Report On

Analysis of the Growth in E-wallet Adoption and Assessment of Risk Management Strategies to Ensure Sustainable Growth of MFS Industry: Insights from Nagad Ltd.

By

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21304039

An internship report submitted to the BRAC Business School in partial fulfillment of the requirements for the degree of
Bachelor of Business Administration.

Brac Business School
Brac University
July, 2025

Declaration

It is hereby declared that

1. The internship report submitted is my/our own original work while completing degree at Brac University.
2. The report 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 report does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. I/We have acknowledged all main sources of help.

Student's Full Name & Signature:

Nurunnesa Begum Momo
21304039

Supervisor's Full Name & Signature:

Supervisor Full Name
Designation, Department
Institution

Letter of Transmittal

Mohammad Mujibul Haque, PhD

Professor and Dean,

Brac Business School

BRAC University

Kha 224 Pragati Sarani, Merul Badda, Dhaka 1212, Bangladesh.

Subject: Submission of Internship Report

Dear Prof. Rahman:

With due respect, I am honored to state that I have finished my internship report on "Analysis of the Growth in E-wallet Adoption and Assessment of Risk Management Strategies to Ensure Sustainable Growth of MFS Industry: Insights from Nagad Ltd." This report includes my overall experience and observations while working with Nagad's Internal Audit department as an intern.

I have tried my best to give practical and useful information while not disclosing confidential information.

Therefore, I really hope that this report will fulfil your expectations.

Sincerely yours,

Nurunensa Begum Momo

21304029

BRAC Business School

BRAC University

Date: July, 2025

Non-Disclosure Agreement

This agreement is made and entered into by and between Nagad Ltd. and the undersigned student at Brac University Nurunnesa Begum Momo. This report on "Analysis of the Growth in E-wallet Adoption and Assessment of Risk Management Strategies to Ensure Sustainable Growth of MFS Industry: Insights from Nagad Ltd." is an original work done by me under the supervision of **Dr. Mohammad Mujibul Haque,** Professor and Dean, Brac University, and my on-site supervisor **Md. Sha Newaj Chowdhury,** Senior Manager, Internal Audit, Nagad Ltd.

I, Nurunnesa Begum Momo, will maintain professionalism and will not publish any confidential information of the company even after my internship contract ends with Nagad Ltd.

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Nurunensa Begum Momo

21304029

BRAC Business School

BRAC University

Acknowledgement

First and foremost, I want to convey my gratitude towards my creator Allah SWT for blessing me with good health and wealth, education, and supportive people. Secondly, I would like to express my gratitude to my university supervisor **Dr. Mohammad Mujibul Haque** for giving proper guidance to successfully complete this paper. Next, I thank my university co-supervisor **Dr. Abu Saad Md. Masnun Al Mahi** for giving me additional guidance to complete this paper.

Furthermore, my earnest gratitude towards my on-site supervisor **Mr. Md. Sha Newaj Chowdhury** for his continuous support throughout the internship. Moreover, I thank **Mr. Sayed Abrar Rafid** for giving his guidance and time. Besides, I would like to express my sincere thanks to Mr. Muhammad Anisur Rahman Bhuyan, divisional head of Internal Control Compliance & Internal Audit, and Mr. Monir Hossain, departmental head of internal audit for having faith in my abilities. Additionally, I am thankful to my university senior **Ms. Fatima Hossain Samiha**, and my other colleagues **Mr. Shariyar Sajid,** and **Ms. Rudaba Tasnim Tahrima** for giving me support and making my internship journey memorable.

In addition, a big thanks goes to my friends**: Ikram, Saqilan, Amreen, Fatema, Talbi, Tasfia, and Musa** for making beautiful memories in my undergrad journey.

Last but not the least, my heartfelt gratitude goes to my parents: **Ms. Shamsun Nahar, and Mr. Saleh Zaman Selim;** my brother **Mr. Ak Pronoy,** sister-in-law **Ms. Tabassum Akhter,** niece **Ms. Ainun Zariya Kader,** and cousins **Ms. Aaiman Haque** and **Ms. Habiba Haque** for being my support and strength, which helped me to navigate every challenge in my life.

Executive Summary

This research reflects my observations and experiences while working as an intern at Nagad Ltd. It gives an overview of the MFS industry, forecasts the sales growth, and analyzes the risk management techniques which are required to ensure sustainable growth.

In chapter 1, I have narrated my internship experience at Nagad Ltd, which includes my role, contribution, and the challenges I faced at Nagad Ltd. I had excellent learning because of my supervisor and other colleagues. However, I faced difficulties due to prolonged sitting, and I recommended Nagad to arrange standing desks and treadmills for employees.

In chapter 2, I have discussed how the existing practices related to management, marketing, financial, accounting, operation management and information practices are contributing to grow the business. Lastly, a competitive analysis has been done through SWOT analysis and Porter's 5 forces. Afterwards, this section of the report highlights the strengths and opportunities of Nagad, which made it a Unicorn company within a short time. Lastly, I provided some recommendations based on my observation and perspective.

The 3rd chapter includes the project part. Here I have projected the growth of E-wallet, along with how proper risk management techniques help to ensure sustainable growth, and how sales growth and risk management are positively related. I gave recommendations for the growth of the MFS industry, and to manage its risks more efficiently.

Therefore, through this research I have understood that MFS is a growing industry, and the risk management team plays a significant role for the growth of this industry. Hence, I plan to build a long-time career in the MFS industry.

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List of Acronyms

MFS	Mobile Financial Services
MFSP	Mobile Financial Service Providers
IA	Internal Audit
AML	Anti Money Laundering
MNO	Mobile Network Operator
ICC	Internal Control & Compliance
HR	Human Resource
DKYC	Digital Know Your Customer
USSD	Unstructured Supplementary Service Data
HRBP	Human Resources Business Partner
PIP	Performance Improvement Plan
CSR	Corporate Social Responsibility
BPO	Bangladesh Post Office
CIPC	Customer Interest Protection Center
AI	Artificial Intelligence

Chapter 1: Overview of Internship

1.1 Student Information

Name: Nurunnesa Begum Momo

ID: 21304039

Program: Bachelor of Business Administration (BBA)

Major: Finance

Minor: Accounting

1.2 Internship Information

1.2.1 Period, Company Name, Department, Address

Period: 4 months

Company Name: NAGAD Ltd.

Department: Internal Audit

Address: Delta Dahlia Tower (Level 14), 36, Kemal Ataturk Avenue, Banani, Dhaka-1213.

1.2.2 Internship Company Supervisor's Information

Name: Md. Sha Newaj Chowdhury

Designation: Senior Manager -Internal Audit, Internal Control & Compliance, Nagad Ltd.

1.2.3 Job Scope

- Helped in drafting the Internal Audit report.
- Verified the documents recorded in ERP software by cross-checking them with the manual documents.
- Reviewing the procurement process from the source documents of Supply Chain Management. For instance, the user requirement to purchase order, GRN to invoice cross-matching.
- Coordinating and documenting departmental meetings, and incoming and outgoing departmental Emails.
- Performing several audit support tasks (e.g., scanning, cross checking, and formatting reports to maintain accuracy and consistency).
- Supported the Anti Money Laundering (AML) team through categorizing different fraudulent cases into distinct categories.

1.3 Internship outcomes

1.3.1 Student's contribution to the company

During my 4 months of internship period, I have tried my best to fulfil my responsibilities on time. For instance, in the Procurement to Purchase (P2P) audit project I have checked all the relevant documents and tried to provide my full attention to complete the work without error. Furthermore, I have worked during drafting the internal audit report, where I wrote the detailed observations, identified the probable impacts, and provided some recommendations. My on-site supervisor, Mr. Sha Newaj Chowdhury, has reviewed those observations and recommendations, and he praised me for identifying some major issues.

1.3.2 Benefits to the student

Firstly, none of the employers and permanent employees treat the intern as an outsider or temporary employee, rather they give value and respect to the interns as they provide to their permanent employees and consider the interns as a part of their team. Secondly, department heads from distinct departments take several training sessions and provide certificates, and from these the interns get detailed knowledge about the overall MFS industry and how different departments work to smoothly fulfill their responsibilities towards Nagad. Thus, Nagad ensures that all the interns get proper knowledge on MFS industry and the operational activities of Nagad. Furthermore, they provide proper technical support (e.g., laptop, IT services) to all the interns to smoothly conduct their daily activities at Nagad. Besides, Nagad provides basic medical services to its permanent and contractual (e.g., interns) employees. Therefore, in Nagad the environment is friendly, and it tries to make the interns motivated through on-time salary payment, smooth IT and medical services, along with taking insightful training sessions. Lastly, if the interns give satisfactory performance during their internship period, then based on the job availability they get an offer to become a permanent employee of Nagad Ltd.

1.3.3 Difficulties faced during the internship period

This is my first full time job, and sitting for a long time was difficult for me initially. Consequently, after 1 month I had sciatica pain because of prolonged sitting and maintaining bad posture. During this condition, I had to take a month of sick leave. I am grateful to Nagad for approving the sick leave. After taking a one-month break, the condition of my health improved, and I joined Nagad again. Secondly, Nagad is a privately owned company with the subsidiary of BPO, and the inside information is highly confidential. Thus, I faced difficulties while writing chapters 2 and 3 of this report, and had to rely on interviews, training sessions, my personal experience, and the already published new articles and academic papers. Furthermore, the female prayer room is not in good condition, and there is no separate place for female ablation, which is a problem for the females who pray regularly. However, the on-site supervisor and other employees were cooperative, and they gave their time and effort in explaining the work process, which enhanced my knowledge about how the internal audit works in Nagad.

1.3.4 Recommendations (to the company on future internships)

It would be better if Nagad arranges some standing desks and desk treadmills on every floor, where employees can work while standing or walking. It will reduce the health problems that can cause prolonged sitting, and employees will feel energetic for light exercise (e.g., walking). Secondly, a well-spaced prayer and ablation area can be arranged for female employees. Furthermore, interns do not have access to the ERP software but limited access to the interns in the ERP software can enhance their knowledge about Nagad's real-time operations. Lastly, several training sessions have been taken by different department heads to all the employees from different departments, but the legal and compliance department did not conduct any training sessions. Thus, it would be better if Nagad arrange a training session about how the Anti-money Laundering (AML), and Internal Control & Compliance (ICC) department work. Hence, the interns will get insightful information about the activities of the AML and ICC because these two departments are crucial for an MFS provider company.

Chapter 2: Organization Part

2.1 Introduction

This section includes a detailed discussion of the management, marketing, and financial practices of Nagad Ltd. Furthermore, it gives an overview of the company's daily activities to run the business smoothly. Moreover, it analyzes the methods and techniques that are required to become a Unicorn company. Additionally, Nagad’s operation management and information system practices are discussed in this part. The core intention behind these discussions is to give an overview of these concepts and to give effective recommendations for the improvement of the company. Lastly, a competitive analysis has been done through doing SWOT analysis and porter’s 5 forces.

2.1.1 Objective:

The overall objective of chapter 2 is to provide an overview of Nagad Limited and give an analysis of Nagad’s operational activities.

The specific objectives of this chapter are:

- Identifying the organization’s leadership style, and how it helps the organization to work efficiently.
- How HR works to motivate the current employees, and how they do talent acquisition and training.
- How Nagad’s marketing and branding strategy made it a unicorn company.
- Detecting the weakness in its marketing activities and giving suggestions accordingly.
- Conducting a competitive analysis to find out its strength, weakness, threat, and opportunities.

- Evaluating the past achievements, and some publicly available financial news to predict its future growth.

2.1.2 Scope:

This section of the report will give a detailed understanding of the company's current HRM practices, marketing practices, operation management and information system, financial performance, and accounting practices. I have completed this section by interviewing the employees from different departments. Hence, the Nagad team will get a comprehensive overview about how its current practices are contributing to the company's growth. Besides, I gave recommendations based on my perspective and observation, which will help them to understand the gaps in their current practices. This portion of the report can be made more rigorously by the company or an employee who has long-term experience with Nagad Ltd. Lastly, I did the industry and competitive analysis through SWOT and Porter's 5 forces, which will help Nagad Ltd. to understand its position in the market in comparison to rivalries. Additionally, I provide some recommendations, which might help the company to perform better in the market.

Therefore, in this section Nagad Ltd. will get an overview of its current practices and how these practices are helpful for the company. Moreover, they can act according to my observations and recommendations, along with their own observation and opinion. Apart from that, this research will give insightful information to the individual who is interested in knowing about Nagad Ltd. and the strategies that it follows.

2.1.3 Methodology:

This portion of the research utilized both the secondary and primary information. For secondary data, it explored previously published academic literature, studies, and news articles on MFS.

Secondly, primary data collection has been conducted through interviewing the employees of distinct departments. Moreover, several training sessions have been taken by the department heads of Nagad, and that information is incorporated as primary data for this section of the report.

2.1.4 Limitations:

Nagad is not a publicly listed company. Thus, inside information is highly confidential. Hence, no sensitive information will be disclosed, every inside information will be utilized with the permission of the head of Internal Control Compliance & Internal Audit. This is one of the limitations of this research that some confidential information cannot be disclosed. Consequently, the section on financial performance and accounting practices does not contain enough information. Furthermore, the time frame 4 months internship might not be enough to conduct accurate observations; hence, some final judgement has been made without thorough analysis.

2.1.5 Significance of this study:

Through doing this research I got an in-depth knowledge about the MFS industry, and the operational and supporting activities of Nagad Ltd. I have explored the techniques that Nagad Ltd. utilized to become the Unicorn and 2nd largest MFS company in Bangladesh. Additionally, this paper has analyzed the strength and opportunity for Nagad, along with the threats and weaknesses. Hence, this report is important to the company as well because through this research paper they can find out about their areas of improvement and can take steps accordingly. Besides, the general readers of this paper will get knowledge about the MFS industry and Nagad. As MFS is a new and growing industry, having knowledge of this industry will be beneficial for the readers.

2.2 Overview of the Company

Nagad Ltd is a leading mobile financial service (MFS) provider in Bangladesh, it launched on 26 March 2019, and within 2023 it was valued at 1 billion USD, and became a unicorn company. It provides a one-stop solution for the customers because customers can make disbursements, payments, money transfer etc. Nagad's main product is E-money. Tanvir A Mishok was the founder and former managing director of Nagad, received the "Fastest to Unicorn Award" at Bangladesh Startup summit 2023 (The Daily Star, 2023). Nagad's incredible strategic planning made it a successful unicorn startup. According to the Head of Pricing, Campaigns & Business Planning, Sirajus Salekin, low cash out charge, Digital Know Your Customer (DKYC), and during that time the well-featured app helped Nagad to attain remarkable customer attention within a short period. Before Nagad, the existing MFS companies used to provide their services through Unstructured Supplementary Service Data (USSD), and Nagad started providing its services through both the USSD and app and launched DKYC for the first time in the market. Besides, so far, its customer service point has covered 62 districts, and yet to cover Luxmipur and Moulvibazar . Moreover, it has 766 points to provide customer service to their agents, where agents can submit the customers queries or problems through a link, and Nagad's employees solve the problems directly via calling the customers.

2.2.1 A visual of the company's core business practices of Nagad Ltd:

Nagad sells E-money, but it is not directly connected to customers or agents, rather it has a direct connection with the distribution house. The distribution house is an external party who connects Nagad with agents through DSO or DSS. The MFS providers select the distributors based on demography and geography. DSO are the employees under the distribution house. DSO directly communicates and works with the agents, and agents provide the services to the customers.

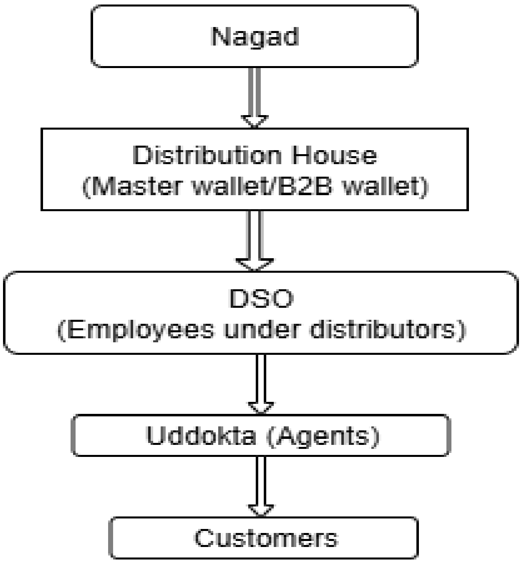

Figure 1: Workflow Diagram

2.2.2 Achievement of the company:

Within 5 years, it acquired more than 9 crore active customers, 45 thousand agents. Besides, in March 2025, it achieved its record-breaking monthly transaction amount of 34,000 crore BDT (The Daily Star, 2025).

The following awards have been received by Nagad:

Award name	Year	Description
Best Brand Award	December, 2023	The Bangladesh Brand Forum honored this award to Nagad by considering Nagad as a most emerging brand of Bangladesh.
Digital Business Award by Mastercard	November, 2023	Nagad received this award for giving seamless service of credit card bill payment to its customers.

Best Payment Solution Award	November, 2023	The E-Commerce Association of Bangladesh presented this award to Nagad for providing smooth E-commerce payment service.
Visa Payments Excellence Award	October, 2023	Nagad received this award for giving cyber secured services, money transfer service to visa debit cards, and bill payment service of credit cards.
Bangladesh Startup Summit Award	July, 2023	For becoming a Unicorn company in a very short period.
WASA Bill Collection Award	March, 2023	In the fiscal year of 2021-2022, Nagad secured the first position in Wasa bill collection.
Commward by Bangladesh Brand Forum	August, 2022	Firstly, Nagad won the Silver Award in maintaining outstanding public relation (PR) activities. Secondly, it received several Bronze Awards in the category of copywriting, film craft, music, art direction.
Most Innovative Digital Financial Service Brand	April, 2022	The UK based global brands magazine honored Nagad by giving this prestigious title.
Digital Marketing Award	December, 2021	Received this award for conducting the innovative “T20 Quiz” campaign.
Bangladesh Fintech Award	November, 2021	For boosting the financial inclusion of Bangladesh by successfully operating an innovative MFS company.

Mastercard Excellence Award 2021	November, 2021	In the fiscal year of 2020-2021, Nagad received this award for providing Mastercard’s online payment services to the business persons or merchants.
Commward by Bangladesh Brand Forum	August, 2021	Received bronze award for showing efficiency, and silver award for ensuring integrated marketing communication during the campaign called “Shob Hobe Nagad-e”
Global Economics Awards 2021	March, 2021	For being innovative and launching the mobile finance service (MFS) through a mobile app. Moreover, Nagad is recognized as the world’s fastest growing MFS company.
Business Tabloid Awards	December, 2020	For being the best MFS company in Bangladesh in the year of 2020.
WITSA Award	November, 2020	For enhancing the financial inclusion and digital connectivity (e.g., E-wallet; translation of E-money) in Bangladesh.
InclusiveFintech50	October, 2020	For being the best fintech startup in Bangladesh.

2.3 Management Practices:

2.3.1 Overview of Top-line management:

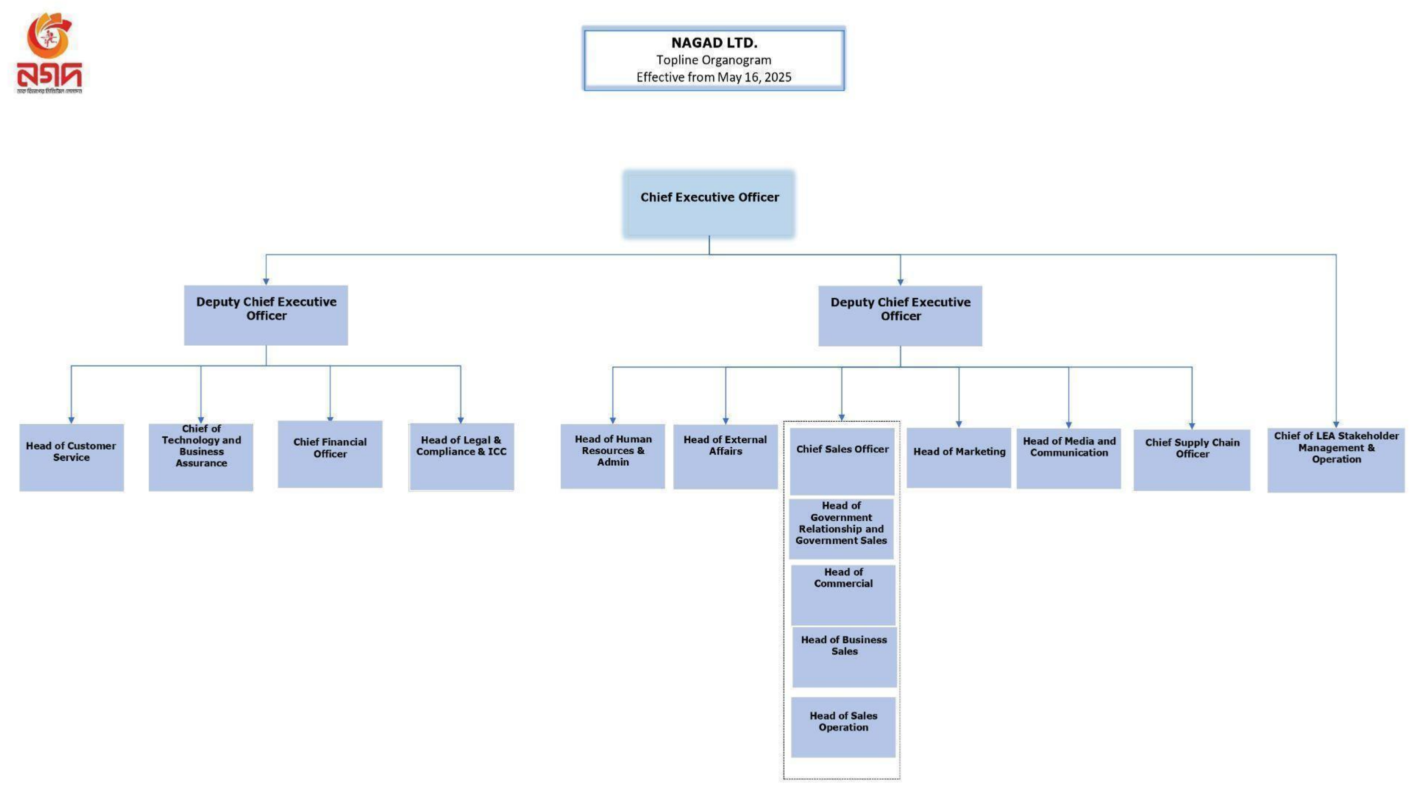

Figure 2: Top Line Organogram of Nagad Ltd (Effective from 22 August, 2024)

The above organogram illustrates the top-line hieratical structure of Nagad.

2.3.2 Leadership Practices

Nagad practices participative leadership style throughout the company. Employees from all levels share their perception and ideas without any hesitation. Consequently, all the departments conduct regular meetings to efficiently fulfill their agendas. Also, they conduct regular cross functional meetings to share the opinions of distinct departments. Employees from senior to junior level get equal rights to share their opinion, even the interns do regular participation in the meetings; and they are encouraged to share their perspective or to give recommendations. Furthermore, interns participate in departmental and cross functional meetings. Moreover, generally they maintain a hierarchy while reaching out to the top management. For instance, to communicate anything the intern will inform their department head and their department head will inform the higher authority. However, the junior employees (e.g., interns) are welcome to talk with the higher authority as well, but the company tries to maintain the formal hierarchy while reacting to higher authority with a problem or idea. Also, the employees conduct both verbal and written (e.g., email) conversation to ensure efficient conversation.

According to me, the participative leadership style encourages the employees to work efficiently, and employees are motivated and happy. Employees can share their ideas without any hesitation, which helps to gather ideas from different perspectives. I believe, one of the reasons behind becoming a Unicorn MFS company was the leadership style of Nagad. Regular departmental meetings and cross functional meetings empower Nagad to operate efficiently.

2.3.3 Human Resource (HR) Planning Process of Nagad Ltd.

Recruitment & Selection Process:

If additional manpower is required, then the heads from different departments convey their requirements to the HR team. In the case of internal recruitment, the HR head and heads from the required departments conduct one or multiple interviews based on the severity of the position. In case of external requirements, the HR team gives posts on LinkedIn for the vacant positions. Those posts include the details of the job responsibilities and eligibility criteria. Afterwards, the HR team shortlists the applications and sends the shortlisted applications to the respective department heads. Once more, the department heads check and shortlist the applications and send those CVs to the HR team. Next, the HRBP team calls the shortlisted applicants for a physical or online exam. If the applicants do satisfactory performance during the exam, then they get a call for interviews. There might be one or multiple interviews based on the position, and those interviews will be taken by the HR head, head of the respective departments, CXO, and EDs. Nagad tries to conduct fair and accurate judgement before onboarding an employee.

Compensation System:

Nagad's compensation includes festival bonuses, basic salary, performance bonus based on individual employee's KPI, free health care services, car and transportation etc. Moreover, the employees receive compensation based on their job grade. The employees get quarterly based incentives based on their performance. The contractual employees get salary according to their contract, and do not receive any additional compensation. Moreover, if an employee performs unsatisfactory performance, then he/she will not receive an incentive until their performance improves. Apart from that, in a year an employee can get 14 paid sick leaves and 10 paid casual leaves. Furthermore, Nagad provides paid maternity leave for 6 months.

Training & Development Initiatives:

Nagad has a separate training and development team, and this team ensures proper training for both the onboarding and existing employees, even for interns they arrange several training sessions, which are conducted by the department heads. In the internship session of Spring 25, multiple training sessions have been taken by the department heads, such as training sessions on business development and strategic planning, ABCs of MFS training, sessions on organizational structure & key functions, business development and strategic planning, and customer service. These trainings have been conducted to assure that after this internship period the interns will have an overall knowledge about the MFS industry and how Nagad works. Apart from that, the respective supervisors and line manager take training sessions, which enable the employees to remain up to date with recent technology and information. Mostly, the soft skill training sessions are universal for all the employees, and some functional training courses are taken for specific employees based on the qualification requirement for their job. The arrangements of these training sessions are not only for their permanent employees, but also for their contractual employees (e.g., interns). Therefore, the training and development team tries to ensure that every employee has proper knowledge and skill to perform their duties.

Performance Appraisal System

An interview has been taken from the HR Business Partner (HRBP), Zeba Mubashera, she stated that the performance appraisal has been reviewed by both the line manager and HRBP. Mostly, the performance appraisal has been executed quarterly by HRBP along with the line manager. First, the line manager evaluates an individual employee’s performance, and after that the line manager sends the details of performance appraisal to the HRBP, and then HRBP does an evaluation and acts accordingly. The line manager does in-person evaluations, and the HRBP does it through ERP software. Nagad has its own ERP software, where it restores its employees and operational data. If the evaluation shows that the employee has potential and deserves performance appraisal, then that employee will receive appraisal based on company policy, company performance, and individual employee's efficiency. On the contrary, a performance improvement plan (PIP) will be organized for those employees whose performance is below the expectation.

2.4 Marketing Practices

2.4.1 Marketing strategy

Nagad does not have the first-mover advantage, it came to the market after 8 years and acquired a large market segment of 9 crore customers. It became the second largest MFS provider in Bangladesh because of its efficient marketing strategy and strategic plans.

Moreover, Rocket has the first-mover advantage, but Nagad grasped more shares than Rocket. Additionally, Bkash is the first market player in the MFS industry in Bangladesh, but the market share between Nagad and Bkash does not have a significant difference.

Figure 3: Service time picture of BPO Nagad customer's service points

As stated above, Nagad is a subsidiary of BPO, and BPO enables it to reach the rural and people with financial illiteracy or inadequate financial knowledge, which gives the competitive advantage to Nagad.

Furthermore, Nagad does its marketing through influencers (e.g., social media influencers, cricketers). In 2021, the famous cricketer Tamim Iqbal became the campus ambassador of Nagad (Prothom Alo, 2021). Additionally, other cricketers (e.g., Sakib Al Hasan, Mehedi Hasan Mirza) from the Bangladesh cricket team assisted multiple campaigns of Nagad.

Figure 4: BMW campaign

The BMW campaign was the most hyped one, where Tamim Iqbal went to the winner's house to give the car.

Moreover, Nagad does traditional marketing through promoting via billboards, festoon, and solar billboards was one of the innovative marketing strategies of Nagad; it demonstrates that Nagad is conscious about Corporate Social Responsibility (CSR).

Figure 5: Solar Billboards

Source: The Business Standard, 2022.

In the next sub-chapters, the report will explore more about the marketing practices of Nagad.

2.4.2 Target customers, targeting and positioning strategy:

Nagad's target market segment is low-income individuals, along with rural residents. Nagad launched its company with the slogan of "Nagad: Cash out with the lowest rates", and it charges low compared to its competitors. The former telecom minister Mustafa Jabbar stated that their main target was to introduce the rural citizens with financial services, and the marginal people are the target customers of Nagad. Thus, according to him, Nagad can play a significant role in including the marginal people in financial services (e.g., banking service, E-wallet) (Tasreen, 2020). Furthermore, it targeted religious people, and introduced Nagad Islamic. However, the Nagad Islamic and the mainstream app function separately to protect the interest of different customer segments. Therefore, Nagad organizes its marketing in the mosque, and during islamic events to raise awareness and acquire the customers of Nagad Islamic.

Since the beginning, Nagad said that it provides the lowest charge for cash out and other services, which conveyed a very clear positioning strategy that it follows a low-cost strategy. Besides, the company positioned itself as a Bangladeshi native brand by giving the company's main slogan of "Deshi Nagad e Beshi Labh", it will acquire the attention of the patriotic citizens because the tagline articulates that Nagad is a native company and will have a significant contribution in the country's economic growth.

Hence, Nagad positioned itself as a native company, which charges the lowest fee and concerns the interest of religious people as well. Nagad successfully manages its business through serving its target segment of rural and marginalized people, low-income households, religious people, and patriotic citizens.

2.4.3 Marketing channels

In a broader sense, Nagad has both the paid and non-paid marketing channels.

Paid marketing channels:

- ➢ Traditional marketing: billboards, radio and television advertisements, ads through printing newspapers and so on.
- ➢ Digital marketing: Google ads, search engine optimization, push notifications through app, customized SMS and Email, and marketing via influencers.
- ➢ Collaboration & partnership: It is a subsidiary of BPO and provides services through BPO points. Secondly, it collaboratively does promotional activities through mobile network operators (MNOs).
- ➢ Campaigns: Nagad regularly launches unique campaigns to attract customers. The campaigns are related to gifts and cash-back offers. The Iphone 15 and BMW campaigns were the most famous campaigns of Nagad.

Non-paid marketing channels:

- ➢ Organic reach through social media platforms.
- ➢ Word of mouth: Nagad has many loyal customers in the market, and the recommendation from those customers is the most precious asset for Nagad.
- ➢ Public relations
- ➢ Nagad app & official website
- ➢ Agents are merchants

The next sub-chapter will explain more about how Nagad executes its advertising and promotion strategies through the above-mentioned marketing channels.

2.4.4 Advertising and promotion strategies

As stated above, Nagad’s main target customer is rural and low to mid income people, and it established its advertising and promotion strategies accordingly. Most of its promotional ads are related to cashback and other offers, which will attract the low to mid-income citizens. Furthermore, most of its promotional activities are in Bangla language, which gives the sense of local product. The following steps elaborate the advertising and promotional strategies of Nagad:

- **Digital Marketing:** Nagad practices social media marketing through their own Facebook page, Instagram, YouTube, and LinkedIn. Also, in its marketing department it has permanent employees who are influencers as well, and those employees are actively involved with social media marketing. Secondly, Nagad sends push notifications through its app, along with SMS marketing to communicate promotional offers, on-going campaigns, and awareness messages. These push notifications and messages are customizable based on the customer’s lifestyle.

Figure 6: Push notification

Figure 7: SMS Marketing

- **Traditional marketing or mass media advertisement:**

Nagad does its mass media marketing through television advertising. It does paid marketing through renowned local television channels (e.g., Shomoy, Independent) to convey its messages to the existing and potential customers. Furthermore, through radio advertisements it delivers its message to rural people. Besides, it does newspaper advertising to reach the elderly citizens. Lastly, it actively performs traditional marketing through displaying banners, billboards and festoon in the center points of Dhaka and other rural areas.

Figure 8: Billboard advertisement of Nagad

Figure 9: Newspaper advertisement

- **Collaboration with mobile phone operators and other companies:**

  Nagad does promotional activities through mobile network operators (MNOs) (e.g., GP, Robi, Banglalink), along with local companies (e.g., Walton, Chaldal). Moreover, collaboration with the MNOs is needed to execute the regular operations of Nagad. For instance, customers use the Nagad app and USSD of Nagad through MNOs.

Figure 10: Collaboration between Nagad & MNOs to convey the cash-back offers of Nagad.

- **Influencer Marketing:**

  Nagad advocates its promotional messages through famous faces (e.g., cricketers, actors, social media influencers). The renowned cricketer Tamim Iqbal is the brand ambassador of Nagad. Additionally, Chanchal Chowdhury, Sakib Al Hasan, Mosharaf Karim and many celebrities did promotional advertisements for Nagad.

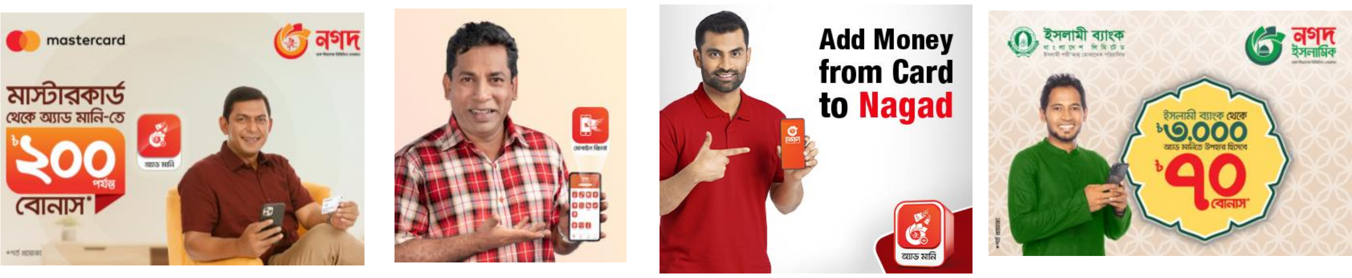

Figure 11: Celebrities were representing Nagad for promotion.

- **Campaigns:**

Nagad regularly organizes several kinds of campaigns to attract the potential buyer and increase the retention rate of existing customers. Those campaigns motivate the customers to use Nagad more. The Iphone 15 and BMW campaigns were the most successful campaigns of Nagad.

Figure 12: Some successful campaigns of Nagad

- **Event organization:**

Nagad does mass marketing by participating in events and fairs. Previously, Nagad has participated in career fairs, Dhaka University book fair, ISP carnival, and so on.

Figure 13: Event participation.

- **Non-paid marketing through agents (Uddokta) and marchants:**

  In Nagad, agents are called by Uddokta, and those Uddoktas perform non-paid marketing for Nagad.

Figure 14: Service time picture of agent points

2.4.5 Current products, prices, and places:

The following table includes the current products of Nagad Ltd, and the prices of those products. It demonstrates that the main revenue comes from cash out charges, and when customers transfer money from Nagad account to Bank account. Most of its services are free of cost, but the money is kept in a scheduled commercial bank; also, some portion of it can be invested into government securities.

Product Names	Fee (App) on per 1000 BDT	Fee (USSD) on per 1000 BDT	Limit (Minimum-Maximum)
Cash out	Tk 10.86+VAT	13.04+VAT	50-30,000 BDT
Transfer Money	1.5% (VAT	N/A	10-100,000 BDT

	included)		
Mobile Recharge	0	0	10-50,000 BDT
Send Money	0	0	10-100,000 BDT
Add Money	0	N/A	50-50,000 BDT
Cash in	0	0	50-100,000 BDT
Remittance	Tk 10.86+VAT	13.04+VAT	50-2,56,250 BDT
Merchant payment	0	0	
Government disbursements	0	0	
Utility bill payment (P2B)	0	0	

Table 1: Price list of Nagad's products.

Moreover, Nagad facilitates its services through the above-mentioned channels.

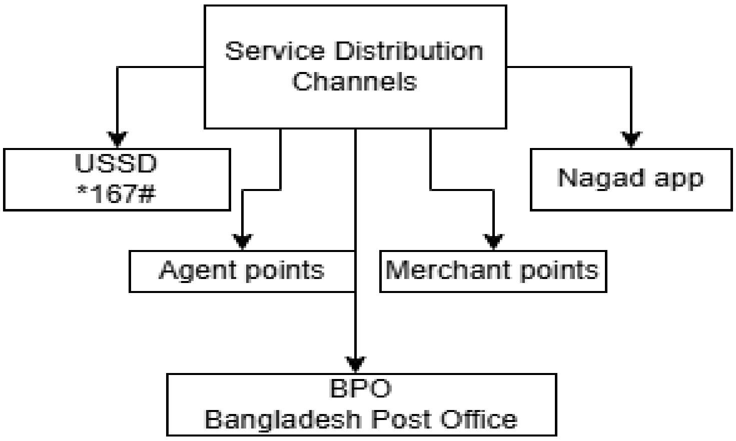

Figure 15: Nagad's distribution channels

Firstly, customers can use its services through USSD by just dialing *167#. Secondly, they can use the Nagad app, which has low charges compared to USSD. Thirdly, Nagad has a strong network of agents, and via those agents the customers get in-person services. Furthermore, customers can make merchant payments without any charge by simply scanning the QR code. Lastly, as stated above, Nagad works under the supervision of BPO, hence, it provides its services in rural areas through BPOs.

2.4.6 New product development and competitive practices:

Mostly, all the MFS providers provide similar services to customers, and these are P2P money transfer, P2B utility bill payment, government disbursement, inward remittance, cash-out, cash-in, merchants payments etc. But Nagad introduced some additional services, which made it unique from its competitors, and these are:

Nagad Islamic:

By targeting the religious people, it introduced Nagad Islamic. The Nagad Islamic and the mainstream app function separately to protect the interest of different customer segments. Nagad Islamic has its own website and app which are created for its dedicated customer segment. In Nagad Islamic the customers will not get any interest. Also, customers can pay for Hajj tours, Islamic insurance and so on. Additionally, users can read Islamic guidance and calculate their jakat through the Nagad Islamic app.

Figure 16: Nagad Islamic

Reliance on native language:

Generally, Nagad does all its marketing activities in Bangla because its target customers are rural people. This is one of the competitive practices of Nagad, which made it different from its customer. Its main slogan is “Use homegrown Nagad, get more benefits”, which gives a patriotic feel.

Low charges:

Currently, among the key market players, Nagad charges the lowest cash out charge of 12.50 BDT for 1000 tk, and 0 charge for P2P transactions, whereas its rivals companies charge money for P2P transactions. Therefore, low service charges are one of the competitive practices of Nagad.

Figure 17: Low charges

2.4.7 Branding activities

Nagad has implemented several innovative branding activities which positioned it as a low cost, reliable and native MFS provider in the mind of the customers. Some of its innovative branding initiatives are mentioned below:

- **Name:** In the beginning, the company's name was "Third Wave Technology Ltd" but the name did not provide an impactful outcome. Hence, the name has been changed to Nagad Ltd, which gives the impression of native brand. Moreover, the name is easy to remember and pronounce, which helped it to grasp the attention of their target audience (e.g., rural citizens).
- **Logo:** As stated above, Nagad is a subsidiary of BPO, therefore, its logo symbolizes a postal worker to represent the BPO. Besides, the colour and design of its logo is very vibrant and eye-catching.

Figure 18: Logo

- **Website & App Design:** Nagad's website and app is very colourful and user friendly. After opening the website, customers can get an overall view about the on-going offers, services, and other things. It tried to incorporate every important aspect (e.g., security alerts, steps to open an account, offers) on the front page of its website. However, the Nagad app needs to get updated with better features, and they are working on it. Moreover, most of its advertisements are in Bangla, which gives the impression of native company.

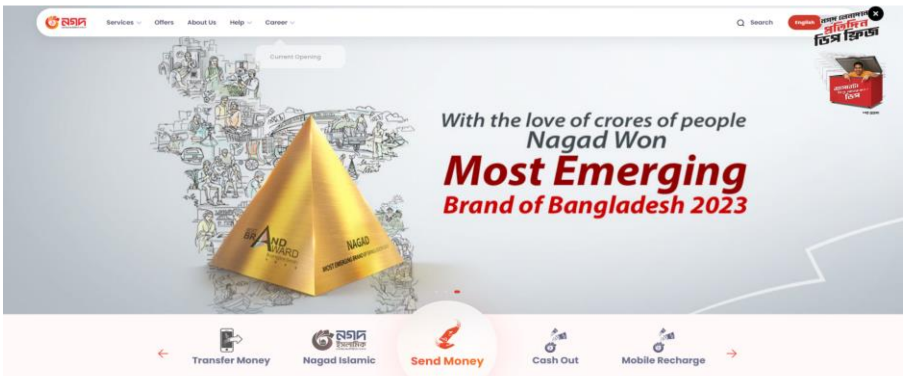

Figure 19: Visual of Nagad's website

- **Tagline:** "Deshi Nagad e Beshi Labh" or "Use homegrown Nagad, get more benefits" is the tagline of Nagad, which conveys its low-cost marketing strategy, and positions it as a native company among the customers.

Figure 20: Nagad's tagline

Therefore, Naagd's branding and marketing activities established it as a low-cost native MFS provider in Bangladesh, which fulfilled its target.

2.4.8 Critical Marketing issues and gaps:

The first critical marketing issue I have observed is the less presence in social media marketing. In this modern era, social media has become a habitual thing in everyone's life, thus, a strong existence in social media is mandatory. Nagad's targeted customers are the rural citizens, and the usage of social media is increasing among the rural people. Hence, Nagad can ensure a strong and innovative presence in social media. Secondly, Nagad does not arrange case competitions or career sessions for university and college going students. On the other hand, their competitors regularly organize career sessions and case competitions for different universities, which help them to get new ideas from fresh minds and enhance their reputation and presence among the students' minds. Thus, Nagad can host career sessions and case competitions by targeting the youth college and university going students.

2.5 Financial Performance and Accounting Practices:

2.5.1 Financial Performance and Accounting Practices of Nagad

The financial and accounting information (e.g., numerical values and methods) are highly confidential because Nagad is not a listed company. Thus, it is not possible to conduct an analysis based on the financial and accounting data. However, non-confidential data will be used for this report, which is available in publicly available secondary sources (e.g., news articles).

Nagad Ltd is a startup company with a subsidiary of Bangladesh Post Office, which started from March 2019. Even in the fiscal year of 2022, it did not reach its break-even point, and the financial report shows that the company has accumulated a loss of 625 crore BDT. Nagad is a startup company in its growth stage, and it is very common for startups to incur loss during its growth stage. To overcome this loss, the company issued zero coupon bonds which are unsecured, non-convertible and with a tenure of 5 years. Nonetheless, the company has forecasted that it will make profit in the upcoming years because within a short period it became the second largest MFS provider in Bangladesh. Consequently, in March 2025, it achieved its record-breaking monthly transaction amount of 34,000 crore BDT and attained the highest single-day transaction on March 20, 2025, the amount was more than 1500 crore BDT (The Daily Star, 2025). Despite incurring loss, the company became highest VAT-payer company in Bangladesh in the fiscal year of 2021-2022 and received the “Highest Vat Payers Award”.

Bangladesh Post Office owns 51% share of Nagad Ltd, and the partnership is based on revenue sharing. According to the revenue sharing agreement, Nagad shares 51% revenue with BPO on the amount that it receives after deducting all kinds of commissions (e.g., fees of agent, merchant, DSO, distributors).

The amounts are given below that are received by Bangladesh Post Office from Nagad:

Year	Amount (in crore)
2020	1.12
2021	3.32
2022	4.45
2023	5.5
Total:	14.39 BDT
Source: The Daily Star, 2024	
Table 2: The revenue amounts that BPO received from Nagad.	

In conclusion, Nagad is currently in its growth stage but effectively running its business. Its strategic planning helped it to become a Unicorn company within a very short time and contribute to the nation by paying highest vat and making the financial services more feasible.

However, I have tried to analyze the financial performance of Bkash Ltd. to get an overview of the financial performance of the MFS companies. Bkash is not a listed company, hence its financial statements are unaudited. The financial statements of the last 3 years are available on

Brac Bank's website, and those data have been used to do this ratio analysis. Therefore, based on the limited secondary data, I have analyzed the financial performance of 2022, 2023, and 2024 by calculating the suitable financial ratios.

Current ratio:

The current ratio describes the company's ability to pay short-term liabilities (e.g., accrued expenses, accounts payables) by utilizing its short-term assets (e.g., cash, marketable securities). We get the current ratio by dividing current assets by current liabilities. The below mentioned bar-chart shows the current ratios of Bkash Ltd. According to the chart, over the last 3 years the company had current ratios above 1, which indicates that Bkash has more current assets than current liabilities. Therefore, the current ratios above 1 is a good sign, which portrays that the company is running efficiently.

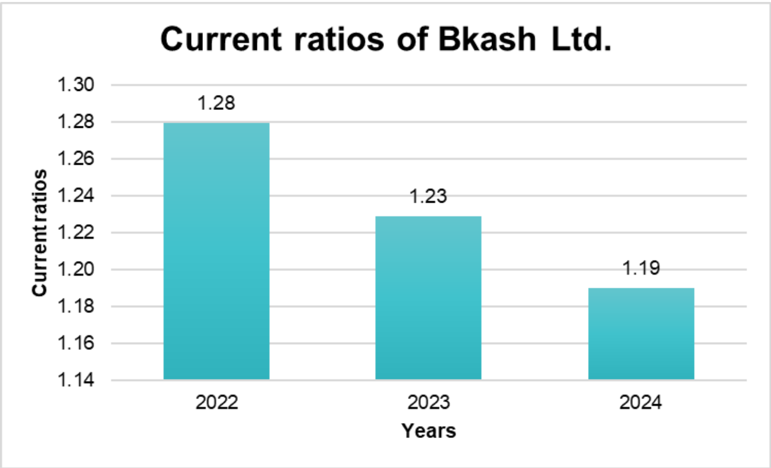

Figure 21: Current ratios of Bkash Ltd.

Debt-to-Equity Ratio:

The debt-to-equity ratio represents how much money Bkash owes compared to how much money it owns. We get the debt-to-equity ratio by dividing the total debt by total equity. The below mentioned bar-chart shows that over the last 3 years Bkash Ltd. has had debt-to-equity ratios which were more than 1. For instance, in 2023 the company's debt-to-equity ratio was 2.77, which indicates that Bkash is using 2.77 BDT of debt for every 1 BDT of equity. Hence, Bkash relies strongly on debt funds. Thus, it has high risks but if Bkash manages its risk efficiently, then it can earn more profit as a reward for its risk.

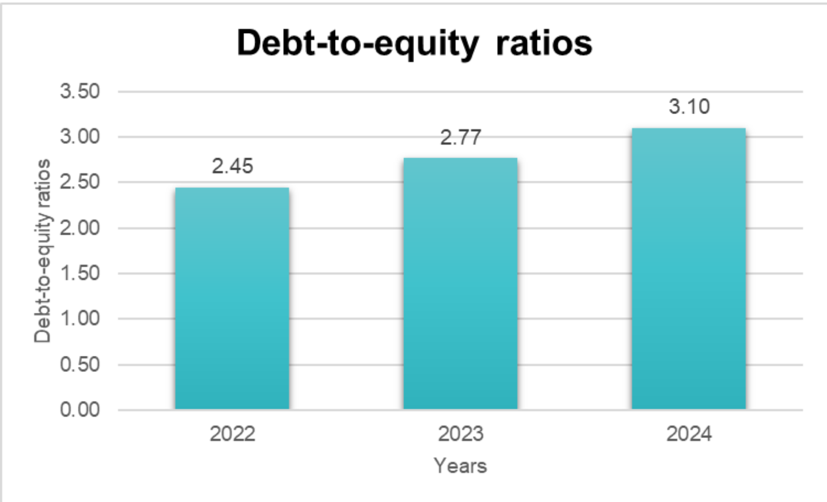

Figure 22: Debt to equity ratios of Bkash Ltd.

Equity Ratio:

The equity ratios explain how much money Bkash owns from its stakeholders rather than borrowing. We get the ratio by total equity by total assets. For example, in 2024, the company's equity ratio was 24%, which indicates that 24% or Bkash's assets came from stakeholder's equity, and the rest 76% came from debt. Therefore, the company is highly leveraged.

However, it may reward higher returns for taking greater financial risk. However, in 2024 Bkash slightly increased its equity financing compared to 2023 and 2022.

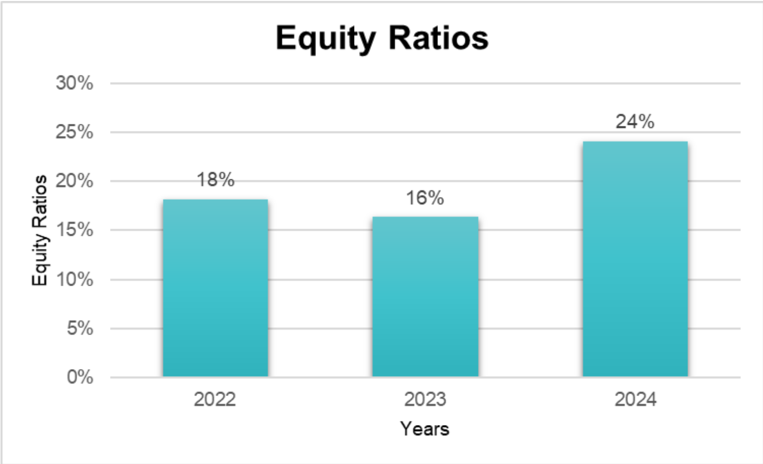

Figure 23: Equity ratios

Debt-to-Asset ratio:

This ratio tells us how much of assets are financed by debt. Hence, if the equity ratio is 18%, the debt ratio will be 81%. The below mentioned chart shows the equity ratios of Bkash Ltd, which illustrates that Bkash Ltd. has increased debt-to-asset ratio during the year 2022 and 2023. In 2024, it decreased its debt financing by around 6% but still 75.97% of debt-asset ratio is high enough. Hence, Bkash has greater risk for financing the largest amount of its assets through debt. Thus, investing in the company might be risky, but high risk comes with higher returns.

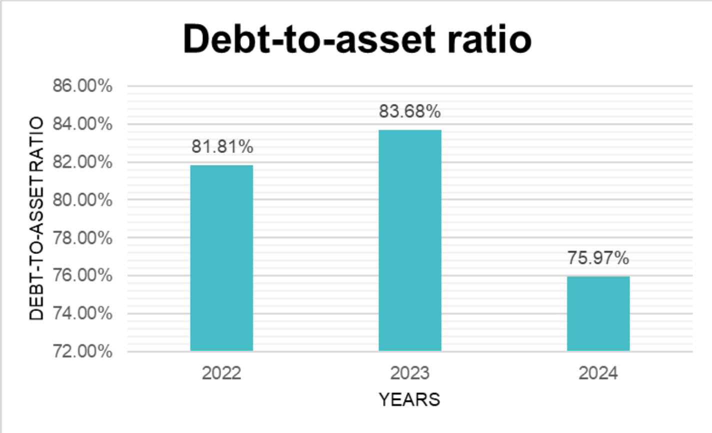

Figure 24: Debt-to-asset ratio

Gross Profit Margin, Operating Profit Margin, and Net Profit Margin:

The gross profit margin portrays the percentage of money the company earned after deducting its costs that were made while producing the product. Hence, it gives the percentage of profitability that the company earned before deducting the taxes, operating expenses and interest. We get the gross profit margin by dividing gross profit by revenue. The following chart shows a comparison among gross profit margins, operating profit margin, and net profit margin that Bkash had over the last 3 years. In 2022, the profitability ratio was 27.33%, and during 2023 it became 30.03%. Lastly, in 2024 the growth reached 35.36%, which means that Bkash earned 35.36 cents of gross profit for every 1 TK revenue. Secondly, the operating profit margin shows the profit percentage that the company made after deducting its operational costs (e.g. rent, salaries). We get this ratio by dividing operating profit by revenue. In the graph, we can notice an upward trend in operating profit margin. In 2022, it was 1.24%, and in 2024 it became 9.98%, which indicates that Bkash managed its operating expenses efficiently over the last 3 years. Thirdly, the net profit margin illustrates that final percentage of profit that Bkash Ltd. had after deducting all its costs including tax and interest. To get this ratio we divide net profit by revenue. In 2022, Bkash's net profit ratio was 0.51%, in 2023 it became 2.35%, and in 2024 it became 6.24%, which means, in 2024, for 1 BDT revenue Bkash earned 6.24 cents of profit. Thus, Bkash has a steadily increasing net profit margin.

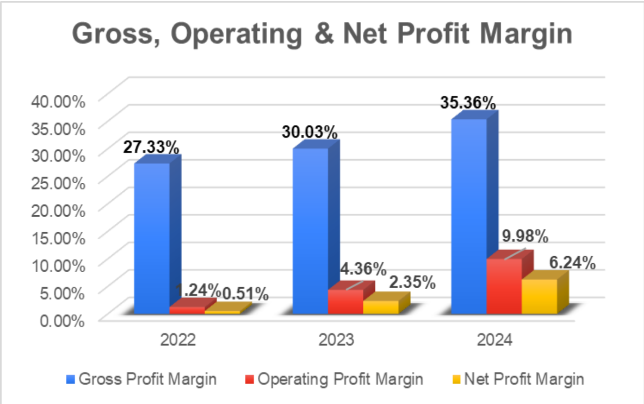

Figure 25: Gross, Operating & Net Profit Margin

Return on Assets (ROA):

ROA explains how efficiently a company is utilizing its assets to earn its net profit. We can get the ratio by dividing net profit by total assets. A higher ROA indicates that the company is managing its assets efficiently. The following bar-chart shows the ROA of Bkash Ltd over the last 3 years. According to the chart, in 2022 the ROA was .10%, and in 2023 it has a drastic growth of .51%. Lastly, in 2024, it reached 2.32%, which indicates that for every 1 TK of assets Bkash earned 2.32 TK of net profit. Therefore, if we compare between 2022 and 2024, we can say that Bkash Ltd. has improved its asset management techniques.

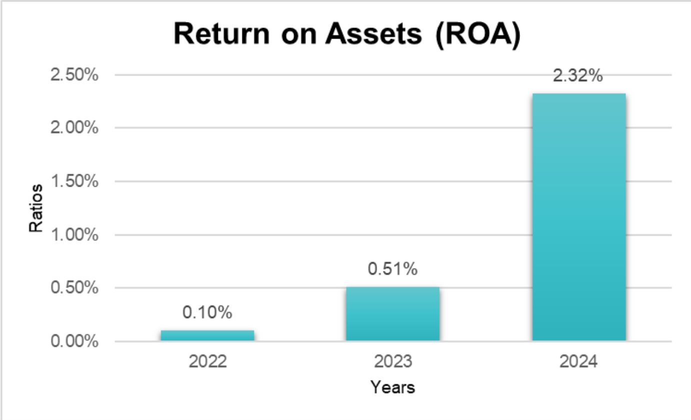

Figure 26: ROA of Bkash Ltd

Return on Equity (ROE):

Same as the ROA the ROE measures how efficiently a company is utilizing its shareholder's equity to generate net profit. We can get the ROE by dividing net profit with shareholders equity. The chart depicted below shows the ROE of Bkash Ltd. over the last 3 years. In 2022, the ROE was .57%, which was quite low compared to the years of 2023 (3.12%) and 2024 (9.68%). 9.68% of ROE indicates that for 100 TK of shareholder's equity Bkash Ltd. generated 9.68 BDT of net profit. Hence, we can see that Bkash Ltd. is managing stakeholder's equity more efficiently compared to 2022.

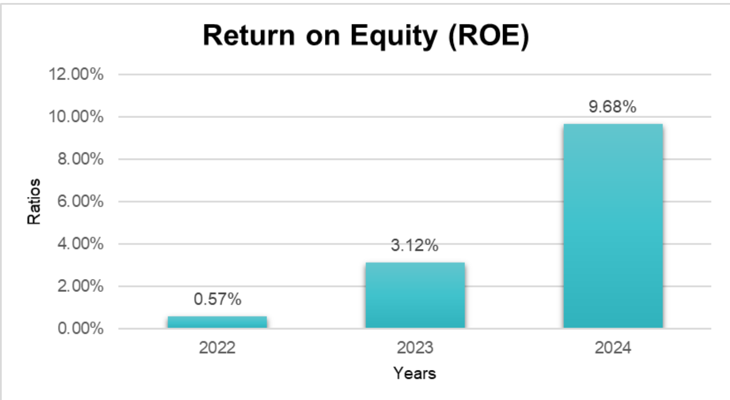

Figure 27: ROE of Bkash Ltd

Asset Turnover:

This ratio measures how efficiently a company is utilizing its assets to increase its revenue. We can get this by dividing net sales by the average total assets of the company. The following chart shows the asset turnover ratios of Bkash LTd. In 2022 the asset turnover ratio was 18.98%, and in 2023 it became 25.47%. Lastly, in 2024, it reached 37.24%.

Figure 28: Asset Turnover

Equity Multiplier:

This ratio describes how much a company's assets are funded by shareholders' equity rather than debt funding. We can get this by dividing the total assets by the total shareholder's equity. If the equity multiplier is high, it indicates that the company heavily relies on debt while funding its assets, and vice versa. The following chart shows the equity multiplier of Bkash Ltd. over the last 3 years. In 2022 the equity multiplier was 5.91, and in 2024, it dropped to 4.16. Hence, the decreasing equity multiplier indicates that Bkash Ltd. is slowly reducing the amount of debt financing.

Figure 29: Equity Multiplier

Du Pont:

I did the DuPont analysis to get a more comprehensive knowledge about the return of equity of Bkash Ltd. It is the method that divides ROE into three components, and these are: equity multiplier, asset turnover, net profit margin. Hence, it includes companies' ability in making profit, utilizing the assets efficiently, along with financial leverage. In the above discussion, I did a detailed discussion of these 3 components. The following table shows the ROE that I got through DuPont analysis. In 2022, the ROE of Bkash Ltd. was .57%, which was caused by the low profit margin of .51%, and low asset turnover of .19. Secondly, the equity multiplier was 5.91, which indicates that Bkash used a significant amount of debt. Secondly, in 2023 the ROE had significant growth, and it reached 3.12% because all the three components rose. Lastly, in 2024 the ROE slightly increased to 9.68%. Furthermore, during 2024, the net profit margin increased by 6.24%, which is a good indicator, but the asset turnover increased to .37 which emphasizes more efficiency in asset management. However, the equity multiplier became 4.16. Therefore, in 2024 Bkash had a higher profit margin with efficiency in asset management but high dependency in debt financing, which indicates that Bkash is profitable but risky at the same time.

DuPont Analysis			
	2022	2023	2024
Asset Turnover	0.19	0.25	0.37
Net Profit Margin	0.51%	2.35%	6.24%
Equity Multiplier	5.91	5.22	4.16
ROE	0.57%	3.12%	9.68%

Table 3: DuPont Analysis

2.6 Operations Management and Information System Practices

2.6.1 Data collection, store, and sharing

- **Data collection:** Nagad prefers primary data collection to ensure the accuracy of its collected data. For instance, while recruiting an employee the HRBP team tries to communicate with the previous company where that employee worked. They prefer to collect first-hand information rather than depending on secondary data or third parties.
- **Data store:** Secondly, Nagad is very cautious about storing its data safely. Thus, for all documents they keep multiple soft copies along with hard copies. It has its own software called "Nagad ERP", where all data (e.g., employee attendance, all documents of major or minor purchases) is stored. Moreover, there is individual software to track the activities of Uddokta (agents), and DSO. Apart from that, through Microsoft Outlook and Teams the employees communicate with each other. Employees do not conduct verbal communication, rather they communicate through emails to keep records of their conversations.
- **Data sharing:** Thirdly, Nagad is a private company, thus, it does not publicly share its inside information. Companies' financial statements (e.g., income statement, balance sheet) are only shared with the top-management because being a private company its

information is highly confidential for Nagad Ltd. Besides, it communicates its achievements and major news to its stakeholders through media, its personal website and social media accounts.

2.6.2 Overview of the Supply Chain Process

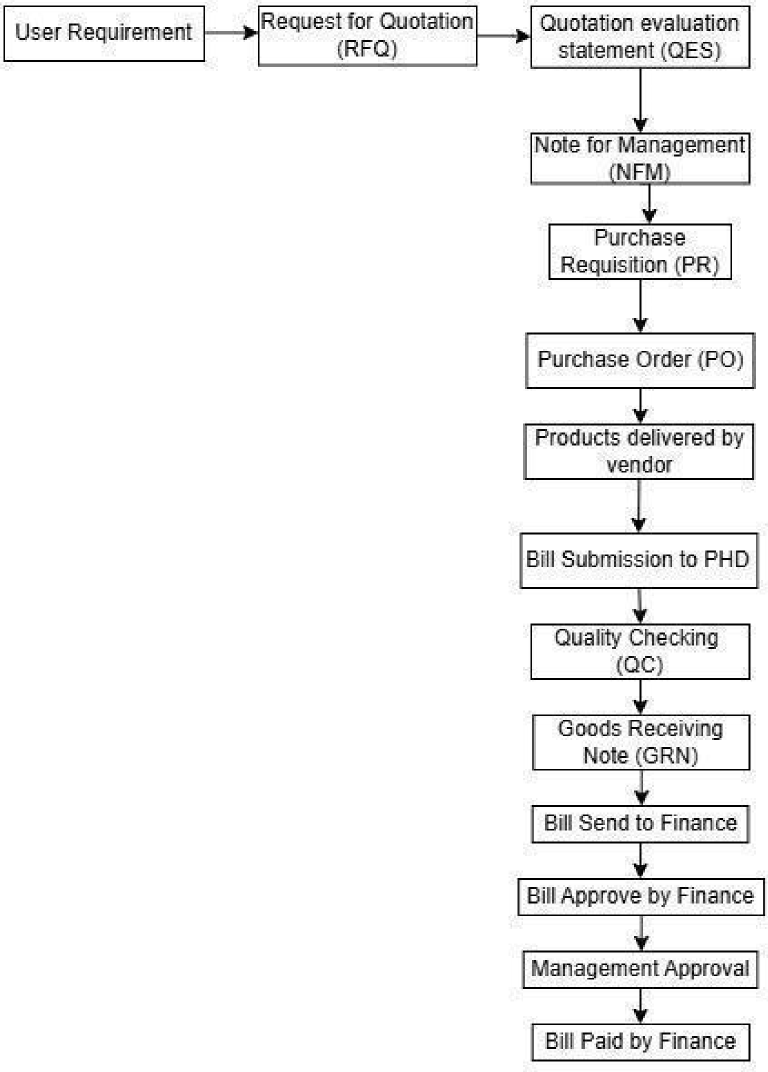

Figure 30: Supply chain process of Nagad Ltd.

Firstly, the user will send the product requirement to the Supply Chain Management (SCM) department. Secondly, the SCM will find vendors and send quotation requests (RFQ) to those selected vendors. Thirdly, SCM will evaluate the submitted quotations. Also, SCM will negotiate with the vendors, if required. Next, the SCM will select the vendors based on price, quality, reputation, and lead time. Then, the selected quotations will be forwarded to the management, and the management will review the quotation, and will give approval. After the management's approval, the users will evaluate the quotation, then users will issue purchase requisition (PR). Afterwards, SCM will issue a purchase order to the final vendor. Following that, the vendor delivers the products and submits the bill to the Partner Help Desk (PHD) department. Next, the quality check and assurance team checks the product, and sends the products to the users. Users get the products from the quality check and assurance department, and bill from the PHD department. The authorized personnel from the warehouse will check the products and will issue a Good Received Note (GRN) for the goods received and Service Completion Certificate (SCC) for service received. After receiving the GRN or SCC, again the PHD department will forward the bill to the finance team. The finance department will probe the previous documents, and approve the bill, if there is no discrepancy found. Lastly, before paying to the vendor, the finance will send the bill for management's approval. After getting management's approval, the finance department will pay the vendor.

2.7 Industry and Competitive Analysis

2.7.1 Porter's 5 Forces Analysis:

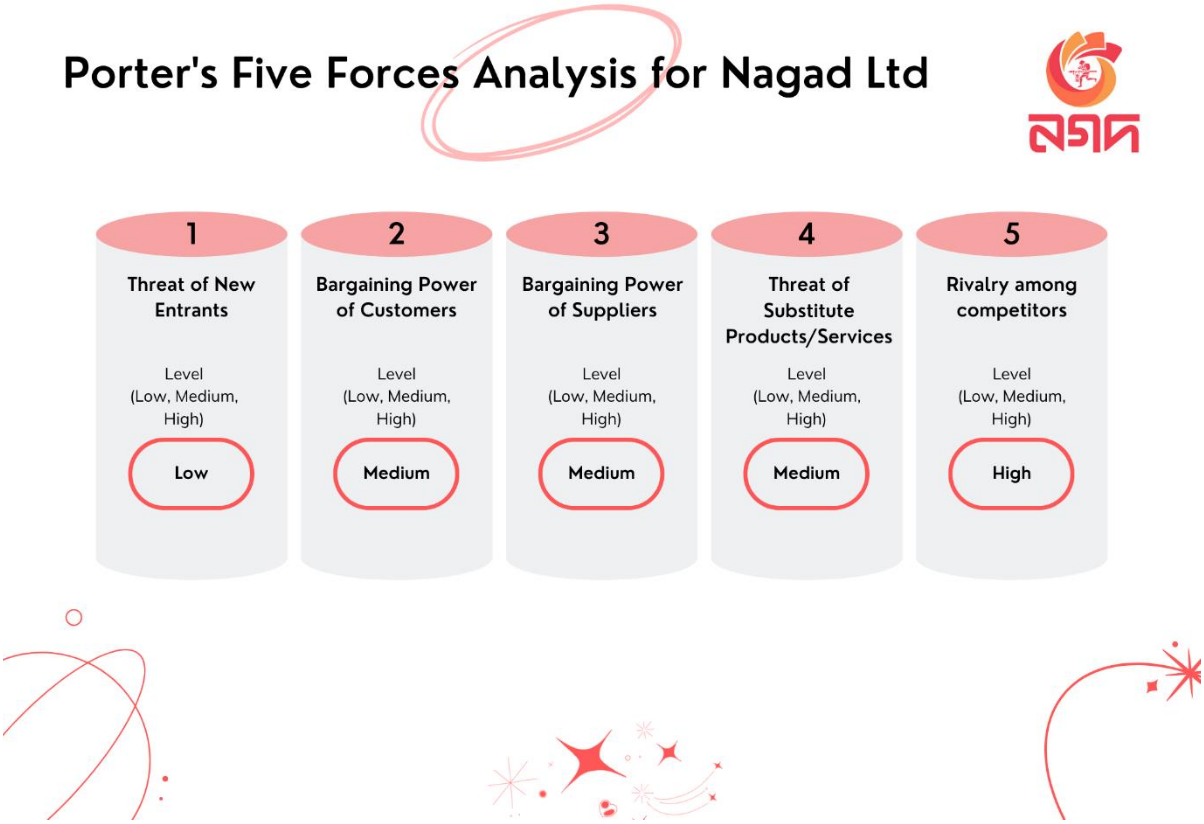

Figure 31: Porter's 5 Forces

Threat of new entrants: In Bangladesh, an MFS provider needs to maintain a minimum paid up capital of 45 crore BDT, and at least 51% shares need to be held by a commercial bank, government, or financial institution which is licensed by Bangladesh Bank (central bank of Bangladesh). If the MFS providers fail to maintain the minimum amount of paid-up capital, then Bangladesh Bank will give a penalty or might cancel the license. Because of this complexity, the threat of entering new interns is low. Furthermore, there is an oligopoly market, among 13 MFS providers, Bkash and Nagad dominate the market by covering 75% of market share (Hasan & Hasan, 2023). Therefore, it is difficult for new entrants to come into an oligopoly market and acquire customers.

Bargaining power of buyer: There is a moderate bargaining power from the customers side because there is an oligopoly market with 13 MFS providers. However, mostly 3 MFS providers (e.g., Bkash, Nagad, Rocket) dominate the maximum market shares. Nagad holds the second position in the market. Besides, there are many merchants and agent points for Nagad and Bkash, which is convenient for the customers. Furthermore, some banks have their own E-wallet services, but customers cannot withdraw money from agent points, rather they need to visit an ATM booth or can transfer money. For some Bangladeshi citizens it is still difficult to use ATM booths. Therefore, considering the above-mentioned points we can say that in the MFS industry the bargaining power of buyers is moderate.

Bargaining power of suppliers: Nagad's suppliers are the 4 MNOs (e.g., Banglalink, Robi, GP, Teletalk), commercial banks, and companies from distinct industries (e.g., FMCG, textile, media). It needs suppliers from distinct industries to run the administrative and supportive work. In the case of MNOs, the bargaining power of suppliers is high because there is an oligopoly market with 4 MNOs only. Whereas, in the case of other industries (e.g., textile, FMCG, media), the bargaining power is high because of the availability of the suppliers. All together, we can say that there is a moderate bargaining power of suppliers.

Threat of Substitute Products:

The substitute products for the MFS are credit and debit cards, ATM cards, conventional banking services, cash, and internet banking services. A large portion of elderly citizens do not use MFS because of safety concerns, lack of technical knowledge and unavailability of smart phones. Moreover, Nagad wanted to start digital banking services, but the launching of this product is pending because of the changing governmental regulation. Also, Nagad does not provide cash withdrawal service through ATM booths. However, it grasped maximum shares from the rural areas through creative marketing, charging low, and being a subsidiary of BPO. It is difficult to do all the banking formalities for the rural people. Hence, the rural people prefer MFS over conventional banking services. Therefore, the threat of substitute products is medium for the whole MFS industry along with Nagad.

Rivalry among competitors:

The competition among the MFS service providers is significantly high.

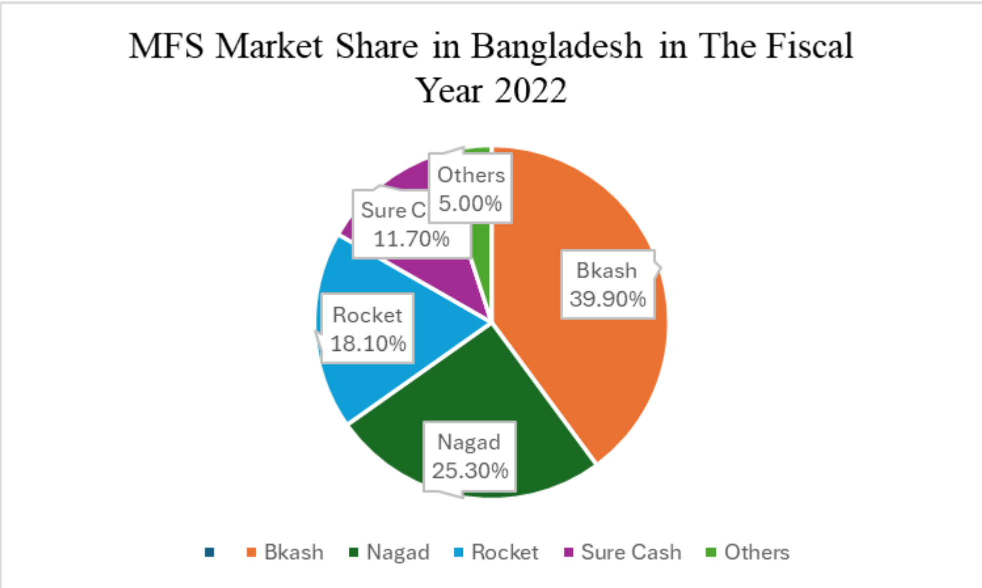

Figure 32: MFS Market share in Bangladesh during the fiscal year of 2022.

Source: The Financial Express, n.d.

The pie chart in the figure 2 illustrates that Nagad is the second market player among the 13 MFS companies in Bangladesh. Moreover, the difference between the market share of Nagad and Bkash is not that much. Rocket is the 3rd market player, and it has the first-mover advantage. Both Nagad and Bkash do aggressive marketing to promote their products and try to acquire the maximum market share. Therefore, the competition among the Bangladeshi MFS providers is very high because of the existing oligopoly market.

2.7.2 SWOT Analysis:

The SWOT analysis will analyze the internal condition of Nagad through identifying its strengths and weaknesses, and the external condition through evaluating its opportunity and threat.

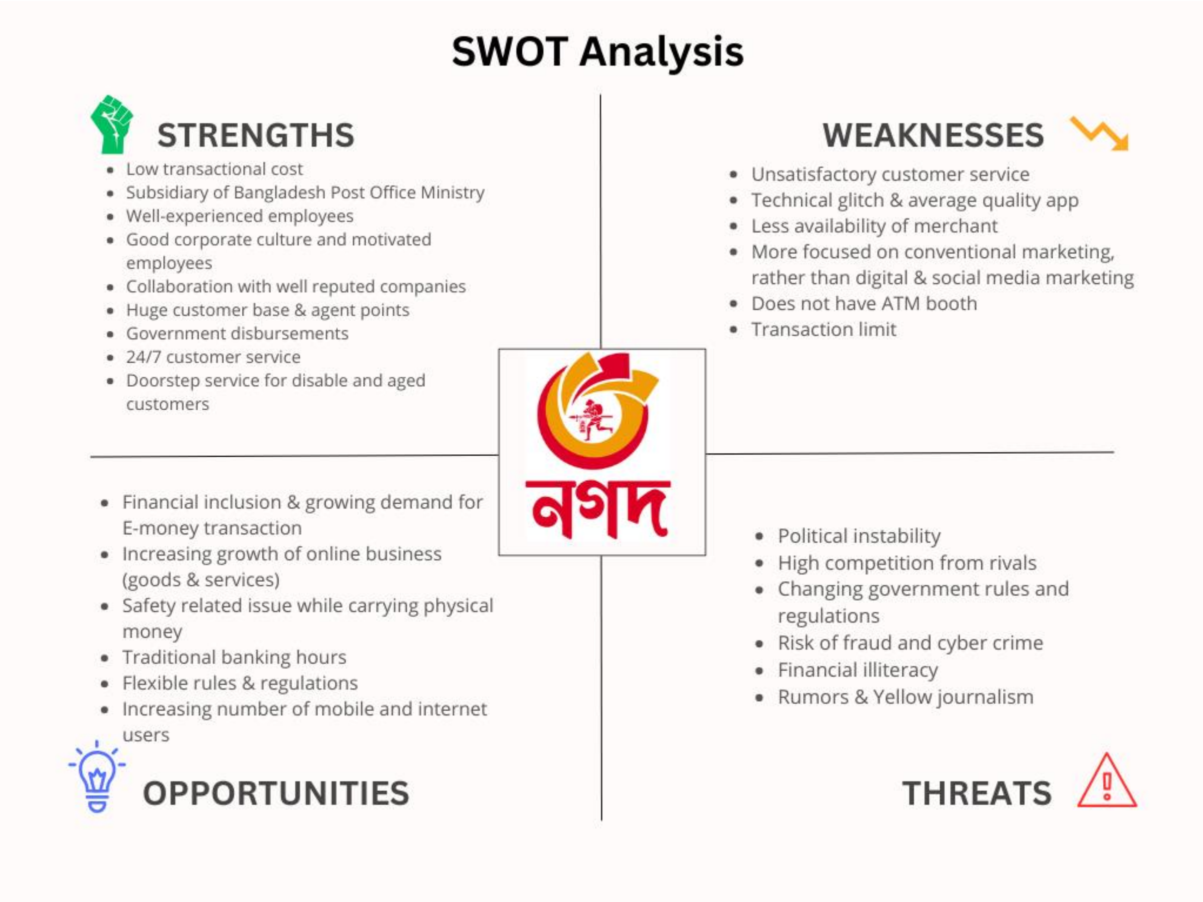

Figure 33: SWOT analysis

Strengths: First and foremost, it has a low transactional charge compared to its competitors, and this low-cost strategy helps Nagad to acquire more customers. Secondly, it is a subsidiary of Bangladesh Post Office (BPO), which helps to get customer faith because a private company which has government partnership is less likely to default. In addition, there are 97 BPO based customer service points to provide all types of direct customer service through Nagad's own employees. Furthermore, it has experienced employees who worked in reputed companies and different industries (e.g., FMCG, TELCOM, Banking). Those employees unitedly utilize their prior knowledge for the betterment of Nagad, and the skilled human resource is the prominent strength of Nagad. Moreover, the corporate culture inside Nagad is very satisfactory. For instance, employees get their salaries on the 26th of every month, and get gifts, appraisals, and appreciation for their contribution. This good corporate culture makes employees motivated, and they can work more efficiently, which works as a strength of Nagad. Besides, it has collaboration with some giant Bangladeshi companies (e.g., GrameenPhone, Banglalink), and it enables Nagad to grasp more market share. Therefore, it has more than 9 crore active customers, 45 thousand agents. Moreover, Nagad disburses most of the government social safety allowances, and in the fiscal year of 2021-2022, Nagad disbursed 75% of government allowance (Dhaka Tribune, 2023). Last but not the least, it provides doorstep services for its disabled and aged customers, which serves the purpose of social service along with satisfactory customer service. Besides, Nagad is more active in conventional marketing (e.g., event sponsorship, banners & festoon, newspaper advertisement) compared to social media and digital marketing, which is a weakness because in this modern era, digital marketing is very crucial.

Weaknesses: Firstly, it has a large customer base but inadequate resources to ensure smooth customer service, which sometimes leads to dissatisfaction among the customers. Additionally, some of its customers face technical glitches (e.g., problems in receiving OTP or while opening an account), and its app is average in quality. Besides, Nagad's app shows the customer's transaction history for only 1 month. On the other hand, other MFS companies provide the transaction history for at least 3 months. Moreover, compared to its competitor it has less merchant and agent points, which creates problems for its customers. Moreover, it has a transactional limit (e.g, in one day each customer can cash out a maximum amount of 30,000 BDT), though its competitors have a similar cashout limit. However, if we compare Nagad with conventional banking services, the cash-out limit can be considered as its weakness. Lastly, its competitors provide their services through ATM booths (e.g., customers can avail services of Rocket via the ATM booths of Dutch Bangla), but Nagad does not provide services through ATM booths yet.

Opportunities: Because of financial inclusion the demand for E-money has increased a lot, which is an opportunity for Nagad. According to Bangladesh Bank, in January 2020, the average daily transaction was 1824.42 crore BDT with the active customers of 323.27 lacs, whereas, in January 2025, the daily average transaction reached to 5537.55 crore BDT with the active customers of 893.84 lacs. Hence, over the last 5 years, the MFS companies secured a prominent amount of market share, which indicates the growing demand of this industry. Moreover, there is an increasing growth of online business, which has a substantial impact on the MFS industry because most customers pay bills through e-money because there is a safety related issue while carrying physical money. Theft and robbery increased a lot, and E-money works as an alternative of physical money with no risk of robbery or theft. Though it has the risk of cyber scams, it can be mitigated through maintaining proper safety protocol. On the other hand, the conventional banks maintain working hours, but through MFS customers can get financial services 24/7. Besides, the paper requirements to open an account is easy in MFS compared to banks. For example, a customer can open a Nagad account with a National ID card (NID) or birth certificate but to open a bank account that customer will require some additional documents. The formalities for opening a bank account might create hassle for rural citizens or people will have less banking knowledge, whereas, opening a MFS account will be easier for them. Lastly, the growing number of mobile and internet users is an opportunity for MFS because customers do E-money transactions with their mobile phone, and they need to have a network or internet to use the app or USSD.

Threats: Political instability is a problem for all the industries in a country. Currently, Bangladesh is going through a political instability which impacted the operational activities of Nagad as well. During the political reform in 2024, other companies along with Nagad faced problems in doing their regular activities. Also, changing government regulations might have a negative impact on a company. For instance, Nagad was fully prepared to launch its digital banking service, but currently it is in a pending situation because of the changing rule of the current government. Besides, there is an oligopoly market with few market players, which created high competition from the rivals. Though Nagad has a competent cyber security team, the risk of fraud and cyber-crime increases a lot. For example, 1 out of 10 MFS users were the victim of fraud (The Daily Star, 2022). Furthermore, there are many rumors and yellow journalism about Nagad, which might manipulate the perception of the existing and potential customers. Lastly, though financial inclusion increases a lot, financial illiteracy still exists. Financial illiteracy can be a barrier for Nagad because it is challenging to serve current and potential customers with financial illiteracy.

2.8 Summary and Conclusions

To wrap it up, being a newcomer in the MFS industry, Nagad did great compared to its key rivals. Within 5 years it served 9 crore customers and became a Unicorn. It provided smooth services to its customers during the COVID-19 pandemic. Even during the current political instability, the negative market news and yellow journalism could not harm Nagad that much, as in March 2025 it achieved its record-breaking monthly transaction of 34,000 crore BDT. The participative leadership style is one of the core factors of Nagad's success because all the employees and employers work unitedly. Besides, its innovative marketing practices made it capable of protecting itself from yellow journalism and negative market news. However, Nagad can do more marketing activities (e.g., case competitions for university students, social media marketing) by targeting the youths because they frequently use MFS services.

Undoubtedly, Nagad is doing very well but it has some weaknesses (e.g., unsatisfactory customer service, less presence in social media marketing) as well. Apart from its weakness it has many strengths and opportunities. Hopefully, Nagad will successfully overcome its weaknesses and will have a sustainable growth in the market.

2.9 Recommendations:

- First and foremost, Nagad can increase its presence in social media marketing.
- Secondly, they can host case competitions and career sessions for university and college going students to acquire new ideas and enhance the brand reputation among the young minds. Also, it will help them to attract more talented people.
- Thirdly, they can introduce the ATM service for cash-out and cash-in.
- Additionally, Nagad can increase the availability of merchant points.
- Moreover, it can improve its customer service through improving its app and website.

Chapter 3: Project Part

"Analysis of the Growth in E-wallet Adoption and Assessment of Risk Management Strategies to Ensure Sustainable Growth of MFS Industry: Insights from Nagad Ltd."

3.1 Introduction:

3.1.1 Background and Problem Statement:

Day by day E-wallet is becoming a significant part for both the rural and urban citizens because the cost is low compared to traditional banking, and the availability of agent and merchant point more. Moreover, a lot of paperwork needs to be done before opening a bank account, but a person can open an MFS account with their NID and without visiting the office. Dutch Bangla bank launched its MFS service in 2012, and within a short period it became very popular. For instance, in December 2020, the number of registered customers was 993.36 lacs, and in January 2025, it became 2377.63 lacs (Bangladesh Bank, n.d.). However, a lot of people still fear using MFS services because of fraud and scam, along with lack of technical knowledge. One out of 10 MFS users are the victim of fraud, and 42.35% of fraud cases are done through social media platforms (Afrin, 2024). Hence, fraudulent activities are the biggest challenge for MFS providers, and they need to maintain strong protocols to protect their customers from fraud. Moreover, in this modern era AI has a great impact on almost every industry, hence I will briefly explain how AI can have an impact on this industry. Therefore, this paper will give an overview on the MFS industry in Bangladesh through analyzing the growth from the sales data of the last 5 years, and sales growth will be forecasted from this historical sales values. Secondly, it will explore how AI can impact the MFS industry. Thirdly, it will evaluate how

MFS providers manage their risks to secure sustainable growth because risk management is one of the primary challenges for MFS providers.

3.1.2 Objectives:

The overall objective of this research is to explore risk management strategies to ensure sustainable growth of the MFS industry.

The specific objectives are:

1. Forecast the growth of the MFS industry in Bangladesh.

2. Identify different types of risks that MFS companies need to tackle.

3. Analyze the relationship between sales growth and the potential risks that MFS providers face.

4. Explore the role and contribution of Bangladesh Bank and other regulatory bodies in ensuring proper risk management by MFS companies.

5. Provide recommendations for the future sales growth of the MFS industry and manage its risks more efficiently.

3.1.3 Significance:

This research provides crucial knowledge about the risks that MFS industry faces, and the techniques of efficient risk management to ensure the sustainability and growth of this new industry. Furthermore, it will give insights to the MFS users, investors and other stakeholders about the growth of this industry and the potential risks that this industry faces. Hence, customers can use the MFS services with precautions. Additionally, investors can decide whether to invest in this industry or not. Apart from that, this research provides some worthwhile recommendations, which will help Nagad and other MFS provider companies to manage their risks more efficiently.

Therefore, through this research the stakeholders can get detailed knowledge about the risks that the MFS industry needs to tackle, and investors will get an idea about the growth rate and risks of this industry, which will help them to make their decision wisely.

3.1.4 Scope of the Study:

This part of the study has been done by forecasting the growth in E-wallet adoption and how risk management techniques can contribute to ensure sustainable company growth. Historical sales data for the previous 5 years have been taken to forecast the future growth of the MFS industry. A sales prediction only based on historical data might not be absolutely accurate. Hence, future researchers can do further research by considering other factors (e.g., political, economic, technological). Besides, this research did not conduct any separate sales forecast for Nagad Ltd. because of the confidentiality issue. Hence, Nagad can do its own sales forecast and can take support from this research as this research has done sales forecasts on the overall MFS industry. Additionally, an overview of the risk management techniques has been given without any real-life examples of internal fraud because these are highly confidential information. In that manner, by comparing fraudulent activities the company can do its own research to analyze and evaluate risk management techniques that are useful.

3.2 Literature Review:

In Bangladesh the Mobile Finance Services (MFS) started in 2012 by Dutch Bangla Bank Limited (DBBL), and it increased the feasibility of the financial services. Most of the Bangladeshi rural and urban citizens are doing their everyday financial activities through MFS. For instance, in December 2024, the total number of MFS users was 2386.76 lacs (Bangladesh Bank, n.d.). Hence, the MFS companies already had drastic growth and might face more growth because of the availability of agents/uddokta points, easy and fast service, low cost, and it promotes sustainability through generating digital money. However, E-wallet made financial transactions easier, but it has higher risk compared to other financial institutes (e.g., Banks) (Senarathna, 2020). Thus, this section of the report forecasts the growth of MFS industry, and particularly the revenue growth of Nagad Ltd; along with the risks that MFS companies need to tackle to have a sustainable growth.

There is plenty of research on the risks that MFS providers face in Bangladesh. For example, 1 out of 10 E-wallet users have been victimized through some sort of fraud (Afrin, 2024). However, there is not much research on the growth forecast of this MFS industry and how growth and risks are significantly connected. Hence, this research fulfilled the research gap by forecasting the growth of E-wallet adoption by collecting the sales data of the last 5 years from Bangladesh Bank’s website. Furthermore, it explored how growth and risks are connected. For instance, if growth increases, then risk will increase, and if risk decreases, then growth will increase as well.

Besides, other researchers have emphasized that limited technological knowledge of the customers and inefficient utilization of artificial intelligence are the reasons behind facing high risks. According to Kumar (2022), the MFS industry faces several challenges because of limited knowledge of some users, insufficient technological infrastructure, regulatory restrictions, cybersecurity threats and so on. Furthermore, machine learning, robot advice, Internet of things, etc. are crucial for FinTech. However, the customers do not have sufficient knowledge about these, and the MFS providers are not that efficient in utilizing these technologies. Hence, the MFS providers often face difficulties while fulfilling the customer's expectations (Kumar, 2022). Furthermore, many MFS users rely on others (e.g., family members, neighbors, agents) for doing MFS transactions, which hampers privacy and increases the chance of fraud. Moreover, there are numerous cases where the users shared their pin numbers to the scammers because they had limited knowledge of fraud prevention (Rahman & Ahsan, 2024).

Another severe risk has been explored by the researchers, which is third-party risk. According to Rahman (2021), female customers get harassed by male agents, and in some cases, after cash-out the agents did not pay the customers. Furthermore, during cash-out some customers faced problems related to the liquidity crisis. These inconvenient situations are created by third-parties (e.g., agents and distributors), which directly hamper the reputation of the MFS provider companies.

Therefore, the above-mentioned researches convey that MFS is a growing industry but its need to tackle several risks to get a sustainable growth. According to the record of Bangladesh Bank (n.d.), within a decade it acquired 2386.76 lacs of customers. However, the industry still has some inefficiencies in utilizing AI, along with the lack of technical and fraud prevention knowledge of the customers. Hence, more innovative approaches need to be taken by the MFSPs to provide smooth services and ensure sustainable growth.

3.3 Methodology

This research aims to explore the growth in E-wallet adoption, along with the risk management techniques which help the company to have sustainable growth. Both secondary and primary data have been utilized for this research. For secondary data, it explored previously published academic literature, studies, and news articles on MFS. Additionally, financial data of the last 5 years will be taken from Bangladesh bank's website to forecast the future growth of the MFS industry. The past product's sales trend is not linear, hence, "FORECAST.ETS" formula has been used to do the forecast with the past cyclical sales values. The FORECAST.ETS function uses an exponential triple smoothing algorithm to forecast the future sales or any data points. However, Nagad is not a publicly listed company, hence the inside information is highly confidential. Thus, no sensitive information will be disclosed, and all inside information will be utilized with the permission of the head of internal audit. Secondly, primary data collection has been conducted through interviewing the employees of the Internal Control and Compliance (ICC) department. Moreover, department heads took multiple training sessions for the interns, and these pieces of information are incorporated as primary data.

3.4 Findings and Analysis:

3.4.1 Overview of the growth trend of MFS industry in the last 5 years, along with forecast for the next 5 years

The following analysis has been done on the overall MFS industry in Bangladesh, and financial data obtained from Bangladesh Bank's website.

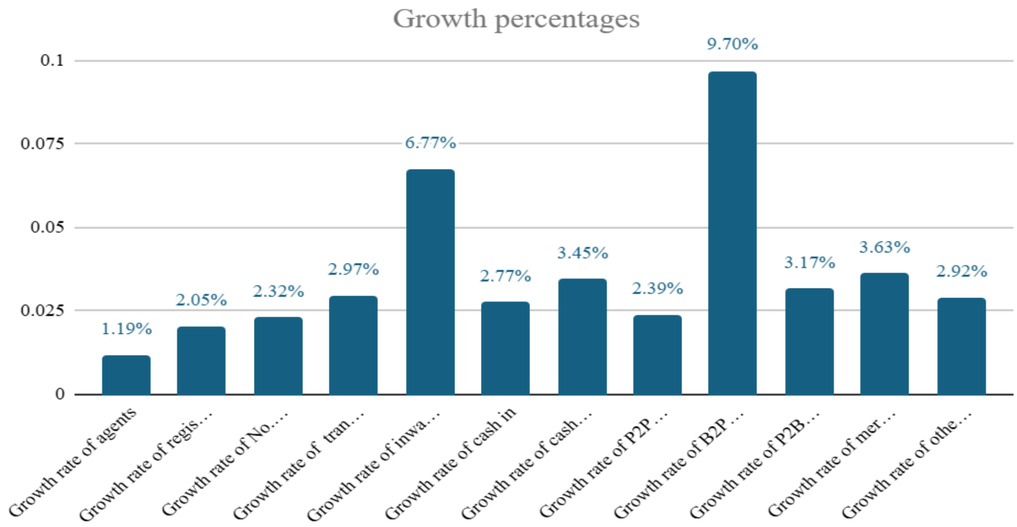

Figure 34: Growth percentages of individual services

The above-mentioned bar chart shows the average growth percentage of the services that MFS companies provide in Bangladesh. The percentage growth of the individual products has been calculated from the monthly financial data that are given in Bangladesh Bank's website. Next, the average growth rates are computed by taking the average of the monthly growth rates. The bar chart illustrates that salary disbursement (B2P) has the highest growth rate of 9.70%. Secondly, inward remittance has the second highest growth rate of 6.77%. Besides, cash-in, cash-out, merchant payments, and P2P transactions are the most common services of MFS companies, and all the services have similar growth of around 2.77% to 3.63%. However, the transaction amounts of these 3 services are less compared to salary disbursement (B2P) and inward remittance. Thus, the growth percentages of inward remittance and B2P transactions are higher compared to the 3 most used services. Based on this forecast, the MFS industry has potential growth, which will work as a vital player in improving the financial condition of Bangladesh.

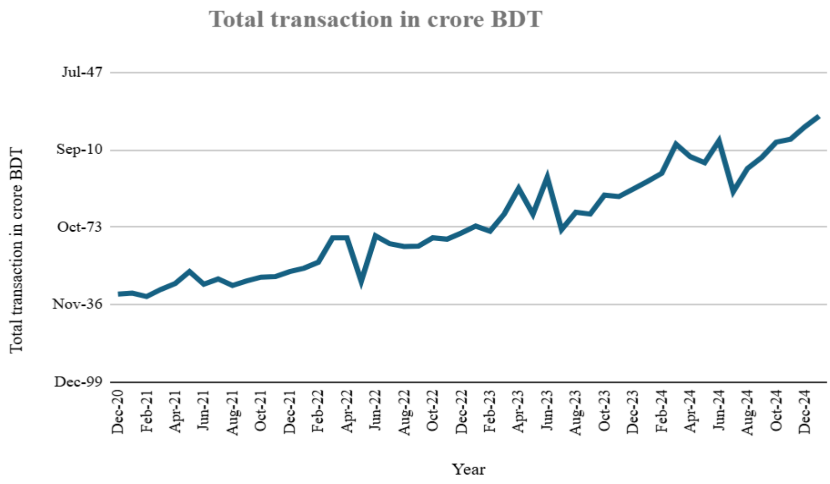

Figure 35: Total transactions in MFS industry

Secondly, the above-mentioned line chart shows an upward growth in the total transactions from December 2020 to January 2025. Hence, the MFS industry had stable growth over the last 5 years, which indicates that MFS will have stable and sustainable growth in the future.

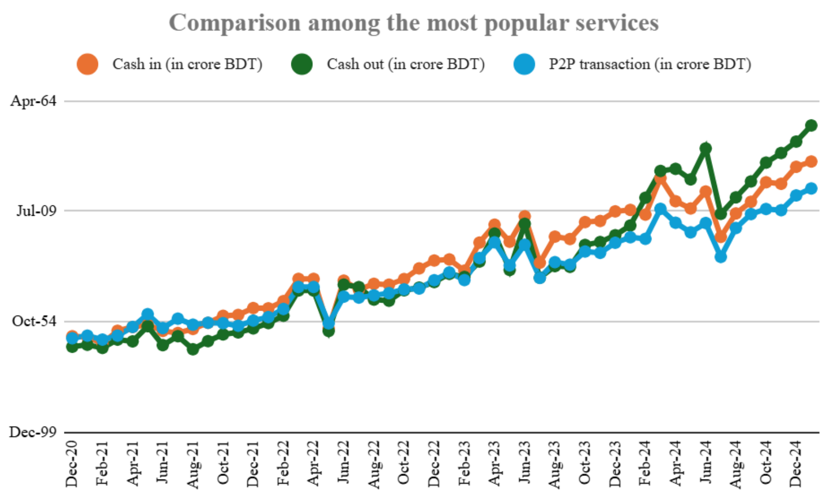

Figure 36: Comparison among the most popular services

Furthermore, the above-mentioned line chart illustrates the comparison between the most popular services which are provided by MFS companies in Bangladesh. Cash-in, cash-out, and

P2P transactions are the most popular services, and all these services have almost the same pattern in their movement. Moreover, the lines are upward sloping with less fluctuations, which again indicates that MFS will have stable growth.

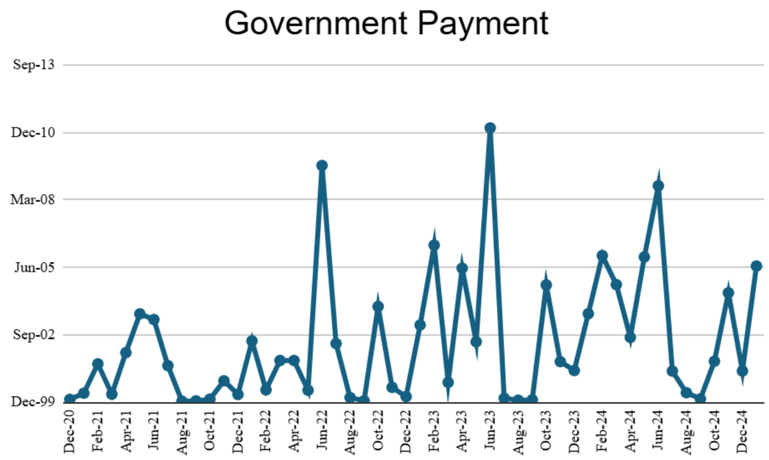

Figure 37: Government payment

The above-mentioned graph shows significant fluctuation in government payment, which indicates irregular government payments through MFS companies. In June 2023, it had the highest spike, and there is a noticeable decline in August 2023. In June 2022, Nagad disbursed 100% of primary education allowance, 75% of the social SafetyNet program, and both are government allowance (The Business Standard, 2022). Hence, these seasonal government allowance payments might be the reason behind this fluctuation. Based on the past data, government payment through MFS might not have stable growth in future.

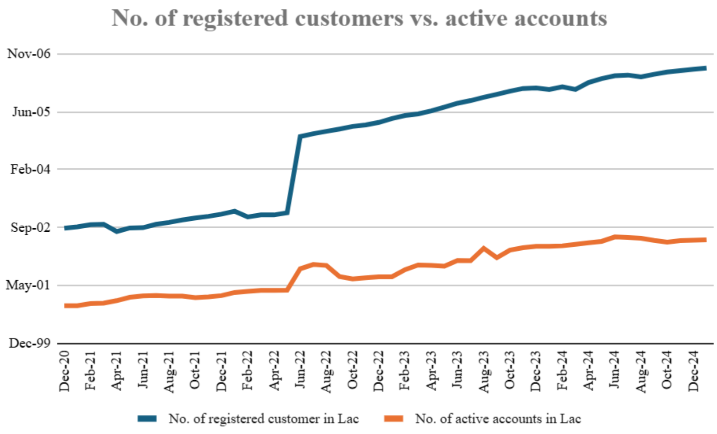

Figure 38: No. of registered customers vs. active accounts

The graph titled "No. of registered customers vs. active accounts" shows the comparison between comparison between registered customers and active accounts. Both have an increasing slope, and the registrations had a drastic rise during the period of June 2022 to August 2022. However, there is a significant difference between the registered customers and active accounts. The lower active accounts indicate inefficiency in long-term customer retention.

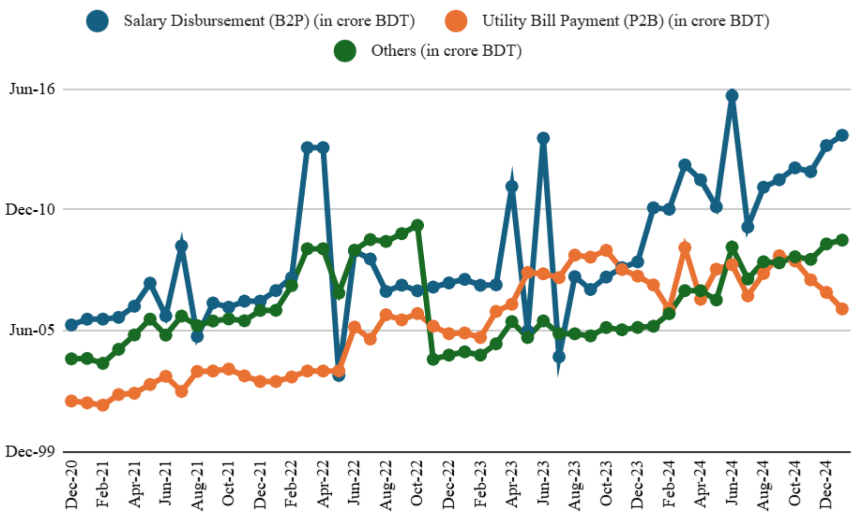

Figure 39: Comparison between B2P, P2B and other transactions.

The above graph illustrates the trend in the usage of B2P, P2B, and other services. Notable fluctuation is visible in salary disbursement (B2P); especially in August 2023 it had the highest spike, and 2 sharp drops are visible in May 2022 and June 2023. Utility bill payment (P2B) also shows a volatile trend, but the fluctuation is lower compared to B2P and other services. Moreover, all three products illustrate a volatile but upward trend in the long run.

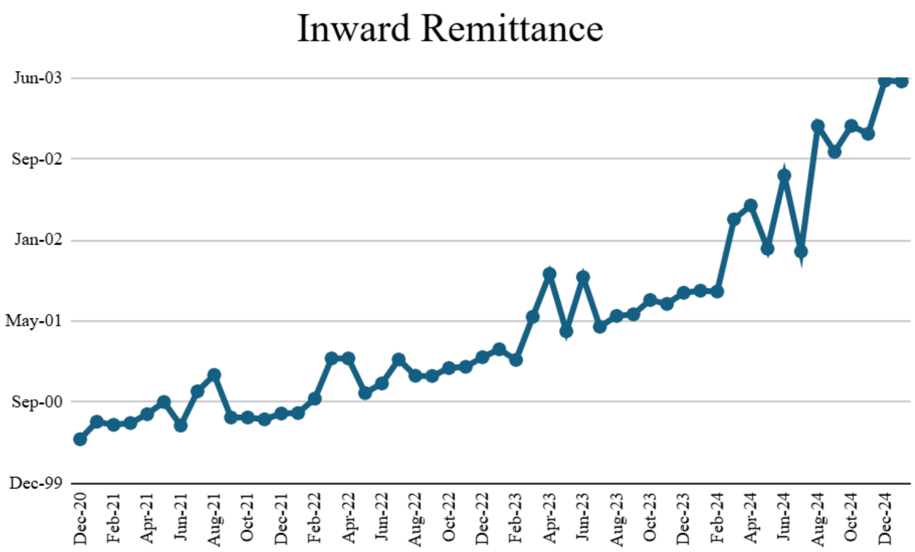

Figure 40: Inward remittance.

Lastly, the Bangladeshi migrants use MFS to send remittance, and this above-mentioned chart shows the steady upward trend of inward remittance over the last 5 years. Because of hassle free transactions the migrant workers prefer MFS companies to send their remittances, which increases the necessity of MFS providers.

To conclude, the above discussion demonstrates that all the MFS services have had an upward trend over the last 5 years. Hence, it is expected that the products will have sustainable demand in the future. Besides, some of the products (e.g., B2P, P2B, government payments) had fluctuating trends yet upward slopes in the long run. Therefore, based on the upward trend over the last 5 years, it is expected that the MFS industry will have a high demand in the future, and will sustain in the market through providing innovative financial services.

3.4.2 Forecast of the sales of next 5 years:

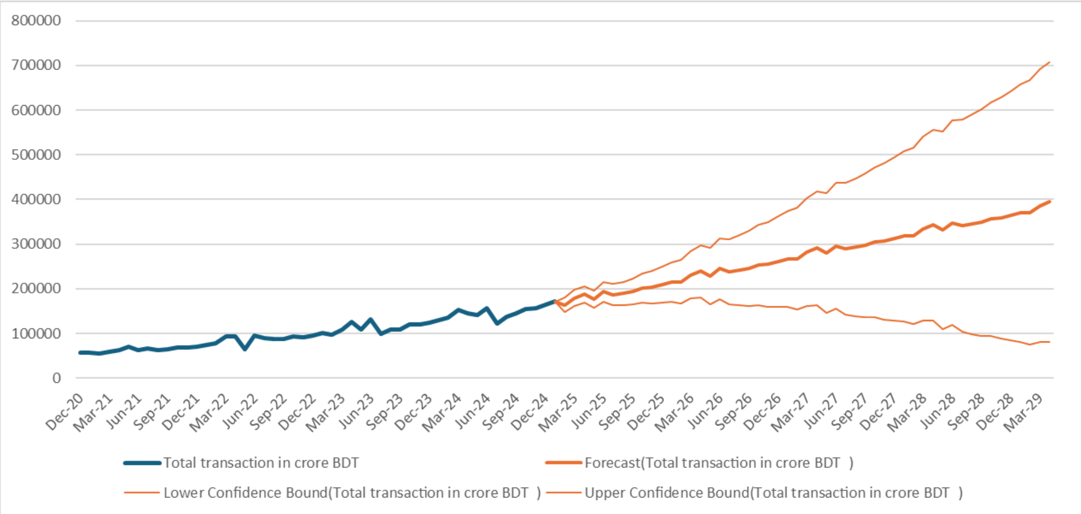

Figure 41: Sales forecast for the next 5 years

The above-mentioned line chart illustrates the total transaction that happened and expected to happen through MFS. The blue line shows the transaction volume of the last 5 years, which is not linear, there is some fluctuation over the last 5 years. As discussed earlier, government payment, and B2P transactions had a notable fluctuation. Hence, “FORECAST.ETS” formula has been used to do the forecast with the past cyclical sales values. The FORECAST.ETS function uses an exponential triple smoothing algorithm to forecast the future sales or any data points. In the above chart, the orange lines illustrate the sales predictions. The middle orange line is the forecast with the confidence interval of 95%, and the thinner orange lines display lower confidence bound (pessimistic estimation) and upper confidence bound (optimistic estimation) of future sales. Therefore, if the confidence interval is 95%, then 95% of the future sales will fall between the two thin orange lines. The chart shows an upward trend, which indicates the MFS industry is anticipated to grow more in the upcoming years. Additionally, within March 2029, the total transaction volume is expected to reach between 80,000 to 7,00,000 crore BDT.

3.4.3 Revenue growth forecast of Nagad Ltd.

Bangladesh Post Office owns 51% share of Nagad Ltd, and the partnership is based on revenue sharing. According to the revenue sharing agreement, Nagad shares 51% revenue with BPO on the amount that it receives after deducting all kinds of commissions (e.g., fees of agent, merchant, DSO, distributors).

Years	The amount of profit Nagad shared with BPO (in crore)	Remaining 49% of revenue (in crore)	Total revenue (51%+49%) (in crore)	Annual growth rate	CAGR
2020	1.12	2.20	3.32		70%
2021	3.32	6.51	9.83	196%	
2022	4.45	8.73	13.18	34%	
2023	5.5	10.78	16.28	24%	

Table 4: Nagad's revenue & growth rate

The table 4 shows the revenues that Nagad Ltd earned from 2020 to 2023. This is not the gross revenue, rather the amount came after deducting all kinds of commissions. According to The Daily Star (2024), Nagad shared 51% from its revenue amount with BPO, and based on the data I have calculated the remaining 49%. Hence, the total revenue after deducting the commissions (e.g., fees of agent, merchant, DSO, distributors) are 3.32 crore in 2020, 9.83 crore in 2021, 13.18 crore in 2022, and 16.28 crore in 2023, which shows a linear up-ward sloping trend. Furthermore, to find the annual growths, I used the formula (ending value-beginning value)/ beginning value. According to this, the annual growth rates are decreasing. Secondly, I have used the Compounded Annual Growth Rate (CAGR) method, to calculate the annual growth rate. The CAGR method may give accurate growth rate because the revenue growth is not volatile. According to the CAGR, the growth rate is 70%.

Revenue forecast by using CAGR (in crore)	
2024	27.68
2025	47.05
2026	79.97
2027	135.92
2028	231.03

Table 5: Revenue forecast with CAGR

The table 5 shows the revenue forecast from the year 2024 to 2028. I stated the forecast from 2024 because the annual revenue from 2024 is not publicly available. According to this projection, the revenue is growing, and it will go to 231.03 crore within 2028. However, the on average growth rate of 70% made the revenue prediction significantly higher. Thus, I used the FORECAST.LINEAR formula from excel because the past revenues had a linear growing trend.

Years	Forecasted revenue using FORECAST.LINEAR (in crore)
2024	21.21
2025	25.44
2026	29.66
2027	33.89
2028	38.11

Table 6: Revenue forecast by using FORECAST.LINEAR

The table 6 shows the revenue forecast that I conduct by using the FORECAST.LINEAR formula from excel. Based on the prediction, the revenue is expected to reach 38.11 crore in 2028, and this prediction seems more realistic compared to the amount that we predicted by using CAGR.

To sum it up, like the growing industry growth, Nagad Ltd has potential revenue growth. As stated earlier, Nagad holds the second position in the MFS industry; hence, its forecasted revenue growth is consistent with the industry growth.

3.4.4 Discussion of different types of risks & risks management techniques:

Different types of risk:

- **Reputational risk:** Reputation plays a vital role in every company's success. Bad news can spread quickly compared to good news. For instance, negative media coverage related to fraud or security issues can have a negative impact on customers' confidence. Consequently, if customers do not feel confident about the product, they might shift to the substitute product or company. Furthermore, if Nagad does not have adequate support and resources, then rapid growth in sales might result in poor service or delay in service. As a result, it will impact the reputation of the company.

- **Operational risk:** MFS providers can face challenges while providing their services. For instance, server and app crashes, technical glitches, and transactional failure are the common challenges that MFS providers face. Furthermore, willing or unwilling mistakes can be made by the employees. Therefore, MFS companies need to tackle several risks in their operational activities. Hence strong business and technological controls, use of cryptographic and encryption for confidential information of users in digital space, VAPT testing to check whether controls are functioning well, adequate physical security over the key installations and places, proper IT application and general control policy, well-structured process, procedures, SOP, SOD and authorization process can help to minimize the operational risk.
- **Cybersecurity risk:** Cybersecurity is a crucial factor that MFS companies need to ensure. Hence, Nagad users need to do multi-factor authentication. For instance, all the users need to provide PIN, and OTP to prevent fraud. Furthermore, it has an Intrusion Detection System (IDS) to protect from DDos attack. There are some company's employees who work as white hat hackers by trying to find out weaknesses before the black hat hackers do. Besides, Nagad has a dedicated information security team, robust IT infrastructure and benchmark standard configurations. Also, it conducts regular internal and external information security audits.
- **Regulatory and Compliance risk:** MFS companies need to stay updated with the government's regulatory framework and policies. Otherwise, their activities will be against the law, and there are penalties for non-compliance activities.
- **Financial risk:** MFS companies need to maintain a minimum paid up capital of 45 crore, otherwise they will be penalized. Hence, it has financial risks that need to be addressed. Also, many foreign investors invest in the company, and if they altogether want to withdraw their money, then MFS companies will face massive financial risk.

- **Market risk:** Economic downturn can negatively impact on the spending patterns of the customers. For example, during inflation customers might do less transactions, which will decrease the revenue of the MFS companies. Furthermore, the MFS companies need to pay foreign investors and for that currency fluctuation can be an issue.
- **Risk from third-party:** As stated above, Nagad is not directly connected to the customer, rather it connects with customers through numerous third parties (e.g., distributors, DOS, and agents). While working with the AML team I saw several fraud cases where the agents did not provide cash to the customers after cash-out. Hence, fraud or poor performance from the third-parties end can hamper the reputation of the company. Also, MFS needs to rely on MNOs and other IT services provider companies, and their poor performance can hamper the operational activities of the MFS companies.

Three prominent risks among the above mentioned 7 kinds of risks that MFS companies face:

I have listed 7 types of risks that MFS companies mostly face, and according to my observation, among all of these risks the cybersecurity, reputational and third-party risk has the most severe impact on the growth of MFS companies. For instance, while working with the AML team I encountered many cases related to PIN and OTP sharing, where the victims receive fake calls or SMS. These kinds of incidents increase fear among the customers, and they start thinking that using an E-wallet might be risky. Hence, ensuring cybersecurity is crucial for every MFS provider company to have a sustainable growth. Secondly, the reputational risk has a prominent impact on the growth of MFSP because customers want to keep their money safe. Yellow journalism and negative news spread fast, which negatively impacts the growth of MFS companies. Lastly, the third-party risk is another notable risk that I have observed. As stated above, Nagad connects with the customers through distributors, DSO and agents. Hence, Nagad does not directly serve its customers, rather the customers receive Nagad's services via third parties. I came across several cases where the agents did fraud to the customers. For instance, the customer did cash out to an agent's number, but the agent did not pay cash to the customer. Therefore, third-party risk can negatively impact the growth of MFS companies, and the MFS providers need to efficiently tackle this risk because the services are served by the third-parties.

Risk management techniques:

The above discussion demonstrates that MFS is a growing industry, and the industry is expected to grow more in the upcoming future. Nevertheless, the MFS companies need to face several challenges related to data protection and fraud. Hence, proper risk management techniques are crucial for MFS provider companies to ensure sustainable growth of E-wallet usage. The following discussion analyzes how Nagad Ltd. manages its risks to ensure its sustainable growth, and the contribution and policies of Bangladesh Bank for the risk management of MFS companies.

Contribution of the Internal Audit (IA) team:

Nagad's IA Team conducts audits based on a risk-based annual audit plan which was approved by the Board and senior management at the start of the year and accordingly IA covers the audit areas on risk priority basis. IA has an internal audit charter, manual and procedures all are according to the Global Internal Audit Standards. Also prepare audit plans and procedures by following regulations from the regulatory stakeholders including BB, BFIU, NBR etc. Hence, to improve Nagad's operation and to protect organizational value the internal audit (IA) team works independently and observes the business and support operations. Hence, it helps

Nagad to run its business in a systematic and disciplined manner. The head of IA periodically reports to the Board / CEO regarding their observations. The IA maintains an objective and independent view while reviewing the activities of different departments. The internal auditors stay updated with the new policies, rules and regulations which are established by distinct regulatory authorities to ensure that the company is doing their operations properly. For instance, according to the income tax ordinance 2023, the vendors need to provide Proof of Tax Return Submission. The supply chain department can make a mistake unwillingly by not collecting the tax returns, which will create a problem for the company. Hence, IA independently checks the documents to ensure that unwillingly or willingly no employee is doing unlawful activities. Moreover, the internal auditors do regional visits to gather primary data from agents and merchants, which enables them to observe the issues that the merchants and agents face.

Contribution of the Anti-Money Laundering (AML) team:

The Anti Money Laundering (AML) department reviews the complaints of individual customers. If a customer conducts fraudulent activity, then Nagad immediately suspends that customer's account. They use real-time fraud monitoring software to detect abnormal transactions. Mostly, the beneficiary by themselves comes to the Nagad customer service point to surrender, then the AML team evaluates the issue. Besides, Nagad takes written apology, and NID of the beneficiary. Moreover, the AML team regularly checks the transaction patterns of the customers, and if they find any abnormal trend then they immediately suspend the account to prevent money laundering. Apart from that, Bangladesh Bank can suspend the accounts of the suspected customers.

DKYC:

To reduce fraudulent acts, Nagad launched electronic KYC (Digital Know Your Customer) for the first time in Bangladesh (The Daily Star, 2021). The DKYC reduced the risk of money laundering and fraud. Also, it made the verification process faster and cost effective compared to the traditional KYC.

Cybersecurity:

Cybersecurity is a crucial factor that MFS companies need to ensure. Hence, Nagad users need to do multi-factor authentication. For instance, all the users need to provide PIN, and OTP to prevent fraud. Furthermore, it has an Intrusion Detection System (IDS) to protect from DDos attack. There are some company's employees who work as white hat hackers by trying to find out weaknesses before the black hat hackers do. Furthermore, the employees need to use VPN while working with sensitive information (e.g., customers' information).

MFS regulations by Bangladesh Bank:

Bangladesh bank issued an updated regulation in 2022, called "Bangladesh Mobile Financial Services (MFS) Regulations, 2022". Through the regulations mentioned below, Bangladesh Bank ensures proper risk management of the MFS companies:

- Mobile Financial Services Provides (MFSP) need to provide at least 51% of its share and control of the board to the government entity, commercial bank or a financial institution which is licensed by Bangladesh Bank (Bangladesh Bank, n.d.). Hence, those entities can observe the MFSP and guide them in risk management. In case of Nagad, Bangladesh Post Office (BPO) has the subsidiary, which reduces the default risk of Nagad because this government entity regularly monitors the business.

- Bangladesh Bank (BB) regularly monitors the MFS providers and provides guidance to ensure efficiency and safety.
- The issued e-money will be kept in a scheduled commercial bank, and the account name is Trust Cum Settlement Account. Hence, MFS providers cannot use the customers' money, rather the e-money will be transferred to a scheduled commercial bank. Nonetheless, 20% of its customers' money can be invested in government securities (e.g., T.bill, Government bonds).
- To run the operation 45 crore BDT of paid-up capital needs to be maintained by the MFSP, which also reduces the default risk. However, Bangladesh Bank can increase the required amount of this paid-up capital based on the risk factors.
- MFSP cannot take deposits or lend its customers money.
- If any dispute happens, then the MFS provider needs to resolve that by 10 working days. In addition, customers can directly complain to the Customer Interest Protection Center (CIPC).
- Every year MFS providers are obligated to submit the financial statements to the Bangladesh Bank, and those statements need to be audited by reputed external audit firms.

3.4.5 Interaction between growth rate and potential risks:

As discussed above, efficient risk management helps Nagad to ensure sustainable sales growth, but sales growth can increase the risks as well. For instance, Nagad connects with its customers through distributors and agents. If sales increase, the agents and distributors will increase as well. Hence, any misconduct by the distributors and agents will increase the third-party risk.

Secondly, increasing sales growth requires additional operational resources and technical support, and inadequate resources can cause delays in their operational activities. For example, during festive times the sales growth increases a lot, which causes a sudden traffic spike. As a result, the website and Nagad app slowed down because an immense number of users were using the app or website at the same time. Consequently, this delay can create dissatisfaction among the customers, and the customers may move to substitute services. Moreover, it increases the reputational risks as well.

Therefore, efficient risk management helps to ensure sustainable sales growth, but sales growth increases potential risks as well. Hence, both sales growth and risks move in the same direction; if one increases, then another one will increase. Thus, with sales growth it is necessary to strengthen the risk management techniques to ensure sustainable sales growth.

3.4.6 A brief discussion on how Artificial Intelligence (AI) is going to impact this industry

Firstly, AI can make the customer’s service smoother through assisting the customer 24/7 via AI chatbots. Already AI is analyzing the customers’ behavior, and it offers services based on the customer’s spending habits. Moreover, AI made the fraud detection process more effective. For instance, the Anti Money Laundering (AML) team regularly monitors the transactions patterns of the users with the help of AI and sends warning letters if they find any unusual transactions. Furthermore, AI can help in doing credit scoring based on the customer’s MFS service usage pattern. Hence, MFS customers can get loans without getting involved in traditional banking. Besides, in Nagad we still manually check the KYC, but it can be automated with the help of AI. Additionally, for illiterate or visual impairment customers voice-enabled AI assistants can be very helpful. Moreover, it is predicted that there will be a virtual world called Metaverse where people will conduct regular activities (e.g., trade, work, education) like they are doing in the real world (Hossain et al., 2024). Therefore, in Metaverse MFS can play a significant role by offering payment and other financial services. Therefore, in the era of AI, MFS companies are working as a backbone to smoothly run the financial activities.

3.5 Summary and Conclusions

In a nutshell, the MFS industry had drastic growth over the last 5 years, and according to the forecasted results, it will grow more in the upcoming years. In addition, by March 2029, the monthly total transaction volume is expected to reach between 80,000 to 7,00,000 crore BDT. Furthermore, as a market's second player, Nagad had a growing revenue trend over the past years, and it will grow more based on my forecasted result. Additionally, in the era of AI, MFS companies are expected to have higher growth because through MFS we can do cash-less transactions. Hence, the cash-less transaction can be controlled more efficiently with the help of AI. Nonetheless, there is a significant gap observed between the registered customers and active customers, and this gap can be reduced through making people aware of the additional benefits that MFS companies provide in comparison to traditional banking services. Moreover, MFS companies face substantial challenges while protecting their customers from cyber threats and fraud. Hence, proper risk management techniques play a vital role in ensuring the sustainable growth of MFS companies. Nagad has multiple departments (e.g., AML, IA, ICC) to evaluate risks of non-compliances, process gaps or fraud, and to provide recommendations or action plans against those fraudulent activities Besides, Bangladesh Bank regularly monitors the activities of the MFS providers and imposed some universal rules and regulations to assure that MFS companies are efficiently performing its risk management activities. Therefore, the

MFS industry has remarkable future growth, but the MFS providers need to efficiently perform their risk management activities to ensure sustainable growth.

3.6 Recommendations

1. Nagad can use synchronized ERP software to maintain the consistency of the data of distinct departments.
2. If the government gives permission for digital banking activities (e.g., loan taking, deposits, investing) through MFS, then the MFS can grow more. Also, it will enhance financial inclusion and literacy.
3. MFS companies are not listed, but they can publish their financial statements to maintain transparency. Being a private company, the MFS providers are not liable to publish the financial reports. However, Nagad can publish it to ensure transparency, and to gain the faith of its stakeholders.
4. To reduce fraud, Nagad can incorporate face ID verification for its customers during every transaction. However, there is a challenge that the customers may not have access to the camera. Hence, Nagad can enforce semi-annual password updates, and a strong password policy. The combination of numeric and alphabet pin numbers is stronger compared to 4 digits of numeric password.
5. The Nagad app can show the customers' transaction history of the last 6 months.
6. Nagad can host regular awareness programs to educate the users regarding scams.
7. Can introduce a separate team only to respond to fraudulent activities, and that team will give impromptu responses to the victims.

8. Collaboration among the MFS providers can give an impactful outcome in the growth of the overall MFS industry. For instance, the customers can transfer their money from Bkash to Nagad and vice versa.

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Appendix A.


CERTIFICATE
OF PARTICIPATION

Nurunnesa Begum Momo
Internal Audit
has successfully completed the training on
Business Development & Strategic Planning in a Fintech World.
Date: April 21, 2025

Sirajus Salekin
Head of Pricing, Campaigns, & Business Planning

Shaharear Sayeed
Head of Human Resources


CERTIFICATE
OF PARTICIPATION

Nurunnesa Begum Momo
Internal Audit
has successfully completed the training on
ABCs of Mobile Financial Services (MFS)
Date: February 10, 2025

Salahuddin Mohammed Yousuf
Head of MNO & Strategy
Strategy & Channel Management

Shaharear Sayeed
Head of Human Resources


CERTIFICATE
OF PARTICIPATION

Nurunnesa Begum Momo
Internal Audit
has successfully completed the training on
Customer Service.
Date: April 09, 2025

Sabbir Ahmed
Head of Customer Services

Akhtarul Amin
Assistant Vice President
Nagad Sheba