) allows third-party developers to integrate with Nagad's platform, fostering innovation and expanding service offerings.

#### **Blockchain Technology:**



Exploring blockchain technology can enhance transaction security, immutability, and traceability. This builds trust and transparency within the MFS ecosystem. Blockchain can also streamline cross-border payments, facilitating easier international money transfers for Bangladeshi expatriates.

#### **Biometric Authentication and Security:**



Advanced biometric authentication methods like fingerprint or facial recognition can be implemented for secure and convenient user access. Continuously investing in robust cybersecurity measures safeguards user data

and maintains platform integrity.

### **Evolving Customer Experience:**



AI-powered chatbots can provide 24/7 customer support, addressing inquiries and resolving issues efficiently. Gamification elements and reward programs can enhance user engagement and encourage responsible financial behavior.

By embracing these future-oriented digital advancements, Nagad can revolutionize the MFS landscape in Bangladesh. Empowering customers, strengthening security, and solidifying their position as a leading innovator in the financial technology sector are all within reach.

## **3.5 Analysis of NAGAD's Digitization Strategies**

NAGAD Ltd.'s meteoric rise in Bangladesh's MFS industry can be attributed largely to its commitment to digitization. By embracing mobile technology and digital tools, NAGAD has streamlined operations, expanded its reach, and revolutionized the financial landscape for millions of Bangladeshis. This section delves into three key pillars of NAGAD's digitization strategy:

### **3.5.1 Leveraging Mobile Technology for Customer Acquisition**

**Mobile App as the Cornerstone:** At the heart of NAGAD's customer acquisition strategy lies its user-friendly mobile app. Designed for ease of use, the app offers a one-stop shop for all monetary needs. Customers can download the app from app stores, register for accounts within minutes, and exclude the need for physically visiting branches. The app's intuitive user interface simplifies navigation, permitting users to perform transactions like cash deposits, money transfers, mobile top-ups, and bill payments flawlessly.

**Seamless Onboarding:** NAGAD's digital onboarding process frames out for its efficiency. Utilizing basic information and national ID verification, users can open accounts within the app itself. This eliminates the clumsy paperwork and extensive waiting times often associated with traditional banking techniques.

**Marketing within the App:** NAGAD influences the power of in-app marketing to promote its services and educate users. Targeted notifications and pop-up messages emphasize new features, special offers, and financial literacy tips. This strategy keeps users retained, informed, and incentivizes them to discover the app's full potential.

**Agent Network Integration:** While the mobile app serves as the principal channel, NAGAD recognizes the im-

portance of its massive agent network, particularly in catching customers in remote areas with limited digital literacy or internet access. Agents play a crucial role in assisting with app downloads, account registration, and provided that on-ground support.

**Digital Marketing Strategies:** Beyond the app, NAGAD occupies a multi-pronged digital marketing approach. Social media platforms like Facebook and Twitter are leveraged to create brand perception, promote new features, and engage with potential customers. Pointed online advertising campaigns ensure NAGAD reaches the right audience with appropriate messaging. Additionally, SMS marketing set them aside to reach a wider base and keep existing users informed about updates and promotions.

### 3.5.2 Streamlining Operations through Digital Tools

**Automation Revolution:** NAGAD has adopted automation to streamline core processes and progress operational efficiency. Monotonous tasks like customer onboarding, transaction processing, and account management are handled by automated systems, ridding up human resources for more complex tasks and customer service. This automation minimizes manual errors, decreases processing times, and allows NAGAD to scale its operations efficiently.

**Digital Data Management:** The cornerstone of NAGAD's digital transformation lies in its vigorous data management system. Customer databases, transaction records, and digital document storage solutions ensure stable and centralized access to vital information. This empowers faster decision-making, accelerates regulatory compliance, and enables data-driven insights.

**Cloud-Based Infrastructure:** NAGAD influences cloud-based infrastructure to ensure scalability, agility, and cost-effectiveness. Cloud technology grants them to rapidly deploy new services, accommodate to a growing user base, and minimize upfront investment in hardware and IT infrastructure. Additionally, cloud solutions offer superior disaster recovery capabilities, safeguarding data and confirming platform uptime in case of unforeseen circumstances.

### 3.5.3 Data-Driven Decision Making and Analytics

**Customer Segmentation and Targeting:** NAGAD harnesses the power of customer data analytics to understand user behavior and preferences. By segmenting customers based on demographics, transaction patterns, and financial needs, they can tailor products and services to specific segments. This targeted approach allows for more effective marketing campaigns, personalized financial solutions, and ultimately, increased customer satisfaction and loyalty.

**Performance Monitoring and Optimization:** Data analytics empower NAGAD to continuously monitor and optimize their operations. By analyzing user engagement with the app, transaction patterns, and agent performance, they can identify areas for improvement. This data-driven approach allows them to optimize features within the app, enhance user experience, and ensure efficient service delivery through the agent network.

**Risk Management and Fraud Detection:** In the digital realm, security remains paramount. NAGAD utilizes data

analytics to develop advanced risk management strategies and fraud detection mechanisms. Sophisticated algorithms and machine learning models analyze transaction patterns in real-time, identifying suspicious activity and safeguarding the platform from potential threats. This proactive approach ensures the security of user data and protects NAGAD's financial ecosystem.

### 3.6 Challenges and Navigating the Digital Divide:

NAGAD's success is undeniable, but its digitization strategy isn't without obstacles. Here are some key challenges and how NAGAD might address them:

#### ❖ **Bridging the Digital Divide:**

- **Limited Connectivity and Infrastructure:** A significant portion of the Bangladeshi population resides in rural areas with limited access to smartphones and reliable internet connectivity. This hinders their ability to fully utilize NAGAD's mobile app.

#### **Potential Solutions:**

- **Feature Phones and USSD Services:** Exploring alternative access methods like simplified apps for feature phones or USSD (Unstructured Supplementary Service Data) services could cater to users lacking smartphones.
- **Agent Network Expansion:** Strengthening the agent network in rural areas can bridge the digital gap by providing on-ground support for app downloads, account registration, and basic transactions.
- **Government and NGO Collaboration:** Partnering with government initiatives or NGOs focused on digital literacy programs can equip users with the necessary skills to navigate the mobile app.

#### ❖ **Addressing Digital Literacy Concerns:**

- **Limited Digital Skills:** Some users, particularly in older age groups, might lack the digital literacy skills required to navigate the mobile app confidently. This can create a barrier to adoption and full utilization of services.

#### **Potential Solutions:**

- **In-App Tutorials and User Guides:** Developing user-friendly tutorials and in-app guides within the app can provide step-by-step instructions for common tasks.
- **Agent-Led Training and Support:** Agents can be trained to provide basic digital literacy education and hands-on app usage support to customers.
- **Localized User Interface and Content:** Ensuring the app interface and user guides are available in local languages can improve accessibility and understanding for a wider user base.

#### ❖ **Data Security and Privacy Concerns:**

- **Cybersecurity Threats and Fraud:** Operating in the digital landscape necessitates robust security measures to protect user data and prevent cyberattacks.

#### **Potential Solutions:**

- **Continuous Security Enhancements:** Investing in advanced security technologies, data encryption, and regularly updating security protocols are crucial to safeguarding the platform.
- **User Education and Awareness:** Promoting user awareness through in-app notifications and educational campaigns can empower users to identify and protect themselves from potential phishing attempts or social engineering scams.
- **Transparent Data Practices:** Maintaining clear and transparent data privacy policies that outline how user data is collected, used, and protected builds trust and user confidence.

#### ❖ **Regulatory Landscape and Compliance:**

- **Evolving Regulations:** The regulatory environment for MFS providers in Bangladesh can change rapidly. It's crucial for NAGAD to stay compliant with evolving regulations to avoid operational disruptions or penalties.

#### **Potential Solutions:**

- **Dedicated Compliance Team:** Establishing a dedicated team to monitor regulatory updates and ensure the company adheres to all compliance requirements is essential.
- **Industry Collaboration:** Participating in industry forums and collaborating with other MFS providers can facilitate knowledge sharing and foster a proactive approach to regulatory compliance.

#### **Conclusion:**

By proactively addressing these challenges and continuously refining their strategies, NAGAD can ensure inclusive access to financial services, bridge the digital divide, and maintain its position as a leader in Bangladesh's MFS revolution.

### **4.1 Future of Banking Industry**

The upcoming banking industry will change rapidly because of technological advancement nowadays banking forwarding in technological advancement. Banks forward them in the cashless Transaction. Below there are some predictions of how banks will work soon-

#### **Fully Digitalize Banking System**

Digitalized banking system is based on software that connects the customer to the bank with one click. Whenever customers want, they can access their database for banking. The central database should be created for access to Government, Customer & banks.

#### **M-Banking**

Only 2-3% bank has M-banking oppportuning in Bangladesh. By 2025 it may increase 70%, and all banks will be involved in apps-based banking.

#### **Boundary-less Banking**

Transactions between customers to international banking will increase. The primary income source of Bangladesh is remittance, so there is a high chance to develop direct relations with Customers to International Bankers.

### **Accelerate Innovation through Fintech Partnerships**

Bangladesh is already involved with the MFS business, so there is a high chance that banks will create partnerships to increase their business and be involved in new developments.

### **System/Architectural Development**

A system will include which help to develop whole banking experience. Moreover, it will be more digitalized and secure banking which helps to increase efficiency and reliability.

### **Use of End-to-End Electronic Process of Banking**

Nagad goes beyond basic transactions by offering a fully digital experience. This includes paperless applications, a streamlined KYC process, and an interactive financial planner that helps users manage their money. The planner tackles everything from immediate cash flow needs to long-term goals like education and retirement. It even features robo-advisory, previously a luxury for high-end investors, and tools for trading securities, empowering users to take control of their financial future through a user-friendly platform.

### **Adopt Virtual Banking**

A virtual bank functions by permitting customers to conduct several business activities online as a service. Their overall approach would remain tied to a physical location, like a branch office. Virtual banks operate electronically. Form of Virtual Banking:

- Centralized fund management schemes
- The e-clearing service schemes
- Use of MICR (Magnetic ink character recognition code)
- An electronic fund transfer scheme
- Computerized settlement of clearing transactions.

### **Set- up Cloud Computing Services**

It includes software applications, data storage, and processing power – on-demand, over the internet. Banks or credit unions are going to use cloud computing solutions to replace or augment anything a current data center provides instead of owning modern computing infrastructure.

### **Implement Virtual Reality & Augmented Reality**

VR apps simplify the payment process and makes easier to purchase goods and products. AR and VR stepped into banking, providing customers with more excellent picture of banking functions. New systems seem to enable better tracking of the workflow procedure. With the AR application, one can see how one's funds transfer to another account.

## **4.2 Future of MFS Industry**

MFS industry is looking forward to setting up DFS (Digital Financial Services) where MFS pioneers want to give services like banks and set up the virtual bank. In below, there will be some changes in MFS Industry can be expected-

### **Interoperability**

Soon one MFS operator can transfer money to another MFS operator. They will share logistics like banking services, and transfer of funds will be more flexible at the customer level. It will decrease the competition among MFS providers.

### **Using Advance Artificial Intelligence**



Currently, artificial intelligence is being used in fulfilling the e-KYC and data analyzing sector in the MFS industry. But it is expected that in the near future, all activities will be done by artificial intelligence. All customer information, transactions, calculation of e-money, e-money creation, every single detail will have been done by artificial intelligence.

#### **Implement Digital Banking services by MFS providers.**

MFS is now stepping in partial banking services like giving profits on savings, short-term short loans, etc. Soon this industry is expected to grow like a bank; it will do all banking activities but do not replace the bank. MFS providers will work as support of the banking industry.

#### **Full Digital Literacy Achieve**

People will adopt technology and implement it in their life soon. The MFS industry will use digital literacy and train people to make life simpler and more accessible.

#### **Cashless Transaction Dominant**

E-Money will be a primary transaction medium soon. We are going to a very near cashless economy. People nowadays prefer to save money in their mobile wallets rather than holding cash. E-money is as liquid as cash, so it is a good option for replacing cash. Soon the economy will transform into a cashless economy.

#### **Enhance Cyber security.**

When it is about Transactions, the first thing that comes to mind is security. Adaption of high- level security ensures both customers and providers give services up to the notch. Now a day's hackers are the biggest threat to any industry. For MFS, it is a big challenge to secure and maintain security from hackers.

### **4.3 Comparison with Future Banking & MFS Industry**

Now a day we can predict the development in both the banking & MFS industries. Soon we can expect that opening a bank account will take only a few seconds like MFS providers. The MFS industry will join the banking industry and jointly perform their activities because banking and MFS both have the same principle and operation process. Like banking institutions, MFS also opens an account. one can save and withdraw money with both platforms. So, there are the highest probabilities that banks work with MFS providers with hand in hand. Many banks like Dutch Bangla Ltd., BRAC Bank Ltd, and UCB Bank Ltd. provide MFS services considered their subsidiaries brands. ROCKET, BKASH, and UPAY are the subsidiaries of banks. Soon both industries will work together and considers one single sector.

Digitalization is the core concept of development in these industries. There is some probable development we can expect from these two industries –

- ✚ Both industries will take advantage of Digital Literacy
- ✚ Both initiatives will work in the development of customer services
- ✚ The customer could manage funds via using one account.
- ✚ Industry goals and performance measures by same indicators
- ✚ Both industries will have a shared vision, mission, and goals.
- ✚ Bank & MFS providers will merge as one identity.
- ✚ Both industries will use their logistics to support each other.

These two industries are not competitors; they are the advanced replacement of the traditional banking system. So, we can predict that the banking industry will adopt the Cashless economy and operate with MFS providers soon.

#### 4.4 Comparison between Banking Industry Services and MFS Industry Services

Banking Industry	MFS Industry
Adopting application-based Banking	MFS provided via applications
Smart IVR service	Traditional Customer Care service
Available WhatsApp Banking ( app-based banking)	Available Facebook based customer care service
Transfer Money Via App	Money Transfer one MFS to another is not possible currently
Open DPD/ FD with e-KYC	Customers can open an account instantly via e- KYC
RTGS Fund Transfer	Fund Transfer to direct bank possible with few providers
QR payment via Visa Card	QR payment merchant payment/ cash out
Fingerprint/Password/PIN Login	PIN-based Log IN
Augmented Reality (AR) feature to locate Branches, EBL365, BRAC booth, UCB ATM & Partners	Use of Artificial Intelligence
Account Statement View and Download for up to 6 months via application	Only one-month transaction information provides via application
No deposit Limit	Has Cash In Limit
Provides cards and cheques	Only available as e-money
Implementing Chabot	Only Customer care support and Social Media Support
Integrated Maps	Location of Agents

Table 09: Comparison between Banking Industry and MFS Industry

#### Findings and Recommendations

This section summarizes the key takeaways from thesis research, provides recommendations for NAGAD's future growth strategies and further research on the MFS industry, and concludes by highlighting the significance of this study.

## 5.1 Key Findings from the Thesis Research

This thesis research on NAGAD Ltd. and the MFS industry in Bangladesh has yielded valuable insights into the impact of digitization on financial inclusion. Here's a concise summary of the key findings:

- **Financial Inclusion Through Digitization:** NAGAD's mobile app and digital services have demonstrably increased access to financial services for previously unbanked populations, particularly in rural areas. This has empowered individuals and fostered economic growth.
- **Effectiveness of Customer Acquisition Strategies:** NAGAD's multi-pronged approach, combining a user-friendly mobile app, a robust agent network, and targeted digital marketing, has been instrumental in customer acquisition. Each element plays a crucial role in reaching diverse user segments.
- **Data-Driven Decision Making:** Utilizing data analytics for customer segmentation, performance monitoring, and risk management has enabled NAGAD to optimize operations, personalize services, and mitigate security threats. Data-driven insights have become a cornerstone of their success.
- **Challenges and Opportunities:** Challenges like limited internet connectivity, digital literacy gaps, and evolving regulations highlight the need for continuous adaptation. However, these challenges also present opportunities for innovation and partnerships to bridge the digital divide and reach new user segments.
- **Competitive Landscape:** Analyzing the competitive landscape reveals key players and emerging trends in the MFS industry. Understanding these trends allows NAGAD to stay ahead of the curve and refine its strategies to maintain its market position.



## 5.2 Significance of the Study and its Contribution

This study contributes to a deeper understanding of NAGAD's role in Bangladesh's MFS revolution and the impact of digitization on financial inclusion. Here's its significance:

- **Understanding NAGAD's Success:** The study provides an in-depth analysis of NAGAD's digitization strategies, highlighting best practices in customer acquisition, operational efficiency, and data-driven decision making. This knowledge base can be valuable for other MFS providers looking to replicate success.
- **Informing Future Growth Strategies:** The recommendations for NAGAD's future growth strategies address potential new financial service offerings, user experience enhancements, agent network

strengthening, and strategic partnerships. Implementing these recommendations can propel NAGAD's continued growth and impact.

- **Promoting Financial Inclusion:** By emphasizing the positive impact of NAGAD's services on financial inclusion, the study underscores the importance of MFS in fostering economic development and empowering unbanked populations.
- **Guiding Further Research:** The recommendations for further research on the MFS industry open doors for deeper exploration of topics like MFS's role in empowering micro-entrepreneurs, gender gap analysis, and the environmental sustainability of the industry. This can contribute to a more comprehensive understanding of the MFS ecosystem.

### 5.3 Recommendations for NAGAD's Future Growth Strategies

Based on research findings, propose actionable recommendations for NAGAD to further enhance its growth and impact:

**Expanding Financial Service Portfolio:** Need potential new financial services or products NAGAD could offer through its mobile app, catering to the evolving needs of its customer base.

**Enhancing User Experience:** NAGAD can improve the user experience of its mobile app, such as additional features, localized content, and simplified functionalities for users with limited digital literacy.

**Strengthening Agent Network:** To further strengthen NAGAD's agent network, including capacity building programs, performance incentives, and expanding reach in underserved areas.

**Strategic Partnerships:** Suggest potential partnerships with other institutions, such as NGOs, telecom companies, or government agencies, to further promote financial inclusion and reach new customer segments.

**Investing in Cybersecurity Measures:** Ongoing investments in advanced security technologies and data encryption to ensure the continued protection of user data and platform security.

**Staying Ahead of Regulations:** NAGAD should stay proactive in navigating the evolving regulatory environment for MFS providers in Bangladesh. This might involve dedicated compliance teams or industry collaborations.

### 5.4 Recommendations for Further Research on MFS Industry.

The MFS industry is constantly evolving. Here are some potential areas that could recommend for further research to build upon this study:

**Impact of MFS on Micro-entrepreneurs:** Mobile Financial Services (MFS) have revolutionized the way micro-entrepreneurs operate. They provide access to financial services like savings, money transfers, and loans, boosting financial inclusion. MFS also streamlines transactions, expand customer reach, and reduce costs, leading to increased efficiency, profitability, micro loans, and business growth for micro-entrepreneurs.

**The Role of MFS in Disaster Relief and Financial Resilience:** MFS have become increasingly important in disaster relief and financial resilience efforts. MFS can help reduce reliance on cash, which can be lost or stolen during disasters. Transactions are often tracked electronically, improving transparency and accountability in aid distribution. MFS play a crucial role in mitigating the financial impact of disasters and promoting long-term financial resilience.

**The Future of MFS and Emerging Technologies:** The future of MFS is likely to be shaped by the continued adoption of emerging technologies such as artificial intelligence, blockchain, and the Internet of Things (IoT). These technologies can further enhance the efficiency, security, and reach of MFS, leading to even greater financial inclusion and innovation in the financial services sector.

**The Gender Gap in Financial Inclusion:** Women are often extremely excluded from the formal financial system. This can be due to factors such as limited access to education, property rights, and mobile phone ownership. MFS have the potential to bridge this gap by providing women with access to financial services in a convenient

and secure way. However, gender-specific challenges such as digital literacy and social norms still need to be addressed to ensure full financial inclusion for women in Bangladesh.

**The Environmental Sustainability of MFS:** Mobile Financial Services (MFS) can contribute to environmental sustainability by reducing paper usage, promoting financial inclusion, and encouraging cashless transactions. This can lead to less physical money printing and transportation, reducing environmental footprint. However, it's important to consider the energy consumption associated with running digital infrastructure and potential e-waste generation.

By analyzing NAGAD's strategies and their impact, this study contributes significantly to the ongoing dialogue about MFS and its role in financial inclusion. The findings and recommendations offer valuable insights for NAGAD's future direction, inspire further research on the industry, and ultimately, contribute to the financial empowerment of individuals and economic growth in Bangladesh.

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