Report On

Stock Valuation of FMCG Company in Bangladesh: A Comprehensive Fundamental and Technical Analysis of Marico Bangladesh Limited

By

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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
January 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:

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Letter of Transmittal

Mohammad Mujibul Haque, PhD
Professor and Associate Dean (Acting Dean),
BRAC Business School
BRAC University
224, Merul Badda, Dhaka 1212

Subject: Submission of Internship Report on "**Stock valuation of FMCG Company in Bangladesh: A comprehensive fundamental and technical analysis of Marico Bangladesh Limited**"

Dear Sir,

I am pleased to turn in my internship report, "Stock valuation of FMCG Company in Bangladesh: A comprehensive fundamental and technical analysis of Marico Bangladesh Limited," which is a prerequisite for completing my internship at Marico Bangladesh Limited. I have worked diligently to complete this report containing significant analysis, and well-considered suggestions in an accessible, clear, and comprehensive manner.

The expertise and experiences that I obtained while employed as an intern at Marico Bangladesh Limited pursuant to your supervision are fully conveyed throughout my report.

Sincerely yours,

Mridula

____

Samayla Tazin Mridula
21104064
BRAC Business School
BRAC University
Date: January 29, 2025

Non-Disclosure Agreement

This Non-Disclosure Agreement (the "Agreement") is made on 19th of January between Marico Bangladesh Limited (the "Company") and Samayla Tazin Mridula (the "Student"), 21104064 ((the "Student ID") a student at BRAC University interning at the Company.

I also understands that during the period of internship I may be exposed to confidential information of the company. I also understands that I owe no-one but my internship supervisor any information presented to and/or learned in class and that no such information will be disclosed to any third party without express written permission.

Confidential information must not be disclosed after I have finished my internship, unless it has become public domain by way of non-breached of this Agreement.

Signed By,

Mridula

Samayla Tazin Mridula
21104064
BRAC Business School
BRAC University
Date: January 29, 2025

Authorized Representative

Marico Bangladesh Limited
Date: January 29, 2025

Acknowledgement

Primarily, I want to express my gratitude to Md. Shahinul Islam, Company Secretary, Marico Bangladesh Limited, and his persistent direction, invaluable assistance, and constructive criticism throughout my internship. I have been able to successfully complete my internship report, "Stock valuation of FMCG Company in Bangladesh: A comprehensive fundamental and technical analysis of Marico Bangladesh Limited," as a result in substantial part to his guidance and encouragement.

Furthermore, I would like to extend my deepest appreciation to Marico Bangladesh Limited for offering me with an opportunity to acquire practical experience in an exceptionally dynamic and inspiring setting. The scope of my understanding has grown significantly as a consequence of this internship, it has also enabled me to utilize what I have learned in the classroom to scenarios from the real world.

Lastly, I would also like to extend my heartfelt thanks to my academic supervisor and co-supervisor: Mr. Mohammad Mujibul Hoque, PhD, Professor & Acting Dean and Dr. Abu Saad Md. Masnun Al Mahi, Assistant Professor from BRAC Business School. They checked my reports from time to time to enhance my performance and guide me how to express the report passionately.

Executive Summary

Based on my research on the company in this report, I performed a fundamental and technical approach to find out the intrinsic value of Marico Bangladesh Limited (MBL), an FMCG company of Bangladesh. The evaluation is intended to give information regarding current stock worth of MBL and offer sound investment advice based on my analysis. I have valuated MBL's stock using methods like DDM, FCFE and relative valuation to determine the company's prospects in terms of financial performance.

In the first chapter, I depicted my internship experience at Marico Bangladesh Limited. This entails a description of my role in MBL which includes creating a dividend tracker, reconciliation of the dividend payments etc. Finally, challenges that I have faced and recommendations that I suggested for the improvement of the internship programme are given.

In the organizational analysis, the research covers a thorough assessment of the company's management system, marketing strategies, financial and its operational performance. Strategic management concepts regarding MBL's leadership style, its HR practices, and sustainable strategies are analyzed. The paper also looks at MBL's current marketing strategies to sustain its competitive advantage within the FMCG industry. I have also analysed MBL through using the financial valuation ratios that show its financial performance during 5 years concerning liquidity, profitability, and efficiency etc. The operation and information system practices along with industry analysis are also done.

In the last part, MBL's return distribution, Capital Asset Pricing Model and beta has been calculated to capture the overall performance of MBL's stock. Then based on my fundamental and technical analysis, investment recommendations are given for investors who are holding the MBL stock or thinking of buying the stock. The results drawn in this study show that MBL has been financially healthy throughout the years, stable dividend policies, optimal cost control measures and right market positioning.

Moreover, a brief assessment of investment of MBL with its two closest rivals Unilever Bangladesh Limited and Reckitt Benckiser Bangladesh Limited has been analysed thoroughly by using beta, return distribution and Monte Carlo Simulation.

Therefore, the aim of this research is to provide a detailed basis for MBL's business, operational, and financial analysis and to offer practical recommendations to shareholders whether to buy, sell or hold the MBL stock based on my fundamental and technical analysis. The study thus confirms the need to use financial and operational performance measures to assess the worth of MBL's stake.

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Overview of Internship

1.1 Student Information

Name: Samayla Tazin Mridula
ID: 21104064
Program: Bachelor of Business Administration (B.B.A)
Major: Finance

1.2 Internship Information

1.2.1. Period, Company, Department, Address

My internship in Marico Bangladesh Limited (MBL) started in 14th of October, 2024 and since it is a 3-month period internship, it has ended in 14th of January, 2025. MBL is the second best multinational FMCG manufacturing company in Bangladesh and I was selected in the finance department, which perfectly aligns with my educational background. My workplace was the MBL Head Office at the 6th and 7th floor of Glass House, 38 Gulshan Ave, Dhaka 1212.

1.2.2 Internship Company Supervisor Information

My onsite supervisor in MBL was Md. Shahinul Islam who is the new Company Secretary of MBL. He has joined MBL in July 2024 and before that, he used to work at Unilever Bangladesh Limited as Assistant Company Secretary. Since he was my line manager, I have worked for him directly throughout my whole period and assisted with his work.

1.2.3 Job Responsibilities

My biggest project was making the dividend tracker for MBL dividend payments from FY 2019 to 2023. Shareholders of MBL's get their dividend payment from the City Bank but the bank statement of City Bank was very inefficient to track the unpaid dividend. Which is why my main project was to create an Excel file for all the dividend payments MBL had from 2019-2023. Based on that I have done a thorough reconciliation for all the MBL dividend payments.

The reconciliation was required to compare the records of MBL's dividends with City Bank's records to find any unrecognized unpaid dividends. This process eliminated the inefficiency and made the procedure of finding unpaid dividends easier.

Impact of the Reconciliation:

- **Accuracy:** Made sure the dividend tracker aligned with all payments and pointed out dividend that had not been paid.
- **Transparency:** Increased reliability in their communications with the shareholders.
- **Compliance:** Met the legal requirements hence reducing legal vulnerability.
- **Shareholder Trust:** Payment of unpaid dividends to the shareholders raising satisfaction levels.
- **Process Improvement:** Yielded with inefficiencies and recommended enhancement of tracking for future use.

Secondly, I have helped in the documentation for re-appointment of 3 independent directors of MBL. Following the BSEC processing, I have made sure the Credit Information Bureau (CIB) Undertakings for the independent directors were up to date. This entailed checking details such as ownership records, legal and financial requirements. I was involved in writing and presentational aspects of documents in the form of undertakings, to make them ready for contractual signing at the AGM and to conform to professional and legal requirements.

1.2 Internship Outcomes

1.3.1 My Contribution to MBL

As an intern of MBL, I was able to participate in several distinctive projects that could improve the value of the company and its functioning. They made me responsible to help them in preparing some documents for the reappointment of independent directors. As part of this, all legal and financial documents related to my task were to be precise and the most current. Furthermore, I drafted Credit Information Bureau (CIB) undertakings observing the corporate governance guidelines. One of the programs that I created involved the creation of a strong dividend tracking system. All the dividend payments done by MBL in the period between 2019 and 2023 were documented by this tracker. This I used to reconcile MBL's records with the bank statements from City Bank, I managed to find out the unpaid dividends as well as making sure that other issues that would have led to different figures on the two statements had been worked out. Through this project, the dividend management structure was made efficient, time was saved and most importantly, shareholders' confidence was strengthened by compliance to existing corporate governance rules. In these areas, I made some contributions that helped MBL to enhance the accuracy and reliability in its financial activities.

1.3.2 Advantages for the Student

My internship at Marico Bangladesh Limited was oriented with great lessons which helped me to build up professional and personal experiences. In addition to job experience, I gained some amount of corporate culture, business etiquette, oral and written communication, interpersonal skills etc. Not only did this practice help me improve my performance but it also helped me to get ready for the corporate world.

I also enhanced my financial literacy and tried to understand how the financial situation of a business organization operates and since I dealt with the company secretarial work, I got to know the laws a listed company has to maintain. During my undergraduate major course, I focused on the capital market, security analysis courses mostly rather than the company law of an institution. So, working in finance department of a manufacturing company gave me a lot of knowledge and insights on this company secretarial role.

During my internship at MBL, I had a unique chance to build relationships and communicate with the professionals of the finance field. These interactions provided me with the opportunity to learn more about the industry standards and specific business workflow, as well as draw information straight from individuals with practical work experience. Since I worked vigorously in expanding my professional circle in Marico Bangladesh Limited, I was able to gain connection that can greatly impact my future career advancement. And this will be a great help for me in the future for any kind of professional development or career opportunities.

1.3.3 Challenges

While observing beneficial attributes in MBL, there are notable challenges that shadowed my internship experience as well. First of all, commuting from my home in Narayanganj to the office in Gulshan 1, Dhaka was a big problem. The journey took me 2 hours to reach office. Therefore, I had to leave from home at 7 A.M. in order to arrive at the office on time. As a result, I decided to move to my grandmother's house because it was near my office.

Secondly, the absence of a personal desk in the office was the major difficulty I faced. There were 315 employees at my organization, and only 2 floors are occupied for MBL, which resulted in a lack of space in the office. So, I had to sit with the sales team since the finance area was filled for most of my internship period. This also limited my interaction with the actual workings of the department as a close observer.

Finally, the laptops used were an issue. The first laptop was slow and had no possibility of an update; I had to get 2 replacements for it. Nevertheless, I managed to achieve these goals and successfully perform my tasks.

1.3.4 Recommendations

After doing my internship, I suggest MBL's "Impact 90 Internship Program" for students who are willing to work in a manufacturing company. But I also have a few suggestions for the future interns as well as the organization that can be considered to make the workplace even more efficient.

Firstly, interns should be polite and speak out. All employees of MBL are friendly and helpful at the company, which is a good and favorable attribute as well. If interns articulate their challenges, they face, then supervisors and other team members will give proper directions and resolutions.

Secondly, MBL should ensure that interns are given separate desks in individual departments. That will enable interns to interact with the teams more effectively. Moreover, since interns are usually freshers a weekly feedback session from the on-site supervisor would be a great help for the interns. Therefore, it is advisable and will be productive to have weekly feedback with interns in order to help them learn more and feel valuable in the organization. It also provides opportunity to the company to look into their concern or suggestion which intern may have.

Additionally, MBL may provide the interns with a short lesson on how to use basic tools and applications that are used at the company. This would assist interns to gain enough touch with other tools such as MS Excel, project management tools among others and software relevant to the industry. This preparation would make sure that interns are ready to work from the word go and increase the value of internships.

Finally, MBL should also enhance the laptop given to the interns to make sure they are working and of the latest model. For instance, new software versions that may include MS Excel would ease the working challenge of interns.

Chapter 2
Organizational Part

2.1 Introduction

This study highlights the company background and market analysis of Marico Bangladesh Limited (MBL), which is a multinational company in Bangladesh operating under the Fast-Moving Consumer Goods (FMCG) industry in personal care, health and home products. Currently, its leading product in the hair care category Parachute holds a major market share for the company and has other products as well which are popular in Bangladesh including Saffola, Hair & Care and others. The objective of this paper is to analyze the market conditions of MBL in concern to the changing environment of consumer goods market in Bangladesh.

2.1.1 Objectives

The overall objective is to provide an overall overview of Marico Bangladesh Limited and do an analysis of the company's operation.

The specific objectives of this study are:

- To analyze the leadership, organization chart, decision-making process and overall human resource planning process of Marico Bangladesh Limited (MBL).
- To evaluate the marketing activities implemented by MBL which are used for increasing the brand awareness, customer attention, and market coverage.
- To assess the financial profitability and accounting activities in MBL by using vertical analysis and the most significant financial ratios such as Liquidity Ratio, Solvency Ratios, Efficiency Ratios, Profitability Ratios, and Market Value Ratios.
- To gain an understanding of MBL's operation management and its information system processes.
- To analyze the overall industry and competitive environment where the trends of the market in relation to MBL are identified.

2.1.2 Scope

The information provided in this research can also be further expanded to provide more comprehensive insight into the operations of Marico Bangladesh Limited. In the future, if more data is collected it can be incorporated into this research in a bid to provide more a more detailed analysis. This will make it easier to review the organization's Human Resource Management, marketing plan and financial performance and the extent of compliance to accounting standards.

With the help of this information Marico Bangladesh Limited can get better insight of their current positioning and strategies and they can take action according to this information along with their own observation. First of all, it can be useful for the organization; secondly, such research can be useful for individuals who would like to learn more about Marico's business activities and the strategies it implements.

2.1.3 Methodology

This paper starts with vision and mission statement, and the core values, followed by the key products and services like Parachute, Saffola, and Hair & Care of Marico Bangladesh Limited (MBL). The information is mainly accessed from the annual reports and MBL's own website. In order to understand the management practices of MBL, their leadership approach, remuneration policies, and performance assessment techniques are examined. These data were mostly collected through published materials and their own website.

Then under MBL's marketing practices, the brand image, advertising, and marketing communication and channels are explained. These data are mostly collected from secondary sources on online and published news articles like The Business Standards and The Financial Express.

Moreover, financial data of MBL are collected from the 2019-2023 annual reports of MBL. Then the financial ratios such as the liquidity, solvency, efficiency, profitability, and market value ratios are computed for the company and analysis is made on the company's financial health and market position from 2019 to 2023.

The operations management of MBL is evaluated in relation to its supply chain management, manufacturing operations, and distribution. This is based on information from annual reports, industry journals and published news.

The study also involves the industry analysis of the FMCG industry of Bangladesh along with the competitor analysis of MBL. The information of existing market trends, competition is gathered from industry publications, research journals, and other reliable source.

2.1.4 Limitations

One of the possible limitations of the study is inconsistency in accessing detailed internal data of MBL as it is limited. The study relies mostly on the information that is freely available to the public; thus, critical company data may not be accessible to the public hence limiting the level of analysis done in this study. Also, the analysis is done using information that was available up to the year 2024 ended on March and, as such, changes in the market conditions or the performance after this may not be reflected in this study.

Also, for some detailed insights on their HR and management practices I wanted to take an interview with the HR of MBL but unfortunately the results were not effective and the interview could not take place. Which is why I tried to make surveys for my data collection on MBL but the participants were very hard to manage.

2.1.5 Significance of the Study

The purpose of this research is significant for both me and to Marico Bangladesh Limited (MBL). From this research, I have been able to gain a lot of understanding on how MBL operates in the cutthroat industry of Fast-Moving Consumer Goods (FMCG). I have built knowledge on how the company operates and how it deals with its products, and its financial and operational issues. I also learned about how MBL is threatened by its competitors, laws, and environment.

To me, this study has been an eye opener in terms of conducting business and how an organization especially in FMCG operates, regarding management, sales, marketing, and finance, and operations. It has also provided me with better insight into decision-making process in a firm and what factors can contribute to the success of the company.

This research also shows that there is still potential for MBL to expand its organizational capabilities in managing, marketing or financial operations. Based on this study MBL can take any notes that they think would help them or any person reading this would get an idea about my work experience in MBL and my verdict. The study also notes what is driving MBL's success and how they can improve these further.

2.2 Overview of the Company

2.2.1 Company Profile

Marico Bangladesh Limited (MBL) is amongst the most popular multinational companies involved in the Fast-Moving Consumer Goods (FMCG) segment of Bangladesh. It is primarily recognized for its flagship product Parachute, a dominant in the haircare segment. Besides that, in its portfolio, MBL has personal care, health products which are popular and widely used in Bangladesh such as Saffola, Hair & Care and many more. It has achieved considerable growth as a publicly floated company listed both on the Dhaka Stock Exchange (DSE) and Chittagong Stock Exchange (CSE), making it not only a market frontrunner but also an investor's favorite. Rapid Urbanization, shifts in customer preferences and growing disposable incomes have collectively led to Bangladesh's FMCG industry's remarkable progress in recent years (Ahmed Jalal Siam, Aziz, & Tahmid Abtahi, 2023). A key player in this industry, Marico Bangladesh Limited offers a significant contribution to the health and personal care market.

2.2.1.1 Incorporation

Marico Bangladesh Limited (MBL) was established on September 6, 1999 as a wholly owned concern of Marico Limited, a fast-growing Indian consumer good company. The company began its commercial operation in 2000 and has proven itself a key player of the Bangladesh's Fast Moving Consumer Goods (FMCG) market.

2.2.1.2 Key Milestones

- Changed its corporate structure to a public limited company and floated its shares at the DSE and CSE on August 9, 2009.
- Obtained the position of market dominance in the branded coconut oil segment, with the company's popular offering, Parachute Coconut Oil.
- Expanded its product portfolio to the categories of baby care, men's grooming, and the super-premium food brand Saffola.

2.2.1.3 Factories and Infrastructure

MBL operates 3 manufacturing facilities, designed to ensure efficient production and maintain quality. The three facilities are well equipped with modern technological equipment to respond to local and export market requirements.

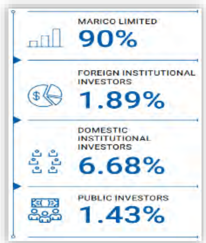
- **Factory 1:** Mouchak, Kaliakoir, Gazipur.
- **Factory 2:** Shirirchala, Mahona Bhabanipur, Gazipur.
- **Factory 3:** Bangabandhu Shilpanagar, Mirsarai special economic zone (SEZ).

2.2.1.4 Future Outlook

MBL is focusing on enhancing the brand equity, diversification of products and market penetration. It seeks to sustain its dominance in the FMCG sector through innovation, adaption of technology as well as adopting consumer orientation strategies.

Moving forward, the company remains well placed for continued growth and promises to create value for its stakeholders. With the continued support of MBL's shareholders, regulators, benchmarked industry, CSR partners and consumers, MBL has the key to sustaining through the ever-shifting operating environment in order to share the best growth path and offer long-term value generating returns.

2.2.1.5 Shareholding Pattern of MBL



The data has been retrieved from the Central Depository Bangladesh Limited (CDBL) as on 31st March, 2024. At present, Marico Limited which is the parent company of Marico Bangladesh limited owns 90% of the stock while 10% being owned by public and institutional investors. To enhance the credibility of the figure 1, distribution of the other 10% is depicted (Marico Bangladesh Limited, 2024).

Figure 1: MBL Shareholding Pattern

2.2.2 Business Profile

2.2.2.1 Mission Statement

Marico Bangladesh Limited is among the leading and rapidly growing FMCG of Bangladesh that is committed to ***"Making a Difference"*** in the lives of people they impact. This mission statement signifies the culture of enhancing consumers' quality, supporting community and creating value to all its stakeholders. MBL aspires to create value beyond business, through trusting relationships, health and welfare, and social innovation for people and the planet (Annual Report 2024, 2024).

2.2.2.2 Purpose

Purpose of Marico Bangladesh Limited is "***Transform in a sustainable manner, the lives of all those we touch, by nurturing and empowering them to maximize their true potential***". This purpose forms the foundation of all the activities that the company undertakes, including producing reliable and quality products as well as supporting communities and the environment. MBL's goal is the betterment of society, the establishment of credibility, and the creation of sustainable impact on the societies MBL is active in (Annual Report 2024, 2024).

2.2.2.3 Ethos

Marico Bangladesh Limited's ethos is ***"Our Way of Being Owner's Mindset, Frugality, Transparency, Integrity, Meritocracy, and Mutual Trust & Respect"*** (Annual Report 2024, 2024).

- MBL adheres to powerful values at work. It promotes an **Owner's Mentality** since the employees are expected to take ownership of their work and does not waste resources;
- MBL appreciates **Transparency and Integrity**; therefore, it promotes trust between employees or entities within the business and outside entities;
- They also follow **Meritocracy**, which means they reward talents and hard workers;
- It is a company that exercises **Mutual Trust & Respect** from its employees to them.

2.2.2.4 Six Core Values

MBL has 6 core values and those are depicted as follows:

Consumer First: MBL always takes a consumer-centric approach and behavior, or more simply: the key goal is to make consumers happy. The company does its best to do more than is anticipated.

Bold Ambition: Believes in aiming high, starting small and learning fast. That is why it stimulates innovation and attempts to upscale the great ideas and solutions.

Responsible Growth: MBL aims at expanding in a way that is constructive to all stakeholders. It seeks to foster the achievement of benefits for the business as well as the stakeholders.

Grow with Members: MBL believes in career development of its team members to recommend their progress and achievement. It offers a potential for growth and training.

Accountability for Outcomes: The company's responsibility is to fulfill it promises. They guarantee that each goal is accomplished optimally to the stated organizational standards.

Execute with Agility: MBL is flexible, agile and always provides the best performance in accomplishing their goals. Being agile makes the company more competitive.

2.2.2.5 Sustainability and Corporate Social Responsibility

Marico Bangladesh has long-term vision supporting sustainability and communities. Comparing to FY '23, the company has successfully implemented 31 sustainability projects to decrease power consumption and carbon dioxide emission in FY ’24 to support sustainability initiatives.

2.2.2.5.1 SWAPNO Program

Figure 2 The SWAPNO Program

The SWAPNO Program is implemented under MBL and UNDP where it targets the ultra-poor women and aims to help them to change their existing poor-quality lives and to find better jobs in rural areas. It offers women employment opportunities with Small and Medium Enterprises (SMEs) and fosters linkages of public and private companies for job creation. SWAPNO also aims at ensuring that women are able to save money as well as learn invaluable skills as well as prepare to face various tests. In total, the program has supported more than 22,680 ultra-poor women headed households in 441 Union in 14 districts to enhance their health, education and income condition. In doing so, SWAPNO empowers women with appropriate resources that have brought many positive and sustainable impacts in rural areas.

2.2.2.5.2 Pro-solve Project Competition Program

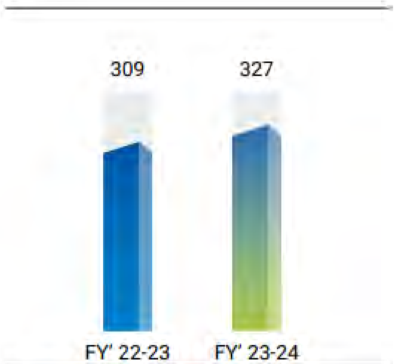


Figure 3 327 Reported Kaizen in FY 24 and 22 PS initiatives & MarVal Projects

In order to facilitate originality and acknowledge the efforts made by the organizing company’s team, a Pro-solve Project Competition Program is held annually. This program enables employees to present their creativity and improvement to senior staff members. In the past year there have been 327 improvement projects and those projects have yielded a net saving of 1.65 crore BDT (Annual Report 2024, 2024). These efforts demonstrate the company’s commitment to performance enhancement and lessons learned from previous performances in order to record better results in the future.

2.2.2.5.3 Reduction of waste and cost

Figure 4 New packaging process for Beliphool

A major advancement this year was the change of packaging of Beliphool products 230 ml and 115 ml bottles. The company adopted a Single Rigid Bottle Filling system to replace the previous combo wrapping method was used. This change eliminated 83% of worker needs and saved 1430 MWH in energy consumption and cut carbon emission by 520 tons proving that MBL has a big emphasis on being environmentally friendly (Annual Report 2024, 2024).

2.2.2.5.4 Energy and Water Conservation for the Future

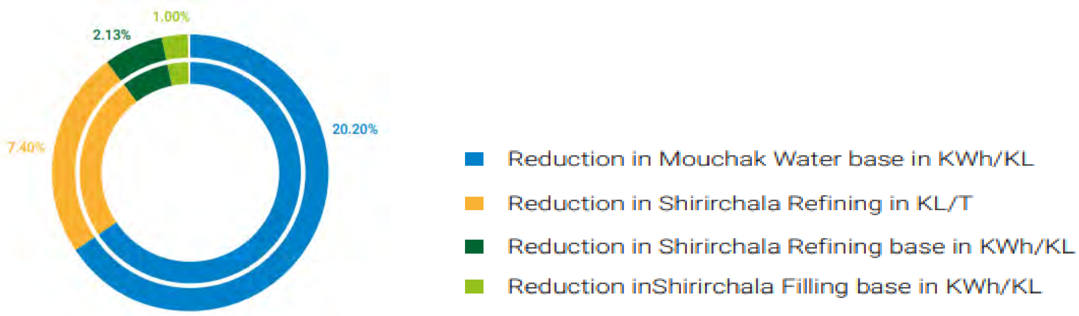


Figure 5 Energy Consumption Reduction Chart

The company also took initiatives in the area of energy and water conservation. Better managerial processes prevented energy use by 20.2% in the Mouchak facility. To conserve water at the plant level, MBL constructed a water storage well with 38, 30,000 liters capacity to store rainwater thus minimizing the draw on ground water. 9 other projects were successfully implemented to cut emission and balance operation without compromising the environment.

2.3 Management Practices

Marico Bangladesh Limited has a customer oriented and result oriented management strategy. It focuses on creativity and productivity improvement, engagement of many different employees. The company has a meritocracy that is enabling accountability and growth through training and other training programs.

2.3.1 Company Organogram

Here is the Marico Bangladesh Limited company organogram along with Management team:

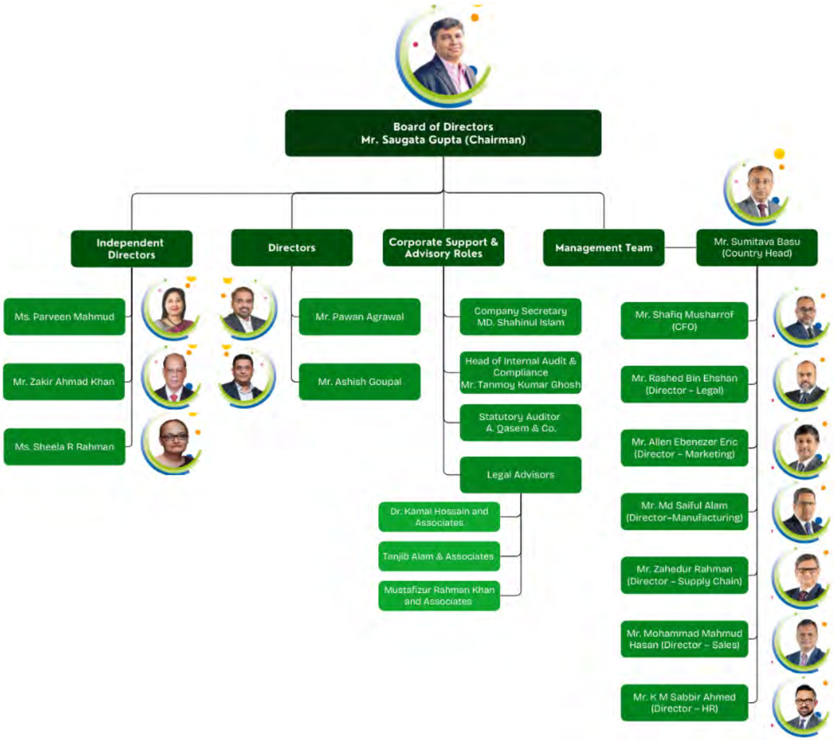


Figure 6 Company Organogram of MBL

2.3.2 Leadership Style and its Impact on Goal Achieving

With respect to my understanding, the leadership at MBL is mainly participative. This means the leadership style promote the employee engagement, collaborative decision-making and encourage employees to take responsibility for their work.

The top management at MBL consists of a diverse leadership team and is responsible for setting the long-term strategic goals and designing what actions are required to reach them. However, instead of micromanaging, the leadership actually allows employees to take initiative to execute these plans. The empowerment helps employees to be innovative and creative, to do what best suits the conditions, whilst expecting corresponding results. Each employee has the freedom to work toward his goals but the leadership team regularly collects feedback form employees and suggests corrective actions when needed.

In addition, at MBL teams are often key decision makers, which makes sure that no voice gets left unheard. MBL creates such cultures of inclusivity and collective responsibility by giving the employees to actively participate in shaping decisions. It has been found in research that participative leadership contributes to higher job satisfaction, which is critical to success in competitive industries over the long haul (Bass & Avolio, 1995).

2.3.3 Human Resource Planning Process

MBL uses a systemized Human Resource Planning (HRP) that helps to match its organizational manpower with the corporation's objectives and mission in order to avoid challenges in the constantly evolving consumer goods market.

2.3.3.1 Recruitment and Selection Process

MBL has its human resource planning strategy completely aligned with its long-term objectives. Advanced tools like AI driven platforms are used for recruitment and selection process to increase efficiency about experience of candidates. MBL diversifies their recruitment process in order to gather talents from internal and external sources to build a variety of creative minded workplaces.

2.3.3.1.1 Digital Transformation in HR

In its journey towards becoming a 'Digital Consumer Company,' MBL has incorporated digital resources in their HRM practice. Using platforms, posting job vacancies on LinkedIn, BDJobs and Workplace by Facebook has increased the density of interconnection with employees. Furthermore, the application of ChatBots has enabled real-time interaction to occur hence improving on the general performance.

2.3.3.1.2 Talent Acquisition and Development

MBL insist on recruiting and developing young talents who are fit for the modern market. It is important for the individual to receive professional growth, skill acquisition and cross-border for the improvement of the company's global standing. It prepares the employees for the operating environments of both local and the global business markets (Marico Bangladesh: Pioneering Global Talent Development for Tomorrow's Leaders, 2024).

IGNITE Campus Ambassador Program: Every year MBL organizes this program to gather 30 young enthusiasts from 30 different most prestigious universities as Campus Ambassador. These Ambassadors will be able to receive a set of educational, corporate mentoring and career coaching by representatives of industry professionals. These young students thus have the opportunity to be selected in Marico Bangladesh Limited for their Impact 90 Internship Program.

Figure 7 Ignite Batch of 2024 of Marico Bangladesh Limited

Impact 90: Impact 90 internship program is one of the most popular internship programs in Bangladesh, which offers internship. The participants go through a post-internship assessment at the end of the internship period, in which participants as a result can apply for permanent jobs in the company. The reason MBL's internship program equips young professionals with cross-functional exposure, so that they can contribute effectively to organizational growth.

Figure 8 Spring 2024 Batch of Impact 90

Over The Wall: A popular competition organized by Marico Bangladesh every year which is "Over the Wall" that enables a path for young students to step into the corporate world with an international internship to India. These radical ways of sourcing talent allow Marico to encourage and keep a formidable, skillful workforce, essential for keeping its competitive advantages in the FMCG space.

Figure 9 "Over The Wall - Season 2", launched in August 2023

2.3.3.2 Employee Engagement

MBL gives a lot of priority to employees in which it believes that employees are core competencies of the company. MBL's culture that encourages employees empower, include and innovate is abbreviated by its talent value proposition namely Go Beyond, Grow Beyond and Be the Impact. Thus, the company has been able to secure an average employee engagement rate of 86% in 2024, which is higher than the global average (Annual Report 2024, 2024). MBL also creates social Links through programs like 'Cha er Shathe Adda', a way to moderate the working interaction through informal related programs and activities, and annual events like 'Value Week'.

2.3.3.3 Training and Development Programs

Training and development policy of MBL for the fiscal year 2023-24 focuses on technical as well as behavioral competency in order to build them up to tackle upcoming problems. The key programs include:

- **Creating a Future-Ready Workforce:** MBL's employees are often trained for Power BI, Power Automate, and Python, due to the consideration of such market trends and technology.
- **In-House Training:** At MBL, employees are encouraged to deliver training on other soft skills such as communication, time management and prioritization skills. They are prepared by Marico members and use real life cases to improve relevance and effectiveness of these sessions.
- **M-WAY of Leading:** A standout initiative within MBL's training offerings is the M-WAY of Leading: Relationship Management Program. This program is in a way that fosters leadership development that can enrich the person and enhance organizational conditions at the same time.

2.3.3.4 Compensation System

At Marico Bangladesh Limited, the employee compensation strategy is well established in order to attract and maintain the best talent. The company offers remunerative packages that are anchored within international benchmarks within Bangladesh due to the company's understanding that performance attracts corresponding remunerations. Some of their types of remunerations are listed below:

- Fixed Salary;
- Provident Fund;

- One Festival Bonus in a year to permanent employees;
- Incentive programs for achieving specific targets;
- Health Insurances;
- Annual health check-ups;
- Annual Leave;
- Work from home options if applicable;
- Employee wellness programs;
- Employee discounts on MBL's products (Winter Sales);
- Provident Fund and Gratuity schemes.

2.3.3.5 Appraisal System

In my opinion, MBL follows performance appraisal system. Targets are established at the beginning of the appraisal period, based on the organizational objectives. The feedback that is gotten during reviews enables determination of achievement in the set goals and potential as well as the weaknesses demonstrated in the organization. Subordinate get constant feedback from their managers and receive performance appraisals on frequent basis so that they can aspire to change and develop. In a way compensation, training, and appraisal systems complement each other to help MBL to attract, develop and motivate the human capital needed in the competitive environment.

2.3.4 Analysis of Overall Management Practices of MBL

From my perspective, MBL has good and efficient management strategies in managing employee relations and organizational behavior. This leadership encourages employee involvement and ensures accountability, hence creating a platform through which employees can contribute positively towards the achievement of organizational objectives.

Also, I think giving the young students opportunities to build a career in MBL by providing 3 different programs, particularly for the freshers, is one of the most impactful ways to gather talents. Because, in this Bangladeshi job market, most companies give the opportunity to experienced talents rather than young creative minds. Whereas MBL offers many opportunities to the young freshers to build their future leaders.

MBL has a good record of training, which is leadership and technical oriented. Even the compensation offered by MBL is quite competitive. However, for the appraisal system, I would recommend MBL have a potential appraisal system along with a performance appraisal system. As this system will enable one to recognize the best workers while at the same time make sure that the workers recognize their employment trajectories. It will also link the appraisal to career development plans and give employees a chance to discuss their future expectations with MBL. Thus, it will ensure that the workforce is always on its toes and contributes to the success of the firm within the highly competitive operating environment.

In short, MBL performs exceedingly well with regard to innovation management, employee satisfaction and organizational strategic objectives and places it in a great position in the FMCG industry of Bangladesh.

2.4 Marketing Practices

The marketing practices at Marico Bangladesh Limited is more customer-oriented and innovative that involves segmentation, competitive pricing, distribution and effective promotional campaign to fulfil the growing consumer needs and to remain competitive in the market.

2.4.1 Products and Services of Marico Bangladesh Limited

Value Added Hair Oil (VAHO): MBL contains a broad customer product portfolio, yet concentrates on the Value-Added Hair Oil (VAHO) segment. Last year they announced its new venture of establishment of a new production unit at Mirsarai Economic Zone that will deal specifically in the production of VAHO items. The product portfolio of VAHO shows significant contribution to its total revenue of MBL consolidating its position in Bangladesh FMCG sector (Marico Bangladesh, n.d.).

Branded Coconut Oil (BCNO): Marico Bangladesh Limited offers a portfolio of products mainly in personal care, health and wellbeing category. One of the notable products that MBL offer is the Branded Coconut Oil (BCNO), which is very popular and healthy. Made with superior formulation, BCNO has been able to develop a large market share satisfying the increasing market demand for natural and healthy oils within the region.

Hair Serum: Marico Bangladesh Limited provides a variety of hair care solutions, which includes Livon Hair Serum. This hair serum contains Aloe Vera with Vitamin E to help reduce frizzy hair, detangle the hair and give it silky and shiny look. It also assists in reducing hair splitting and protect the hair from damage, which gives customers the desired improvement in the hair silkiness and elasticity (The Business Standard, 2022).

Hair Color: MBL has been operating a famous hair color called Hair Code. This Herbal based powdered hair color has added advantages such as HIBISCUS, AMLA and HENNA etc. It offers 100% gray coverage and the endurance of color with the extra bonus of conditioning value. From the details above it can be seen that Hair Code targets herbal dyes to be the center of the hair dye market in Bangladesh.

Male Grooming: MBL started its journey at the beginning of 2024 with launching its first male grooming brand Studio X for men with various luxury products in the range (Tabassum, 2020). This is a new generation grooming company targeting the modern generation man, with a first online platform, touching on style.

Skin Care: The skincare division of MBL has recently entered into a new product category with Parachute SkinPure, a range of face washes. These products are made from natural ingredients such as goat's milk, aloe vera and orange. It has no harmful ingredients like parabens and sulphates. Soon it will establish itself as a complete solution provider in skincare for the Bangladeshi people.

Hygiene: Later on, hygiene products became the part of MBL product range with a recent flagship of vegetable and fruit hygiene. Food cleaning has become a crucial requirement in the recent past especially after the COVID-19 pandemic. This innovation fulfills these needs by providing a safe and efficient way to clean food produce (The Financial Express, 2024).

Baby Care: "Just for Baby" brand includes Baby Products like Baby Oil, Baby Lotion, and many more gentle products containing natural elements such as olive oil and almond milk to help baby skin to remain silky soft, smooth and safe to use daily. The Just for Baby range is made safely to guarantee the best in infant products ("Marico Bangladesh Launches Its Newest Brand "Parachute Just For Baby" An International Range of Baby Care – Products," 2019).

Edible Oil & foods: MBL started doing business in edible oil and food sectors and offers a broad portfolio. Saffola is one of the most famous brands of the company; hereby they promote healthy edible oils. The possible product ensures that consumers get the balanced nutrients they need for daily cooking ("Marico Begins Production at Mirsarai Unit," 2023).

Hair Cleansing: MBL provides hair cleansing products namely Parachute Naturale Shampoo and Parachute Naturale Conditioner etc. These products are made from natural ingredients which include aloe vera, they are all healthy for the skin and act as a gentle cleanser. Maximizes nourishment through the hair shafts while also minimizing hair loss and ensuring a healthy scalp, Parachute Naturale products are available for those looking for natural hair solutions.

2.4.2 Marketing strategies

MBL uses an extensive marketing strategy based on premium products along with competitive pricing and strong distribution networks and market-driven promotions. Through its focus on understanding community together with its health-minded programs, MBL achieves market-wide coverage and gains committed customers and expanding business potential.

2.4.2.1 Product Strategy

MBL offer their superior personal care branded products (Parachute, Saffola, Nihar, Studio X) to the local market to meet the local consumers' expectations. These products are convenient, healthy and made with natural ingredients which is what a local customer would expect from a brand. For instance, parachute coconut oil state that it is natural and trustworthy; Saffola is targeted as the cooking oil that is healthy for the heart due to the growing health awareness among the people of Bangladesh.

2.4.2.2 Pricing strategy

MBL's products are priced in an extremely competitive way. The company's products are fairly sold in the Bangladesh at a price that can easily be within the reach of the middle-income earners while offering quality products.

Figure 10 Price Comparison with Parachute Coconut Oil

For instance, 200ml Maya True Herbs Coconut Oil are priced at 200TK whereas 200ml Parachute Coconut Oil are at 190TK. They also present first level products, especially the Saffola brand that has 'premium' variants at a slightly higher price range and aimed for the health-conscious families. Because the FMCG industry is heavily competitive, MBL sets price levels that are consistent with local consumers' preferences, their income level and competitors.

2.4.2.3 Distribution Strategy

Since MBL is a multinational organization, it has a wide distribution service that cut across both the urban and rural places. The company has targeted different retail outlets so that consumers can easily access the company's products.

2.4.2.4 Promotion Strategy

MBL advertises its products through TV, digital media and outdoor advertising which is one of its key focus areas. Celebrities and influencers are used often to popularize products of MBL and increase their awareness through TikTok, Facebook, and Instagram etc. Also, brand billboards and social media marketing for Saffola is done through the hashtag #ProtectHerHeart. All these marketing strategies primarily have the touch the emotions of their targeted consumer base along with establishing their product quality.

2.4.3 Target customers, targeting and positioning strategy

2.4.3.1 Market segmentation strategies

Market segmentation used by Marico Bangladesh Limited classifies the large and heterogeneous market into smaller and homogenous segments by different factors. Here's a breakdown of the market segmentation approach used by MBL:

- **Demographic Segmentation:** MBL aims at various ages and classes of people in societies. For example, Studio X is targeted at young adults in the age group of 18-30 while Parachute and Saffola are targeted at middle-aged adults in the age of 30-45 years, and families with a conscious POV towards healthy living. Thus, parachute is under the affordable segment, and Saffola is from the premium segment.
- **Geographic Segmentation:** MBL targets both the rural and urban customers although they are dominant in the urban markets. Being more conscious of their health needs, urban clients are more attracted to superior brands such as Saffola, while rural consumers are attracted to Parachute. Therefore, MBL has a dedicated distribution channel that focuses on rural consumer market.
- **Psychographic Segmentation:** MBL also targets consumers by lifestyle and values. Some of their products are packaged in a way that grabs the consumers eyes based on their lifestyle and values. Saffola targets the health conscious, and Studio X targets the young fashionable youth.
- **Behavioral Segmentation:** MBL also segment their market based on what benefits consumers seek. For instance, Saffola is aimed at the consumers who desire heart healthy foods, whereas, Parachute is aimed at people who care for their hair and skin.

2.4.3.2 Target Group of MBL

MBL targets consumer from different areas of the community or society as a whole. The company targets middle to upper middle-class households particularly in the urban and semi urban who are health conscious and prefer products that are better than standard like Saffola for heart healthy oils. It also targets the youth through fashion influenced grooming brands inclusive of Studio X and Hair & Care. Furthermore, the company targets the rural segment through low priced and quality products such as Parachute, which is accessible to reach both the urban and the rural population of Bangladesh.

2.4.3.3 Positioning strategy of MBL

Marico Bangladesh Limited has successfully followed the guidelines of the positioning strategy that will help the company to place its products in the market as quality products of high reliability.

Figure 11 Perceptual Mapping of MBL's Products

The specific aspect of the company's positioning strategy is to offer goods of superior quality at reasonable prices to meet the requirements of the target audiences, who are mainly involved in the personal care. Thus, owing to the concentration to aspects like product performance, dependability, and health impact, MBL has established itself as a value provisioning company. A brand must make sure that the marketing being done is appealing to the changing needs of the consumers in Bangladesh. These brands have values of innovation, corporate social responsibility and emotional appeal. Thus, the given strategic approach allows MBL to have great brand loyalty and retain competitive advantage in the volatile market.

2.4.4 Marketing Channels

Marico Bangladesh Limited uses both the channels of marketing for sales and promotion of its products. All the channels I have gathered are given below:

2.4.4.1 Wholesalers and Retailers

Through an indirect selling mechanism; MBL sell their products through other marketers such as wholesalers and retailers. For example, Daraz is an online wholesaling platform and MBL has its dedicated page on Daraz website for sales.

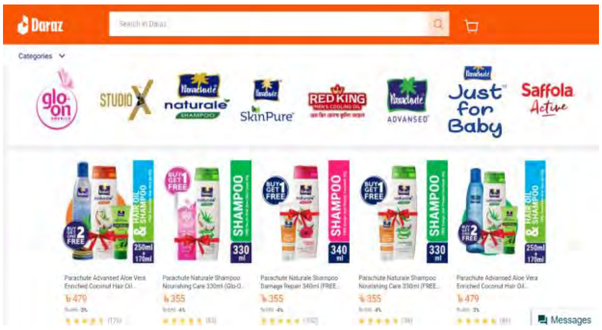


Figure 12 Daraz Website, Marketing Channel of MBL

MBL has significantly tapped on digital technology to expand the market outlets for its products. Organic products availability has improved and this has been due to the enhanced position that the company has taken on the social markets such as Daraz. To a certain extent, it lets the company to extend its operation in a greater market throughout various locations in Bangladesh.

2.4.4.2 Modern Trade Channels

The products of MBL are also sold in supermarkets and local. For instance, Shawpno, well-known supermarket has its dedicated webpage for MBL's product.

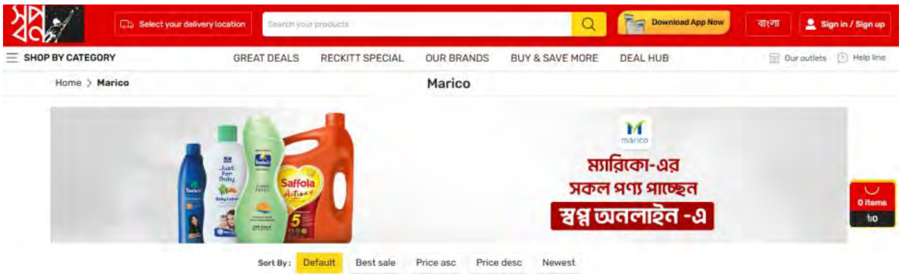


Figure 13 Shawpno Website, Marketing Channel of MBL

Not only supermarkets but also modern trade retail shops in urban places have also become significant for the company.

2.4.4.3 Digital Presence

Currently, the MBL has risen its marketing budgets, and their notable advertisement has included TV advertisement, LinkedIn, Facebook, Instagram, magazine advertisements, MBL's website, and social media campaigns. However, MBL's experience from the previous case showcased how it was useful to move towards the digital domain due to bringing in target consumer demographic.

Figure 14 LinkedIn and MBL's Own Website

MBL also employs brand communications techniques using digital marketing strategies like ‘G for Glo On’ which have been rewarded. By utilizing these plans, MBL is in a position to successfully communicate with the consumers and also to achieve more consumer base not only in the domestic front but also in the global front.

2.4.5 Product Development and Competitive Practices

The product development process of MBL depends on several factors, which include market research and consumers’ analysis. Prominent attention is paid to the identification of specific needs, behaviors and patterns in the Bangladeshi markets. For instance, they focus on natural and herbal products, given the cultural belief on nature remedies in Bangladesh. Thus, seeing opportunities in the gaps in the current range of products, MBL defines its further development with reference to new customer requirements.

New developments at MBL show more attention to the needs of the consumers in recent years.

- The herbal hair care segment has been upgraded by the company’s integration of products such as aloe vera and amla increasing natural and eco-friendly products.
- Also, the company has launched nutrient enriched edible oil and health care supplement under Saffola brand as evolving Bangladeshi market is health conscious.
- Parachute’s SkinPure range includes body lotions and carrier oils for the tropical climate of the region it operates in.

Moreover, from my perspective their competitive practices are their extensive distribution chain, market research and continuous effort to sustainable practices. MBL has over 1.4 million distribution chains. In addition, they do deep dive market research for finding out the needs or the customer, their satisfaction and what the MBL lacks. Last but not least, as mentioned before there are up to date with their contribution towards sustainable practices. Therefore, I believe these three points are MBL’s competitive practices.

2.4.6 Advertising, Promotion and Branding Strategies

MBL focuses on their branding, promoting and advertising because they care for their consumers and value in creating brand loyalty and consumer engagement. Here are some of their advertising, promotion and branding strategies given below.

2.4.6.1 Advertising Strategies

MBL attaches much importance to the contextually appropriate and culturally sensitive advertising communication. For instance, “Strong Roots Make You Beautiful” campaign from the Parachute Advansed provides fresh orientation to traditional oiling practices and links them to pride and being empowered in the present world cultures.

Figure 15 Parachute Advansed – Strong Roots Make You Beautiful Campaign

The campaigns are usually associated with emotionally charged events such as; Mother’s Day, Friendship Day, Women’s Day among others. These ads do not only speak of the utilitarian uses of hair oil but they also cultivate pride and nostalgia; thus, building a good brand image.

MBL also relies on the appeal to the celebrity and the storytelling while developing advertisements. For instance, Parachute Advansed Aloe Vera Hair Oil brand was recently reintroduced and promoted it through celebrities that related the product to elegance and romantic affairs.

Figure 16 Parachute Advansed Mother's Day Campaign

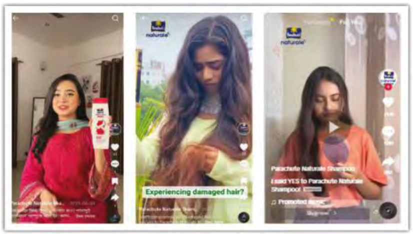
In the same way there were calls for participation from the consumers during events such as the "Fly with Maa" campaign that ran during the Mothers' Day this enabled audience to share their experiences while at the same time branding them.

2.4.6.2 Promotional Strategies

The main goal of promoting MBL products are encouraging consumption as well as increasing the product's presence within the stores. Discount promotions, bundling, and goodwill arrangements with consumers such as coupons exclusive to certain stores are other ways the company helps retailers design fabulous in store promotions.

Figure 17 Trade Marketing Initiative of MBL

These are backed with things such as posters, stickers and shelf tags which convey the brand's message to whoever is concerned.



Also, in today's world where most of the audiences depend on the internet, the digital campaign, especially during the events such as Parachute Naturale Shampoo's campaign on TikTok has helped the brand to reach out to younger audiences.

Figure 18 1st Ever Shampoo Brand to go Live on TikTok Ads

Figure 19 AR Filter Gamification

AR Filter Gamification: In 2024 Parachute Naturale Shampoo's campaign has generated the first Augmented Reality (AR) Gamification campaign which was live on TikTok, Facebook and Instagram with #SayYesToNaturaleChallenge.

As such, it indicates a change of promotion tactics for the brand from traditional advertising to the targeting of social media and celebrity endorsement, which keeps it relevant in a current mainly digital society.

2.4.6.3 Branding Strategies

MBL uses brand images that depict trust, care, and authenticity as its brands' appeal to its consumers. Every product within the category of Parachute Advansed must meet or satisfy a distinct consumer's need while highlighting certain features.

For instance, the Beliphool Coconut Hair Oil underlines its nourishing activity through pointing at the list of components including coconut oil and methi which directly link to traditional practices in beautifying hair.

Figure 20 Parachute Advansed Beliphool New Thematic Launch

Likewise, the Extra Care Anti Hair Fall Oil makes use of a formal applicator design to highlight the science behind hair health solution. This is something that MBL did and this creativity is yet to explore the market.

Figure 21 Parachute Advansed Extra Care: New Pack Launch

The storytelling strategy speaks a lot to the brand as it has the capability to tell unique stories to its target market. Such imitative as "let's make our products friends" and giving a friend-like character to products along with placing them in exotic travel-related set up also became reflective of the brand's creativeness and capture the fancy of modern consumers.

Storytelling and an emphasis on such values as friendship or familiar relations make the brand's emotional appeal in the market stronger alongside the existing product values.

Figure 22 Parachute Advansed Friendship Day Campaign

2.4.7 Critical Marketing issues and gaps

Marico Bangladesh Limited (MBL) is a leading FMCG company in Bangladesh, but it faces several marketing challenges that need strategic attention:

- **Market Competition:** Intense competition from both the global and regional players puts pressure on MBL to come up with new products and relevant differentiated products.

- **Evolving Consumer Preferences:** Increasing client preference for natural and sustainable products means that MBL should expand their environmentally friendly policies and apply them across the board to all its products.
- **Economic Challenges:** These threats make the following a crucial consideration for MBL: Inflation and economic fluctuation decrease consumers buying power, hence; the company needs to strike a balance between optimizing costs and establishing a quality image for its products.

2.4.8 Analysis of Overall Marketing Practices of MBL

In my opinion, MBL has implemented very good marketing strategies which can satisfy consumer demands properly. Their attention to great products like VAHO (Value-Added Hair Oil), and Saffola for health-conscious customers proves this competency well. I believe their strongest feature is their product variations or diversifications of products, the company offers what low end products for the middle- and lower-income earners, known as Parachute while the high-end products are for the high-income earners; this is Saffola.

However, from my perspective MBL is a mature company so diversification of products will not be a long-lasting feature to compete in this evolving industry of Bangladesh. Therefore, to prolong their existence they to launch new products that not only focuses on the hair and body care sector but also a new sector or new consumer bracket. While MBL comes under the pharmaceutical section this company mainly deals with products in the line of hair care and body care. I propose they expand their products lines by grabbing a new consumer bracket, for instance, they should consider producing sanitary pads, toilet paper etc. This would enable them to meet an important need among consumers and extend their product portfolio in the process.

2.5 Financial Performance and Accounting Practices

In the following parts, I have calculated the vertical and ratio analysis of MBL and evaluated their financial performances based on my own analysis. All the analysis are done based on 5 years data from 2019 to 2023. Moreover, in the later part the accounting practices that MBL follows are briefly discussed based on their annual report.

2.5.1 Financial Performance

I have taken the data from 2019 to 2023 for the analysis of financial performance of MBL specifically using vertical and ratio analysis. And evaluated the 5 years financial performance based on that.

2.5.1.1 Vertical Analysis of MBL

I have calculated the aggregate amount of total asset for the statement of financial position of MBL for the year 2019 to 2023. The percentage of total asset for each asset, equity and liability is been calculate.

Note	31 March 2019 (BDT)	%	31 March 2020 (BDT)	%	31 March 2021 (BDT)	%	31 March 2022 (BDT)	%	31 March 2023 (BDT)	%
MARICO BANGLADESH Statement of Financial Position										
Property, plant and equipment	468,716,557.00	10.24%	646,996,533.00	12.92%	771,868,265.00	13.32%	981,096,486.00	13.92%	1,304,594,243.00	11.21%
Intangible assets	3,647,084.00	0.08%	1,629,290.00	0.03%	226,084.00	0.00%	51,883.00	0.00%	553,054.00	0.00%
Right-of-use asset	-	0.00%	175,398,286.00	3.50%	164,593,633.00	2.84%	292,715,995.00	4.15%	266,911,631.00	2.29%
Deferred tax assets	47,513,604.00	1.04%	47,345,641.00	0.95%	19,167,902.00	0.33%	13,850,105.00	0.20%	12,486,990.00	0.11%
Advances, deposits and prepayments	51,127,555.00	1.12%	22,687,928.00	0.45%	133,405,058.00	2.30%	73,743,809.00	1.05%	65,871,163.00	0.57%
Investment property	-	0.00%	-	0.00%	-	0.00%	12,825,500.00	0.18%	8,103,932.00	0.07%
Other financial assets	4,921,872.00	0.11%	449,448.00	0.01%	304,664,442.00	5.26%	726,235.00	0.01%	7,086,385.00	0.06%
Non-current assets	**575,926,672.00**	12.58%	**894,507,126.00**	17.86%	**1,393,925,384.00**	24.06%	**1,375,010,013.00**	19.51%	**1,665,607,398.00**	14.31%
Inventories	1,091,494,753.00	23.85%	1,632,102,325.00	32.59%	1,980,451,778.00	34.18%	2,332,427,872.00	33.10%	2,528,550,222.00	21.73%
Advances, deposits and prepayments (current)	435,633,515.00	9.52%	601,458,728.00	12.01%	412,773,542.00	7.12%	748,075,043.00	10.61%	1,028,621,890.00	8.84%
Other financial assets (current)	2,090,191,792.00	45.67%	1,423,654,628.00	28.43%	1,574,484,466.00	27.17%	2,086,909,585.00	29.61%	4,184,389,716.00	35.96%
Cash and cash equivalents	383,101,877.00	8.37%	420,407,014.00	8.39%	396,404,261.00	6.84%	505,194,161.00	7.17%	2,228,805,865.00	19.15%
Assets held for sale	-	0.00%	35,865,465.00	0.72%	35,865,465.00	0.62%	-	0.00%	-	0.00%
Current assets	**4,000,421,937.00**	87.42%	**4,113,488,160.00**	82.14%	**4,399,979,512.00**	75.94%	**5,672,606,661.00**	80.49%	**9,970,367,693.00**	85.69%
Total assets	**4,576,348,609.00**	100.00%	**5,007,995,286.00**	100.00%	**5,793,904,896.00**	100.00%	**7,047,616,674.00**	100.00%	**11,635,975,091.00**	100.00%
Share capital	315,000,000.00	6.88%	315,000,000.00	6.29%	315,000,000.00	5.44%	315,000,000.00	4.47%	315,000,000.00	2.71%
Share premium	252,000,000.00	5.51%	252,000,000.00	5.03%	252,000,000.00	4.35%	252,000,000.00	3.58%	252,000,000.00	2.17%
Retained earnings	735,135,754.00	16.06%	820,680,232.00	16.39%	1,069,572,396.00	18.46%	2,122,057,310.00	30.11%	3,019,315,643.00	25.95%
Total equity	**1,302,135,754.00**	28.45%	**1,387,680,232.00**	27.71%	**1,636,572,396.00**	28.25%	**2,689,057,310.00**	38.16%	**3,586,315,643.00**	30.82%
Employee benefit obligation (non-current)	64,907,949.00	1.42%	85,861,639.00	1.71%	32,262,856.00	0.56%	43,669,953.00	0.62%	26,683,320.00	0.23%
Lease liabilities (non-current)	-	0.00%	167,728,340.00	3.35%	122,256,724.00	2.11%	78,641,492.00	1.12%	46,397,509.00	0.40%
Non-current liabilities	**64,907,949.00**	1.42%	**253,589,979.00**	5.06%	**154,519,580.00**	2.67%	**122,311,445.00**	1.74%	**73,080,829.00**	0.63%
Loans and borrowings	200,000,000.00	4.37%		0.00%	250,000,000.00	4.31%	-	0.00%	-	0.00%
Employee benefit obligation (current)	9,665,787.00	0.21%	6,516,576.00	0.13%	21,018,917.00	0.36%	24,414,204.00	0.35%	25,893,750.00	0.22%
Trade and other payables	2,539,270,784.00	55.49%	2,711,929,259.00	54.15%	3,082,900,365.00	53.21%	3,548,037,256.00	50.34%	7,106,383,606.00	61.07%
Unclaimed dividend	-	0.00%	-	0.00%	-	0.00%	-	0.00%	8,402,017.00	0.07%
Lease liabilities (current)	-	0.00%	42,836,393.00	0.86%	44,634,210.00	0.77%	49,476,669.00	0.70%	57,310,504.00	0.49%
Current tax liabilities	460,368,335.00	10.06%	605,442,847.00	12.09%	604,259,428.00	10.43%	614,319,789.00	8.72%	778,588,742.00	6.69%
Current liabilities	**3,209,304,906.00**	70.13%	**3,366,725,075.00**	67.23%	**4,002,812,920.00**	69.09%	**4,236,247,918.00**	60.11%	**7,976,578,619.00**	68.55%
Total liabilities	**3,274,212,855.00**	71.55%	**3,620,315,054.00**	72.29%	**4,157,332,500.00**	71.75%	**4,358,559,363.00**	61.84%	**8,049,659,448.00**	69.18%
Total equity and liabilities	**4,576,348,609.00**	**100.00%**	**5,007,995,286.00**	**100.00%**	**5,793,904,896.00**	**100.00%**	**7,047,616,673.00**	**100.00%**	**11,635,975,091.00**	**100.00%**

Figure 23 Vertical Analysis of MBL's Statement of Financial Position

Secondly, I have also calculated the aggregate amount of total revenue for profit and loss statement of MBL for the year 2019 to 2023. The percentage of total revenue for all the revenues and expenses is been calculate.

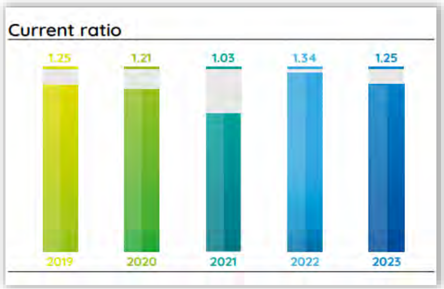
Notes	31 March 2019 (BDT)	% of Revenue	31 March 2020 (BDT)	% of Revenue	31 March 2021 (BDT)	% of Revenue	31 March 2022 (BDT)	% of Revenue	31 March 2023 (BDT)	% of Revenue
MARICO BANGLADESH STATEMENT OF PROFIT OR LOSS										
Revenue	8,768,160,138.00	100.00%	9,795,911,357.00	100.00%	11,306,519,256.00	100.00%	13,032,188,243.00	100.00%	14,135,741,140.00	100.00%
Cost of sales	(4,472,697,423.00)	-51.01%	(4,124,374,537.00)	-42.10%	(4,652,260,050.00)	-41.15%	(5,960,795,907.00)	-45.74%	(6,811,203,460.00)	-48.18%
Gross profit	**4,295,462,715.00**	48.99%	**5,671,536,820.00**	57.90%	**6,654,259,206.00**	58.85%	**7,071,392,336.00**	54.26%	**7,324,537,680.00**	51.82%
Other income	1,749,599.00	0.02%	924,181.00	0.01%	63,392,805.00	0.56%	17,087,007.00	0.13%	27,424,065.00	0.19%
General and administrative expenses	(931,650,175.00)	-10.63%	(1,143,789,781.00)	-11.68%	(1,073,905,421.00)	-9.50%	(1,190,388,541.00)	-9.13%	(1,221,802,840.00)	-8.64%
Marketing, selling and distribution expenses	(773,733,918.00)	-8.82%	(1,147,745,067.00)	-11.72%	(1,358,266,457.00)	-12.01%	(1,253,654,958.00)	-9.62%	(989,417,810.00)	-7.00%
Other expense	(281,155.00)	0.00%	(2,087,838.00)	-0.02%	(788,185.00)	-0.01%	(92,020.00)	0.00%	(2,861,570.00)	-0.02%
Operating profit	**2,591,547,066.00**	29.56%	**3,378,838,315.00**	34.49%	**4,284,691,948.00**	37.90%	**4,644,343,824.00**	35.64%	**5,137,879,525.00**	36.35%
Finance income	181,672,610.00	2.07%	239,693,041.00	2.45%	149,398,274.00	1.32%	126,636,587.00	0.97%	162,981,942.00	1.15%
Finance costs	(23,475,331.00)	-0.27%	(46,447,617.00)	-0.47%	(18,912,816.00)	-0.17%	(37,014,899.00)	-0.28%	(4,355,821.00)	-0.03%
Net finance income	158,197,279.00	1.80%	193,245,424.00	1.97%	130,485,458.00	1.15%	89,621,688.00	0.69%	158,626,121.00	1.12%
Profit before contribution to workers participation fund and welfare fund	**2,749,744,345.00**	31.36%	**3,572,083,739.00**	36.47%	**4,415,177,406.00**	39.05%	**4,733,965,512.00**	36.33%	**5,296,505,646.00**	37.47%
Contribution to workers participation fund & welfare fund	-	0.00%	-	0.00%	(220,758,870.00)	-1.95%	(236,698,275.00)	-1.82%	(264,825,282.00)	-1.87%
Profit before tax	**2,749,744,345.00**	31.36%	**3,572,083,739.00**	36.47%	**4,194,418,536.00**	37.10%	**4,497,267,237.00**	34.51%	**5,031,680,364.00**	35.60%
Income tax expenses	(726,352,523.00)	-8.28%	(925,845,292.00)	-9.45%	(1,085,738,503.00)	-9.60%	(943,410,886.00)	-7.24%	(1,159,268,355.00)	-8.20%
Profit for the year	**2,023,391,822.00**	23.08%	**2,646,238,447.00**	27.01%	**3,108,680,033.00**	27.49%	**3,553,856,351.00**	27.27%	**3,872,412,009.00**	27.39%
Other comprehensive income	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Remeasurements of defined benefit liability	(11,721,987.00)	-0.13%	(21,693,272.00)	-0.22%	(13,931,056.00)	-0.12%	18,628,563.00	0.14%	17,346,325.00	0.12%
Related tax	2,879,190.00	0.03%	5,423,318.00	0.06%	(10,856,812.00)	-0.10%	-	0.00%	-	0.00%
Other comprehensive income/(loss) for the year, net of tax	**(8,842,797.00)**	-0.10%	**(16,269,954.00)**	-0.17%	**(24,787,868.00)**	-0.22%	**18,628,563.00**	0.14%	**17,346,325.00**	0.12%
Total comprehensive income for the year	**2,014,549,025.00**	22.98%	**2,629,968,493.00**	26.85%	**3,083,892,165.00**	27.28%	**3,572,484,914.00**	27.41%	**3,889,758,334.00**	27.52%
Basic earnings per share (per value of Tk 10)	**64.23**		**84.01**		**98.69**		**112.82**		**122.93**	

Figure 24 Vertical Analysis of MBL's Profit and Loss Statement

2.5.1.2 Ratio Analysis of MBL

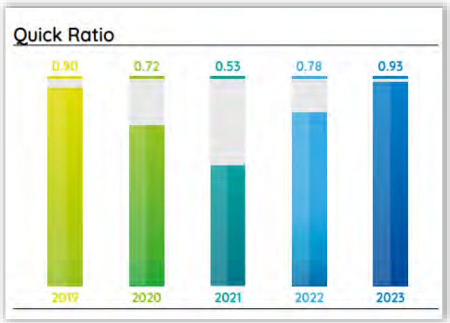
2.5.1.2.1 Liquidity Ratios

Trend: The current ratio was 1.25 (2019), 1.21 (2020), 1.03 (2021), and 1.34 (2022) but it has improved to 1.25 in the fiscal year 2023.



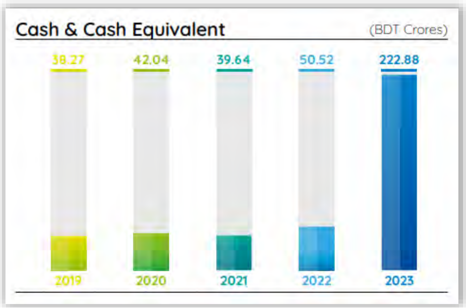
For 2019-2021, the decrease in the current ratio is due to the unsustainable increase in current liabilities that resulted from the increase in trade payable. However, the COVID-19 did not affect MBL harshly since most of its products are necessity item so there was no lack of demand. In 2022–2023, the improvement was due to faster sales and, higher operational cash flows.

Trend: The quick ratio was 0.90 in the year 2019 and it dropped to 0.53 in the year 2021 and in the year 2023 it was fluctuated to 0.93.



The huge decline in quick ratio FY 2020 & 2021 is due to coronavirus, company used to hold more inventory because market demand was low. This much higher non-liquid current assets compared to immediate liabilities mean that the quick ratio is lower. In 2022 and 2023 based on the efficient recovery made on accounts receivable and reduced dependence on inventory, the ratio rose up. MBL also implemented a more efficient structure of operations through the optimization of its supply chain coupled with enhancements on the receivables treatment policies.

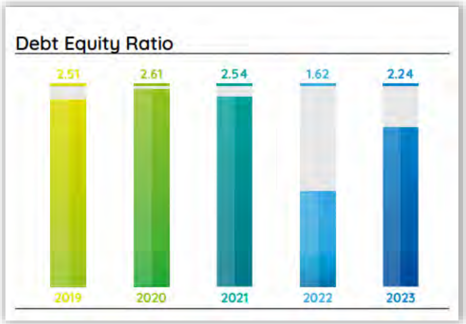
Trend: The total cash reserves also raised from 38.27 crore (2019) to 222.88 crore (2023) where a sharp rise has been observed in the year 2023.



For the period of 2019 to 2022, the growth of the cash reserves was as a result of good control of costs and effective management of the operational cash flows. MBL ensured that it had adequate liquidity levels and it was well protected during the Covid 19 outbreak. In 2023, the increase in excess cash was due to improvements in operating profit, reduced capital outlays, extended vendor credit terms.

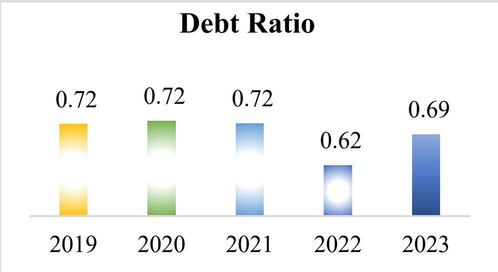
2.5.1.2.2 Solvency Ratios

Trend: The Debt-to-Equity (D/E) ratio rose from 2.51 (2019) to 2.61 (2020), slightly declined to 2.54 (2021), then became drastically lower at 1.62 (2022), and rose slightly at 2.24 (2023).



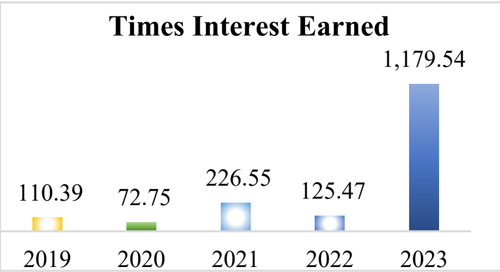
Despite equity and retained earnings increasing, the use of debt was higher in 2019 and 2020. For 2021, the D/E ratio came down to 2.54 due to the reduction of debts and consistent earnings through retaining profit during the pandemic period. By the end of the year 2022, the ratio decreased considerably due to strong cash flow and operating profits enabling higher repayments of debt. Nonetheless, it increased to 2.24 in 2023, proving that appropriate utilization of borrowings for business growth and inventory management is maintainable. To sustain this balance, MBL should use this debt for profitable projects, manage the supplier payments, and increase the equity from the profits to support the growth.

Trend: The Debt Ratio trend as indicated below was a general upward movement from 2019 71.55% to a high of 72.29% in 2020/2021 fiscal year, slightly down to 71.75% in 2022, it sharply declined to 61.84% in 2023.



This implies that the company was heavily in the use of debt from the year 2019, 2020 and 2021. It has risen probably through debt repayment or by accumulating more assets and in 2022, it enhanced greatly. However, in the same year 2023, the debt ratio has increased again which means that the company might have levied new debts or might have low assets.

Trend: The TIE ratio has reduced from 110.39 (2019), 72.75 (2020), to 226.55 (2021). It again came down to 125.47 (2022) but mounted up to 1,179.54 (2023).



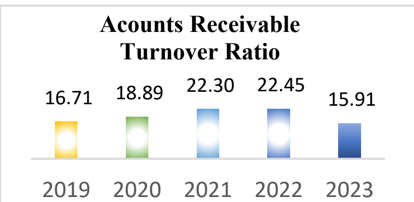
The total overheads to TIE ratio exhibit increased significantly in 2021 and even more so in 2023. This shows that interest coverage for the company significantly enhanced in 2023 and this may be attributed to the increased operating profits or a decrease in the interest cost.

2.5.1.2.3 Efficiency Ratios

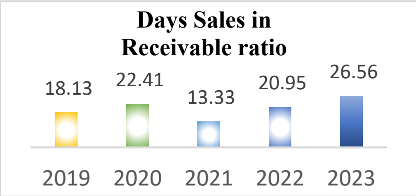
Years	Accounts Receivable Turnover Ratio	Days Sales in Receivable Ratio	Accounts Payable Turnover Ratio	Days Cost of Sales in Payable Ratio	Inventory Turnover Ratio	Days sales of Inventory Ratio
2019	16.71	18.13	1.87	194.69	3.18	114.61
2020	18.89	22.41	1.57	232.36	3.03	120.52
2021	22.30	13.33	1.61	227.32	2.58	141.71
2022	22.45	20.95	1.80	203.02	2.76	132.05
2023	15.91	26.56	1.28	285.48	2.80	130.25

Table 1 Efficiency Ratios of MBL from 2019-2023

Analysis of the Accounts Receivable Turnover and Days Sales in Receivable

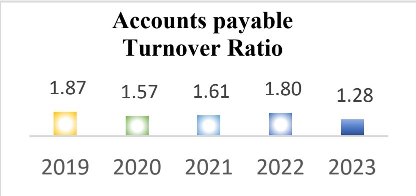


The Accounts Receivable Turnover Ratio which shows the frequency at which a firm collects its receivables also increased from the 2019 figure of 16.71 to a high of 22.45 in 2022. But it reduced sharply to 15.91 in 2023 meaning that it took a longer time to collect the amounts.

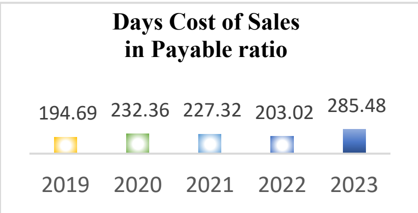


Therefore, the Days Sales in Receivable Ratio changed; it reduced to 13.33 days in 2021 as it showed that the company receives most of the money within the said period, although it increased to 26.56 days in 2023 which imply delays in collection of receivables.

Analysis of the Accounts payable turnover and Days cost of sales in payable

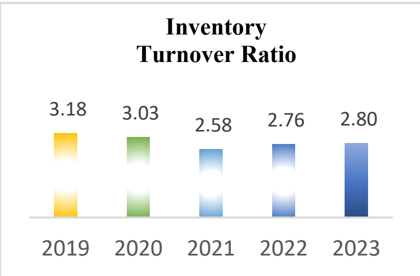


The Accounts Payable Turnover Ratio decreased from 1.87 in 2019 to 1.28 in 2023 meaning that the company is slower in paying for its accounts payable. This is in line with the Days Cost of Sales in Payable Ratio which has risen from 194.69 days in 2019 to a high of 285.48 days in 2023.

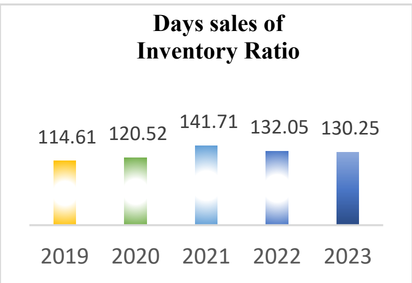


This means the company was delaying payment to suppliers, probably as part of the efficiency in the management of cash flow. So, as the time passed gradually Marico Bangladesh Limited takes more days to pay its invoices from their trade creditors which is less efficient.

Analysis of the Inventory Turnover and the Days of Sales Inventory

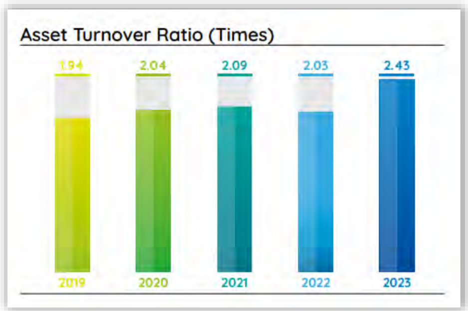


MBL had higher demand for their products during COVID-19 unless another company because their product fall under the necessity items and they also have hygiene products. But after the pandemic there was lack in demand which caused lower ratio in 2021. There has been a reduction of the Inventory Turnover Ratio which was 3.18 in 2019 and reached a low of 2.58 in 2021 though it has slightly increase in 2023 and was 2.80.



This indicates that there was low turnover of inventory made during the earlier year and it was relatively higher in the last few years. The Days Sales of Inventory Ratio rose from 114.61 days in 2019 up to 141.71 days in 2021, which means that the company sells its inventory at a slower rate. Nevertheless, by the year 2023 it has registered 130.25 days which show a moderate efficiency gain in inventory management.

Trend: The Asset Turnover Ratio, also rose from 1.94 in 2019 to 2.43 in 2023, but slightly declined in the 2022 to 2.03 before skyrocketing to 2.43 in the 2023.



2019 to 2021: It extended from 1.94 to 2.09 showing signs of enhanced capacity for returns on assets. This improvement was made possible by MBL's strategy of enhancing its asset base to raise fundamental operational efficiency. In 2020 they expected Capex to rise in the future as the company added to asset base through mobilization to fund property, plant and equipment. But while doing so, it failed to match the rate of increase in its revenues and therefore saw this temporary setback. To 2023, the significant increase to 2.43 illustrates the ability of MBL to achieve vastly improved revenues with correlations to assets. This can be due to enhanced sales volume.

2.5.1.2.4 Profitability Ratios

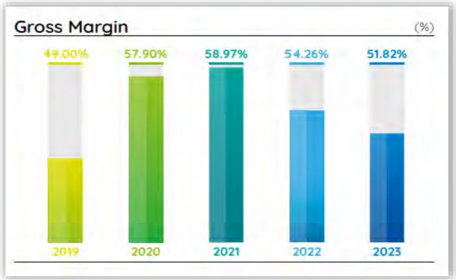
Du-Point Analysis				
Years	**Net Profit Margin (%)**	**Asset Turnover**	**Equity Multiplier**	**ROE (%)**
2019	23.08	1.92	3.51	155.54
2020	27.01	1.96	3.61	191.11
2021	27.49	1.95	3.54	189.76
2022	27.27	1.85	3.47	175.06
2023	27.39	1.8	3.37	166.15

Table 2 Du-Point Analysis

The DuPont Analysis for 2019-2023 reveal as how each profitability, efficiency and financial leverage factors had impacted on the Return on Equity (ROE) of the company.

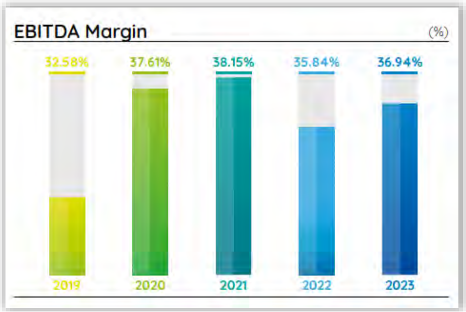
- **Net Profit Margin:** The Net Profit Margin increased gradually from 23.08% in 2019 to 27.39% in 2023which is a direct indication that the company over time has learned how to transfer its income statement sales into actual profits.
- **Asset Turnover:** Peaked in 2020 at 1.96and has begun a slow decline to 1.80 in 2023, illustrating the fact that the firm has become slightly less effective at utilizing its assets to generate sales.
- **Equity multiplier:** This measures how much the company is leveraging on debts has reduced from 3.51 in 2019to 3.37 in 2023.

Combined, the ROE for ROE reached its highest level in 2020 at 191.11% and is expected to drop to 166.15% in 2023majorly caused by lower efficiency and decreased utilization of the leverage ratio. This has ensured that high profitability has been achieved by the company, though better utilization of assets, and proper leverage could lead to even better outcomes in future.



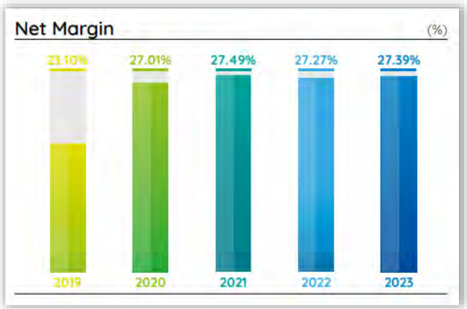
Trend: Gross margin increased from 49.00% (2019) to 58.97% (2021) and was slightly reversed to 51.82% (2023).

During 2019–2021, gross margin was up due to cost containment, lower input prices, and concentration on the higher-margin products. From 2022–2023 the margins reduced due to increased raw material costs, inflation. This also shows that the company has struggled to keep up with the inflation price by enhancing its ability to set high prices in the market.



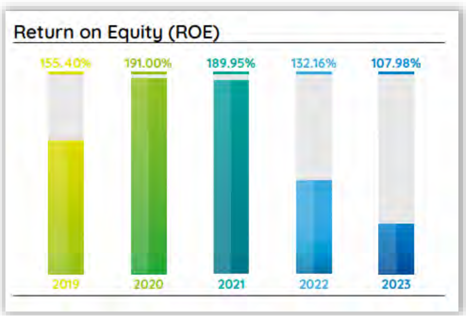
Trend: EBITDA margin increased from 32.58% of sales (2019) to 38.15% of sales (2021) and slightly declined to 36.94 % of sales in 2023.

The improvement up to 2021 is well explained by improved operational efficiency, costs gain efficiencies, and higher revenues. Nevertheless, the decline after 2021 indicates that possible operating cost rises, including marketing, logistics, and administrative expenses related to growth strategies and inflation.



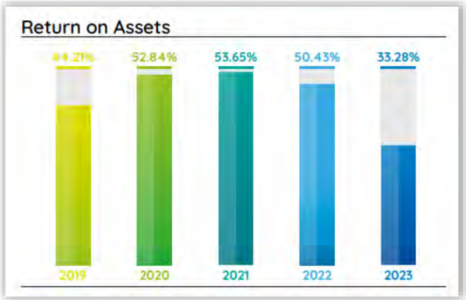
Trend: Net margin improved by 4.39% to reach 27.39% in 2023 from 23.10% in 2019 and 27.49% in 2021.

The enhanced net margin during 2019–2021 is by efficient cost control, low interest expenses resulting from the use of less credit, and increased revenues. In the year 2022–2023, the stability reveals that MBL has efficiently managed its financial and non-operating costs to remain profitable even if operating profit margins were under pressure by increased costs.



Trend: The highest value of ROE was 191.00% achieved in 2020 and the lowest of 107.98% in 2023.

Thus, the high ROE in the years 2020 and 2021 can be explained by implementing high earnings and claimed lower equity, because the business kept smaller portions of profit in its earlier years. The decline after 2021 is due to equity resulting from the accumulated retained earnings that reduced the return ratio.

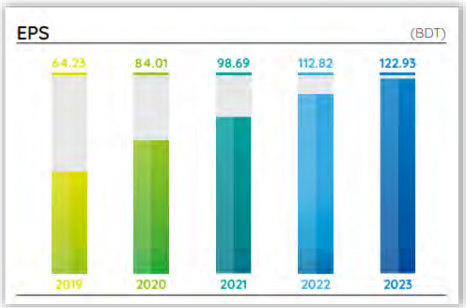


Trend: ROA has risen from 44.21% in 2019 to 53.65% in 2021 and was 33.28% in 2023.

The reduction in ROA after 2021 shows appreciable asset increase as MBL embarked on increasing its operating base and efficiencies. Here, the company increased its net income during the same period but failed to repeat the kind of return on the bigger asset base. This implies that there is a need to increase asset productivity.

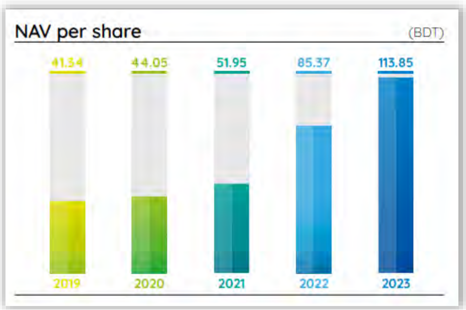
2.5.1.2.5 Market Value Ratios

Trend: EPS improved in each year from 2019 to 2023 from BDT 64.23 to BDT 76.14 in 2021 and rising up to BDT 122.93 in 2023.



In 2019–2020, earnings per share increased from BDT 64.23 to 84.01 through increase in gross margin profitability and proper cost control. From the given period analysis, the net profit has substantially risen through consistent revenue growth and decreasing expenses of financial nature. From 2021 EPS started rising, due to continuous profitability and increase in total revenue.

Trend: NAV per share increased from BDT 41.34 (2019) to BDT 113.85 (2023) with long substantial heights in 2021 and 2022.



From 2019–2020 NAV per share improved slightly from BDT 41.34 to 44.05 due to steady accumulation of retained earnings in the company. The increase in equity was moderate during the year, as MBL probably paid out most of its profits as dividends during the period. In 2021 NAV increased to BDT 51.95 because of high retained earnings, which were driven by high profits and low debt levels that increased equity. By the year 2023, NAV reached BDT 113.85 because of the company's sustainability strategy of reinvesting profits rather than paying high-dividends to shareholders.

2.5.2 Accounting Performance

A. Qasem & Co. as the auditor of Marico Bangladesh Limited is to audit the company's existence, the management's internal control system, conformity to the accounting standards and compliance to the relevant laws. They also offer suggestions for process enhancement and report such conclusions to various stakeholders.

2.5.2.1 Core Accounting Principles

Currently, Marico Bangladesh apply accounting standards that are internationally accepted such as **International Financial Reporting Standards (IFRS)** and **Generally Accepted Accounting Principles (GAAP)**. These frameworks serve as guidelines helping to maintain and provide the necessary comparability and transparency of its financial statements, important for the investor and specific for its business legislation. This is also apparent in accordance with these principles and the firm's aim to deal with a solid financial structure that complies with international standards.

They presented their financial statements with a relatively low amount of bias, which indicates that its figures are real and reliable as it gives a legal picture of the company's financial health.

2.5.2.2 Method of Accounting

The company uses the accrual basis of accounting; this is the most preferred and recommended for use accounting method. This method accepts incomes in the periods when they are earned and expenses in the periods that they are incurred irrespective of cash receipts and payments.

- **Revenue Recognition:** Revenues are reported at the point of sale in the specific financial year in which the particular goods or services were sold and ownership of the product passed on to the buyer despite delayed receipt of the cash.
- **Expense Recognition:** Cost of sales, employee compensation and other overheads are accounted for when they are incurred regardless of when the money is paid.

This method makes a connection between the accounting reports of Marico Bangladesh and organizational operation and offers the most accurate and clear picture of the company's performance during a specific period.

2.5.2.3 Accounting Cycle

Marico Bangladesh also has a correct and complete accounting cycle since it has submitted all the necessary financial reports annually. The process includes the following steps:

- **Transaction Identification and Journalizing:** Ensuring that all the flow of financial resources is recorded in the books of accounts in the most appropriate manner.
- **Trial Balance Preparation:** Balancing of debits and credits.
- **Adjustment Entries:** Accruals and prepayments are another activity that is often included in the sources of activity, and missed in the uses of activity.
- **Financial Statement Preparation:** Preparation of aggregates of financial statements, balance sheets, income statements and cash flow statements.
- **Closing Entries:** Closing accounts, which are temporarily used for a specific period of the fiscal year, and opening them for the next fiscal year.

2.5.2.4 Depreciation Methods

Marico Bangladesh follows the straight-line method of writing off property plant & equipment. This method helps to spread the cost of an asset in proportion to its usefulness over the number of years it is expected to be in use. The use of straight-line depreciation method adopted in the company was based on the continuous reduction of the economic benefits of the assets.

2.5.2.5 Accounting Disclosures

The financial statements of the company contain clear and complete information disclosure. These include:

- This section gives details on the accounting policies that were used in preparing the financial statements.
- Annual consolidated income statement, statement of consolidated net income, statement of segment income and a statement of consolidated cash flow.
- Any identified risks that have not been quantified with a specific financial implication are to be reported.
- Information related to the interaction with related parties.
- Changes made of the accounting approach and their effect in the organizational financial reports.

These disclosures follow IFRS and provide stakeholders with sufficient information on the organization's performance a financial state.

2.5.3 Analysis of Overall Financial & Accounting Practices of MBL

It is evident that MBL has sound financial and accounting performance during the last five consecutive years; moreover, MBL follows IFRS and GAAP. A clear financial performance and key ratios have been depicted by the company, including a net profit margin increase from 23.08% in 2019 to 27.39% in 2023 and EPS from BDT 64.23 to BDT 122.93. IT managed its cash flows well and decreased debt levels in 2022, and the company exhibits best practices, which enhances its transparency to investors.

Nevertheless, there are still some issues in case. Use of debt has risen again in the year 2023, and efficiency factors like receivables turnover and inventory turnover are low, showing slow cash conversion cycles. The asset utilization has declined with ROA decreasing from 53.65% in 2021 to 33.28% in 2023. Cost increases and inflation have also affected the position, as the gross margin declined from 58.97% in 2021 to 51.82% in 2023.

To overcome these problems, MBL should work on collecting receivables more effectively, managing payables more efficiently, and utilizing debt for generating more revenues. Better inventory control, product sourcing, and operating efficiency can help improve asset use, that can help build upon this position. New markets could also help diversify products and decrease dependence on current products for revenue and growth.

2.6 Operations Management and Information System Practices

The operations management of MBL is done in an efficient and effective way and with specific attention to sustainability measures. MBL has long-term goals that seek to increase resources productivity and reduce unsustainability effects in the environment using Information Systems.

2.6.1 Operations Management in Quality Assurance, Scheduling & Allocation of Resources

Quality is maintained and controlled at MBL so that customers remain the focus and keeping customer satisfaction as the ultimate. MBL encourages the employees of the organization to be involved in the decision-icon making process as well as in the process implementation since it will make employees to feel like they own the processes. The above approach does not only enhance quality results, but also help organizations to achieve better employee satisfaction and staff turnover rates.

Every operation is examined to determine whether the gains outweigh costs. In a situation where costs outcompete the benefits, necessary actions are immediately initiated to correct the situation. Goals for tasks are designed sufficiently to allow for change if there is a need to do so. They are well planned for in order to ensure that each department gets what they require in order to work optimally. Resources can be directly given to the departments or projects which need more resources to achieve their objectives without affecting the overall organizational performance.

2.6.2 Information System Practices

MBL uses Information Systems to capture, store, process and present data to the MBL stakeholders and clients. The IT of this company refers to structures like computers and other related tools, electronic mail systems as well as programs like the **SAP, MiNET** and **Midas**, which play a critical role in organizing data and passing it through the company structures.

The current communication and collaboration technologies used by Marico Bangladesh Limited are **BLINK**, **Marico Intranet**, and **MemBrain**. These platforms enable the employees to view their data as well as input, modify and retrieve data accessible within that particular folder. One of the main ideas behind the system is to make it easily searchable for the employees across departments so that different departments can retrieve the information required whenever they need it.

Also, MBL has its own personal server linked with Central Depository Bangladesh Limited (CDBL) so that they can retrieve the BO ID, BO Name, and Dividend Payments directly of their current shareholders.

2.6.3 Analysis of Overall Operational Management Practices of MBL

In conclusion, MBL have successfully implemented OM System and Information Systems. But it is also to be noted that there is always room for improvement which means that better results can always be achieved.

2.7 Industry and Competitive Analysis

2.7.1 Porter's Five Forces Analysis of Marico Bangladesh Limited

The following is the Porter’s Five Force analysis to gain insight into competition that MBL has in the Bangladeshi context. And the industry MBL falls under is the Fast-Moving Consumer Goods (FMCG) so based on that I have done a comparative analysis with my own insights.

1. Threat of New Entrants

- High Brand Loyalty: The Parachute Coconut Oil by Marico has a good brand image and thus the competition is fenced off from entry.
- Economies of Scale: Large-scale operation makes it possible for MBL to have costs that are lower than those of the small and medium competitors are.
- High Capital Requirements: Pioneering supply chain networks of production and distribution in the FMCG sector has implications that are costly.
- Regulatory Barriers: Implementation of food safety and cosmetic regulations in Bangladesh can be a threat for new entrants.

2. Bargaining Power of Supplier

- Moderate Power: Most of the raw material inputs such as copra (coconut) are bought from outside the suppliers hence the suppliers have some degree of bargaining power.
- Supplier Diversification: MBL's worldwide sourcing and flexibility in switching suppliers reduce supplier bargaining power.
- Vertical Integration: MBL has only partly internalized operations, and therefore, the degree of reliance on outside suppliers has been somewhat lessened.

3. Bargaining Power of Buyers

- Moderate to High Power: As frequently consumers are served with many options in the FMCG market they are well capable of shifting to a competitor brand at will.
- Brand Loyalty: The supply chain management also poses as a threat to buyer bargaining power due to the established Marico brand names.
- Price Sensitivity: A common consumer characteristic in Bangladesh is the willingness to pay where efficiency cost or value for money is of great importance.

4. Threat of Substitutes'

- Moderate Threat: These products such as hair care products, edible oil and creams and so on can easily be found through homemade products, cheap imported products, and other contractual manufactured local products.
- Product Differentiation: Marico has ensured that its products were of high quality and released products with added benefits (for example hair oils) to reduce on the entrance of substitute products.

5. Industry Rivalry

- High Competition: The FMCG sector in Bangladesh is relatively saturated, where international giants such as Unilever as well as local ones like ACI and other regional players exist.
- Product Differentiation: Marico positions itself through branding, quality and innovation and this has eased the degree of rivalry slightly.
- Market Saturation: The edible oils and hair care segments are very well developed and hence, the level of competition tends to be high.
- Advertising and Promotions: General and administration expenses also significantly affect operations and need great attention as they relate to the establishment of major branch offices, major export market advertising, and customer concentrated advertising.

2.7.2 SWOT Analysis of Marico Bangladesh Limited

A SWOT analysis provides insight into MBL's strategic positioning:

1. Strengths:

- Parachute of MBL has a market share of 73% in the coconut oil segment in Bangladesh, and the brand is easily identifiable by the buyer.

- Besides Parachute, MBL has other products like Nihar, Suffola, Hair Code, and Beliphool in hair and skin products that satisfy the consumer needs.
- The company's products cover more than 450,000 retail outlets in Bangladesh and hence enjoy good market access.
- MBL has depicted a good picture of revenue enhancement in the last eight years with a compounded annual growth rate of 37.71% due to proper business strategies and market demand.

2. Weaknesses:

- MBL has never been in a position to generate revenues from some of the products that were developed, such as Parachute Hot Oil and Saffola Snacks.
- MBL has entered prestige categories relatively poorly because consumers primarily associated MBL's brands with value products, thereby restraining the company's expansion into more profitable segments.
- In the past year or so, the company has been introducing new products at a pace of more than one, and this has led to a rather large portfolio, which could be a problem; it could be that the company is spreading its efforts and money thin across many segments.

3. Opportunities:

- First of all, MBL has selected the right countries for the company's growth, for instance, Egypt, Vietnam, and Bangladesh, which give the company a possibility to penetrate the fast-growing markets.
- This means there is a market share opportunity for MBL to increase its range of products based on the increase in disposable income in Bangladesh.
- MBL can escape competition within these categories (anti-lice shampoo and fabric conditioners), as these are not targeted by multinationals; this is because the company can establish itself well-positioned within these categories.

4. Threats:

- MBL holds its competitive positions in front of competitions from similar domestic and international FMCG companies, which is a detriment to its market shares and profitability.
- Market trends towards natural and chemical-free products may pose new threats to the current product positioning strategies of MBL.
- The current political instabilities in the geographic location of the firm that is Bangladesh have affected functioning in the past, a feat that shows that functioning in a volatile environment is not without its drawbacks.

2.7.3 Analysis of Overall Industry Analysis of MBL

Marico Bangladesh Limited (MBL) competes in the competitive FMCG industry where it has tough competitors like Unilever and Reckitt. Its key advantages are the high market share in coconut oil due to Parachute brand (73%), the segmentation of the product line, and the broad coverage of the markets. However, factors like maturity of the market, customer resistance to high price, presence of substitutes and increasing preference for natural products call for innovation. As a result, MBL has strong brand images and economies to scale and cost; however, competition and changing consumer preferences remain essential factors for growth.

2.8 Summary and Conclusions

To conclude, MBL is quite effective and efficient in running the business operations, dominating the market, and enjoying brand royalty in FMCG sector. The key competencies that make up MBL are good management practices; centers on engagement, and performance, and offers fresh graduate programs aimed at development. This approach makes the MBL distinguish from other organizations in the Bangladeshi job market, where there are scarce chances for youth. Also, the company's tactical marketing initiatives like product differentiation of Parachute for, the middle- and lower-income earners, and Saffola for the health conscious, are evidences of its thorough research. In addition, leadership and technical training on MBL has created a pool of skilled and motivated people, while the finances of MBL shows a strong and stable growth in net profit margin and full compliance with IFRS and GAAP, which enhance investor confidence.

However, the analysis also lays bare some areas of weakness that must be realigned for future growth. Consequently, MBL is more focused on the hair and body care sector which inhibits its ability to diversify products and may put it in a difficult position in the future market. In terms of financial analysis, the firm has maintained sound cash flow management in the past, but current debt, slow conversion rates, and declining asset turnover that can act as push factors to the future performance. Similarly, there are operational systems which are quite effective but there is always room for more effectiveness and efficiencies.

2.9 Recommendations

From the evaluation done on MBL's practices, some recommendations will improve MBL's management, marketing, finances, accounting, and operations. For better management practices, MBL needs to incorporate potential appraisal system in addition to the existing performance appraisal system. This would assist in determining high performers, match their development plans with business objectives, and offer power conversations to entice and engage workers about their futures with the organization.

The company should diversify its products line to avoid heavy dependence on a few products to meet the current evolving market trends. Products like sanitary pads, toilet papers or any other related consumer products that have no close competition from existing firms specialized in hair and body products. Expanding a range of new products that would target more broad audience would also aid in the achievement of competitive strategy in new changing market of Bangladesh. The market should provide creative approaches towards advertising, YouTube influencers and associating with personalities to enhance the communication of their audience. Since MBL does not have a direct platform for selling their product, enhancing their online existence will increase the efficiency with which customers will be able to search for products and purchase without a hitch.

Specifically, from the financial perspectives MBL should concentrate on efficient management of receivables, better payables management and using debts as effective source of revenues. Better stock management and optimization of product acquisition would also alleviate slow cash conversion cycles and enhance the efficiency of assets. Moreover, tackling cost issues due to inflation through cost-effective measures might also level gross margins while enhancing the level of profitability.

In operational management, although MBL integrates well operational and information systems, the improvement is required to yield better outcome. Improving technology and automation can add to optimal organizational operations and yield higher productivity.

Chapter 3
Stock Valuation of FMCG Company in Bangladesh: A Comprehensive Fundamental and Technical Analysis of Marico Bangladesh Limited

3.1 Introduction

3.1.1 Background and Problem Statement

Marico Bangladesh Limited (MBL) is a leading Bangladeshi FMCG company. This study will help the investors to know if its stock price is undervalued or overvalued, or fairly valued. The aim of this research is to analyze the 5 years stock performance of Marico Bangladesh Limited (MBL) from 2019 to 2023. Applying both fundamental and technical analysis, I intend to evaluate MBL's intrinsic value, whether it is overvalued, undervalued, or fairly valued, while offering investors adequately informed recommendations.

3.1.2 Objectives

The overall objective of this research is to analyze Marico Bangladesh Limited's data to find its intrinsic value and make recommendations to the investors. Also, to contrast MBL's financial performance with 2 other FMCG companies in Bangladesh, Unilever Bangladesh Limited and Reckitt Benckiser Bangladesh Limited, by utilizing return distributions, beta, valuation ratios, and Monte Carlo Simulation.

The specific objectives are:

I. To determine the cost of equity for MBL stock using both Capital Asset Pricing Model (CAPM);
II. To calculate the intrinsic value of MBL's stock by implementing 2 of the fundamental valuation methods, which are Discounted Cash Flow Models (DDM and FCFE) and the Relative Valuation Mode/ Market Multiplier Model;
III. To apply 3 technical tools such as Relative Strength Index (RSI), Moving Average (Simple and weighted) and Bollinger Bands for an understanding of the MBL stock movements;
IV. To analyze the intrinsic value calculated from the technical tools and offering a quick investment recommendation based on my own perspective;
V. To assess MBL's stock performance with industry peers (Unilever Consumer Care Limited (UNILEVERCL) and Reckitt Benckiser (Bangladesh) PLC (RECKITTBEN)) using utilizing return distributions, beta, valuation ratios, and Monte Carlo Simulation.

3.1.3 Significance

For many stakeholders, this study is of significant. For investors, it is a detailed stock analysis of MBL's stock for making better decisions about buying or selling stock. Knowing the intrinsic value, dividend policies, and risk-return dynamics of MBL will allow the investor to ascertain the company's strategies that will fit the investor's financial goals.

This research offers some worthwhile suggestions for the financial analysts in the valuation of stocks using fundamental and technical analysis tools in the FMCG sector for Bangladesh. Moreover, it points out how macroeconomic factors affect market performance. The findings can help policymakers and regulators monitor the financial stability of the FMCG sector and adopt policies favorable to sustainable growth. The study serves as a performance benchmark, reminding the MBL and its stakeholders that the company is in necessity of improving the dividend strategy, reinvestment method, and market position.

Furthermore, the research gives other FMCGs in Bangladesh a pathway to measure their stock performance and competitiveness in the market. The study serves as a case study in financial modeling and valuation techniques in the context of emerging markets for academics and researchers, bridging the theory and the practice gap. This research indeed indicates that data-driven analysis of stocks now holds more than ever a pristine place in developing financial literacy, inspiring confidence in investors, and improving the overall economic touch of the FMCG sector in Bangladesh.

3.1.4 Scope of the Study

It focuses on MBL's financial data from 2019 to 2023. Also, compared with other FMCG companies in Bangladesh. I covered both fundamental and technical analysis like DCF (DDM and FCFE), market multipliers, RSI, moving averages (Simple and Weighted), and Bollinger Bands, respectively to find out the intrinsic value of MBL stock.

3.2 Literature Review

According to the studies on the Bangladesh stock market the fundamental approach and technical approach are required to determine the performance of shares and to evaluate the real value of shares. This section describes how these methods are used according to studies of stock valuation in Bangladesh.

Fundamental analysis deals with facts of a company and its position in the economy in order to arrive at an accurate estimate of the value of a share. On the efficiency of the CAPM, the authors concluded that it is applicable for the Dhaka Stock Exchange (DSE) as observed by Rahman et al. (2006). Since CAPM aids in estimating the cost of equity while factoring market risk as well as business risk, it assists investors in accurately gauging the risks they are subject to when investing their funds in specific organizations.

Other authors reveal that it is possible to use such models as, for instance, the Dividend Discount Model (DDM) or Free Cash Flow to Equity (FCFE) to determine the intrinsic value. Imam and Jaber (2014) pointed out that such calculations require correct financial data. According to Chowdhury and Ali (2010), there is a significant relationship between dividend announcement and stock prices, which is why it is mentioned that dividends remain an important aspect of valuation.

Another concept that is relevant in fundamental analysis is Inflation. For instance, Rahman et al (2006) established that the risk-free rate estimated on 91-day government Treasury bill is associated with the average inflation of 6.64 percent in Bangladesh. This makes sure that this formulas of the CAPM are accurate.

Technical analysis employs market price data to identify charts of stocks and their future performance. Alam et al. (2017) reported the efficiency of DSE as partly efficient which implies that price and information are not fully aligned and revealed. Consequently, using Moving Averages, the Bollinger Bands, and Relative Strength Index (RSI) can be helpful to identify the price trends and the levels of market volatility. To predict the stock prices in Bangladesh, Muhammad et al. (2022) proposed the use of technical indicators with machine learning. From their research, they indicated that RSI on stock and Bollinger bands are important in analyzing short term price fluctuations. Likewise, Moberek and Keasey (2000) noted that given that the Bangladesh stock market is inefficient the technical analysis can be used to identify trading opportunities.

3.3 Methodology

I have used a quantitative research method to assess the performance of the shares of Marico Bangladesh Limited (MBL) from 2019 to 2023, combining fundamental and technical approaches. The approach includes data collection, data analysis, and different modeling strategies to obtain the goals.

This research uses both **fundamental analysis**, **technical analysis** and **peer comparison** to evaluate the performance and valuation for Marico Bangladesh Limited (MBL)'s stock. Data collected includes historical stock prices from the year 2019 to 2023 to be used to establish the stock's intrinsic value and make an informed investment decision. All data for calculations were extracted from the Dhaka Stock Exchange (DSE), Bangladesh Bank and the MBL's Annual reports and published sources. The detailed model and the description of the variables are given in the next chapter under the findings and analysis under the relevant chapters.

For **fundamental analysis**, beta was also computed in order to determine its coefficient with respect to the market risk and systematic risk using past historical stock prices of MBL and DSEX index for the period 2019-2023. The cost of equity was estimated using CAPM and GGM models by applying coefficients such as risk-free rate, market return and dividend growth rate including information from Bangladesh Bank's website and Investing.com. Intrinsic value was determined using the DCF models, including the DDM and FCFE methods alongside the relative valuation method. Also, to find out the ranges of valuation estimates, a sensitivity analysis is done. Lastly, each model's intrinsic values were used demonstrated.

In **technical analysis**, the movement of stocks prices and trading volumes from year 2019 to 2023 was analyzed in order to establish trends and the data was collected from the Investing .com website. 3 technical indicators were applied: Relative Strength Index (RSI), simple and weighted Moving Averages, and Bollinger. These tools gave the information that was required to give a quick outlook into the price movement of MBL's stock and thereby form an investment advice.

Also, a **peer comparison** where MBL's financial performance with 2 other FMCG companies in Bangladesh, Unilever Bangladesh Limited and Reckitt Benckiser Bangladesh Limited is compared, by utilizing return distributions, beta, valuation ratios, and Monte Carlo Simulation. And all the detailed model and the description of the variables are provided under the relevant sub chapters.

3.4 Findings and Analysis

3.4.1 Investment Thesis

Marico Bangladesh Limited is one of the leading fast moving consumer goods companies that can be considered as highly attractive investment in the near future based on its dominating market position and further growth perspective. The 5 valuation models under fundamental analysis have different results. In DDM and FCFE using growth models, there is indication of overvaluation while in DDM and FCFE using Price-to-Earnings (P/E) as well as the Market Multiplier Model (MMM), indicates undervaluation of MBL stock. From my perspective, an investor should **"Sell"** their stock if they are holding it right now since DDM using the Gordon model best suits MBL's high dividend yield structure and the intrinsic value for this fundamental model is lower than the current market price.

3.4.2 Price Volume Chart of MBL

The analysis of the price volume chart of Marico Bangladesh Ltd from 2019-2023 shows that the company has experienced significant fluctuation during these years. In the initial period especially around 2019, the fluctuations in the stock price were very volatile that shows upswings and downswings trends in the chart.

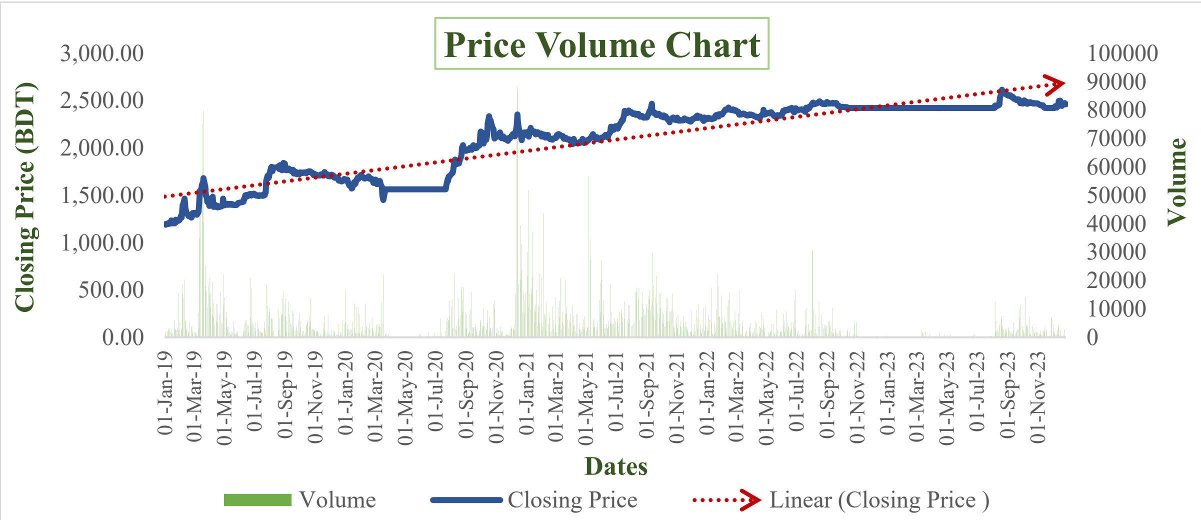


Figure 25 Price Volume Chart of MARICO

From March 23, 2020 to June 17, 2020, there was no fluctuation found in the Marico Bangladesh's share price which is 1,562.50 BDT. This stability was attained at a time when the markets were experiencing a lot of fluctuations especially due to the effects of COVID 19. The stable prices indicate that either MBL announced a floor price. The chart indicates that as time goes on, especially after mid-2020, the volatility appears to decline.

There is a continuation of the situation where there are occasional increases in price and the level stabilizes with fewer fluctuations. From the year 2021 and beyond, the price follows a steadier rising trend while the trading volume also has a tendency to experience less fluctuations pointing toward a more stable period for the company. Such a transition from a high variability level of the market to persistent fluctuations might be explained by the maturation of the company, with consistently lower fluctuations in the recent period.

3.4.3 Performance of MBL Script

For the 5-year (2019-2023) time frame, MARICO stock has outperformed the DSEX market and has generated substantial return for their shareholders.

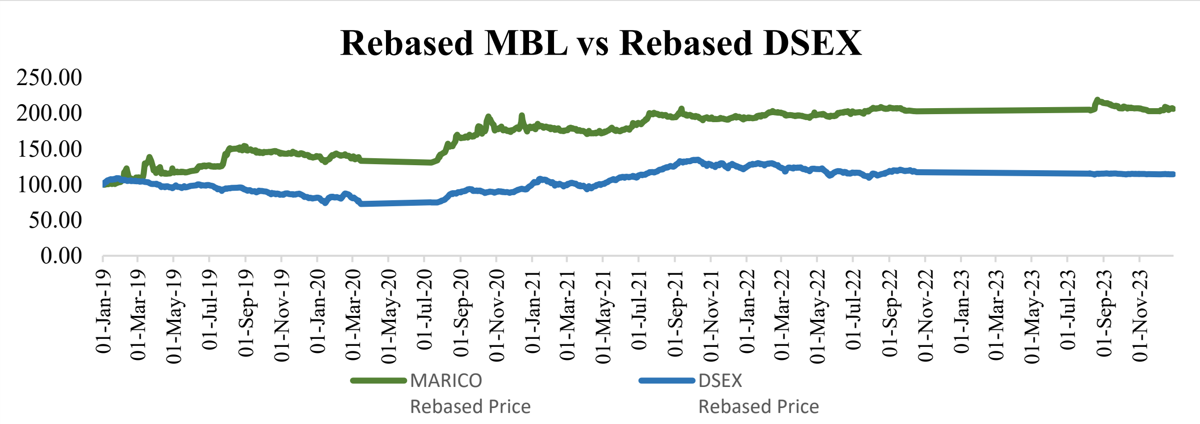


Figure 26 Rebased MBL Price vs Rebased DSEX

As shown in the chart, MBL index was rebased and compared with DSEX index throughout from January 2019 to December 2023. I have taken the first data for both MARICO and DSEX the base point starting at 100 **(Appendix 1)**.

The formula I used to calculate both MARICO and DSEX Rebased Price is given below:

$$\textbf{Rebased Price} = \left(\frac{\text{Current Price}}{\textit{Base Price}}\right) \times 100$$

The rebased price shows a positive movement with an accelerated growth beginning from the year 2020 and is succeeding at a faster pace than the overall DSEX. This indicates company-specific growth and stability for the companies during the period of change in the market conditions. On the other hand, the DSEX index shows more or less flat or declining movement normalized for the broader market performance and recovery periods. Such great disparity between MBL and the DSEX demonstrates Marico’s ability to seize the opportunities prevalent in the market and deliver higher returns during the period under analysis.

3.4.4 Beta Calculation of MBL

In order to do the valuation of MBL, we need required rate of return (CAPM) and for which beta is an important component. Before calculating the beta, there has been some consideration and changes made **(Appendix 2)**. For example, there are some outliers due to several factors which have to be removed for accurate beta calculations. Discrete returns for both MARICO and DSEX that were above or below the range of +- 5.50% were excluded. For instance, out of all the data available, 8.20% return on 25-July-19 was removed; due to the release of Private Sensitive Information (PSI) which increased Marico Bangladesh Limited’s stock value significantly (MARICO, n.d). This was the first dividend declaration of the MBL for 2019 1st interim and because of this the investors were optimistic about the company and thus witnessed an abnormally high return which is why this outlier has been eliminated for the calculation of beta. Moreover, all the 0% returns on 23 March 2020 - 22 July 2020, 18 October 2022 - 3 August 2023, 20 November 2023 – 30 November 23 due to floor price and other factors are excluded, for correct beta evaluation and normal stock price volatility. Also, the imposition of floor prices in July 2022 has been eliminated (Marico Stands Out from the Rest of Its Listed Multinational Peers, 2023).

Then the beta is calculated using excel fromulas:

Alpha (MARICO, DSEX)	0.0008
R-squared (MARICO, DSEX)	0.0323
Beta, β	0.2325

Table 3 MBL Beta using Alpha & R-squared

Alpha: It is the intercept of the regression line using the excel formula intercept for both MARCIO and DSEX descreate returns. In this context, 0.0008 refers to the MBL's additional return over that expected from the DSEX index movement.

R-Squared: The coefficient (R^2) is 0.0323 using the RSQ excel formula. It shows that the movements in the price of MBL is about 3.23% influenced by the movements in the DSEX index. This is relatively low and therefore there are factors outside the market index that have substantial influences on MBL's returns. For example, the company-specific or the industry specific factors have more influence on MBL's return than the DSEX index.

3.4.4.1 Beta Analysis of MBL

Beta (β) of 0.2325 indicates that for every 1% change in the DSEX index, the stock price of Marico Bangladesh Limited is expected to fluctuate or change by 0.2325% in the same direction as DSEX index.

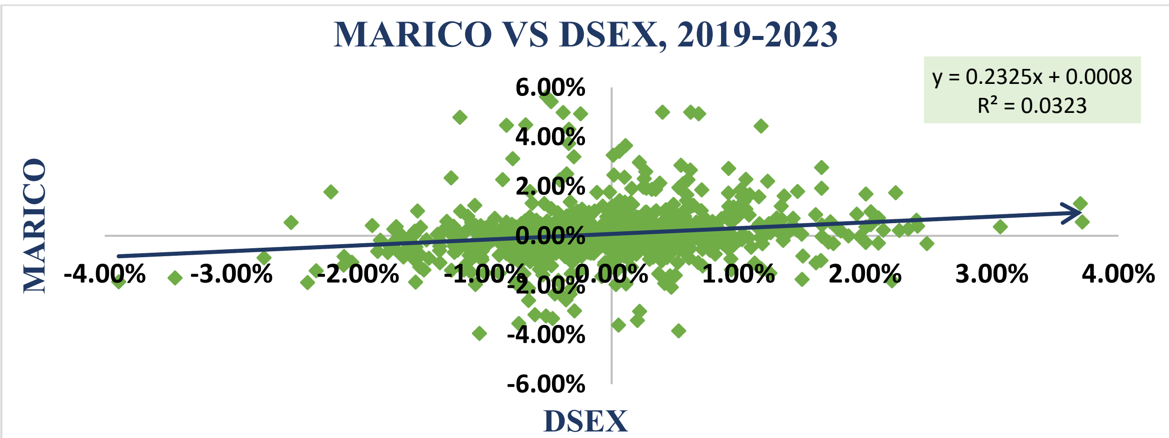


Figure 27 MBL Beta Chart using Linear Trend

A beta of less than 1 means MBL's stock is less volatile and risky compared to the market, which is a favorable characteristic of a company with stable earnings, and with comparatively low risk of direct exposure to the market.

From the beta analysis, it is clear that MBL has lower risk than the overall market since the beta of 0.2325 is lower than the DSEX index. Investors of MBL may therefore enjoy relatively lower volatility in their stocks when compared to those in broader market indexes. This may be desirable for risk averse investors who seek lower-risk investment opportunities.

Since, MBL operates within the fast-moving consumer goods (FMCG) sector it is common for organizations in industries that produce such items as consumer goods or essential products, which are generally not very sensitive to fluctuations in the critical economic situations. The exposure of MBL to market risk could not be that high compared to sectors like technology, finance institutions etc.

Nevertheless, it should also be mentioned that lower beta means less exposure to the market risks and even lower profit in periods of growing stock prices. Some investors who want to get high returns in the highly appreciated markets will not achieve the same high results from the shares with low beta but for the investor who prioritized stability, such beta is appropriate for Marico's sector and degree of risk.

3.4.5 Required Rate of Return Calculation of MBL

3.4.5.1 Market Return (R_m)

To calculate the Capital Asset Pricing Model (CAPM) for valuation of MBL stock first I need to calculate the market return. In order to calculate the market return, I have first collected the Market Capitalization (in BDT) from Bangladesh Bank Annual Report from 2018 to 2023 (Bangladesh Bank Annual Reports, 2024).

Then from the gathered data I have calculated the discrete and compounded returns of Market Capitalization (Appendix 3). The formula used are shown below:

$$\textbf{Discrete Return} = \frac{\text{Market Cap (Current Year)} - \text{Market Cap (Previous Year)}}{\text{Market Cap (Previous Year)}} \times 100$$

$$\textbf{Compounded Return} = (1 + \mathit{Discrete\ Return})$$

Using Market Cap (TK in million)			
Year	Market Cap	Return	
		Discrete	Compounded
2018	3847300.00		
2019	3998200.00	3.92%	103.92%
2020	3119700.00	-21.97%	78.03%
2021	5142800.00	64.85%	164.85%
2022	5177800.00	0.68%	100.68%
2023	7654720.00	47.84%	147.84%

Table 4 Discrete and Compounded return of Market Cap

From that, I have calculated the Geomean return of market capitalization of 2019 to 2023 and the market return, R_m is **(14.75%)**. Market capitalization, is the sum total value of a company in the stock market thus making it a good measure of its size and power. It has been established that by using Market Capitalization, I can target the generalized real-world market performance which directly impacts an investor's point of view. Hence, I chose Market Capitalization of Bangladesh from 2019 to 2023 to calculate the market return for CAPM.

3.4.5.2 Cost of Equity using Capital Asset Pricing Model (CAPM)

I have calculated the cost of equity using CAPM. First of all, I took the risk-free rate of last 5 years since I am doing an analysis based on 5 years data and in the dividend discount model the projections will also be done for next 5 years. The 5-year risk free rate average as of December 4, 2024 (12.45%) helps to adjust of short-term fluctuations thus producing a more realistic cost of equity figure. And this data was collected from the CEIC: Global Economic (Bangladesh Bangladesh Government Treasury Bond Rate, 2024).

The formula used to calculate the Capital Asset Pricing Model (CAPM):

$$\boldsymbol{Cost\ of\ Equity}\ (\boldsymbol{CAPM}), \boldsymbol{r_e} = Rf + \beta * (Rm - Rf)$$

Current Price (4/12/2024)	2,321.80
Cost of Equity (CAPM)	**12.98%**
Beta	0.2325
Risk-Free Rate (5 years T Bond)	12.45%
Average Market Return	14.75%

Table 5 CAPM Calculation

The cost of equity of **12.98%** indicates that the minimum required rate of return an investor needs to be willing to invest in MBL stock is **12.98%**. It represents the payout that equity investors require for bearing risk of holding stocks of MBL.

In other words, MBL's cost of equity of 12.98% is less than the market returns of 14.75%, it means that MBL's stock is less risky as compared to the market. The investors expect less return on MBL as compared to the general stock market returns which are typical for less variable firms.

3.4.6 Stock Valuation of MBL

My goal is to analyze Marico Bangladesh Limited's last 5 years' stocks from 2019 to 2023 to find its intrinsic value by using fundamental and technical analysis and make recommendations to the investors. This stock valuation is done utilizing 2 methods of fundamental analysis: Discounted cash flow (DCF) models which includes the Dividend Discount Model (DDM), Free Cash Flow to Equity (FCFE) Model and a relative valuation model or market multiplier model (MMM). Additionally, technical analysis has been done using tools like the Relative Strength Index (RSI), Moving Average (Simple, Weighted), Bollinger Bands based on the historical trading data of MBL, which will help investors make timely investment decisions and track on the stock pattern.

3.4.6.1 Fundamental Analysis

The intrinsic value of MBL's stock is determined using 2 methods of fundamental analysis to see whether the stock price of MBL is undervalued, overvalued or fairly valued.

3.4.6.1.1 Dividend Discount Model (DDM)

- The DDM exclusively relies on the dividends, which are actual payouts of earnings yielded to shareholders. This approach relies on the belief that dividend figures reflect the value of equity most appropriately.
- This approach may result in a lower equity valuation if the company has reinvestments, thus lower dividend payouts are recognized.

I will be using 2 ways to calculate the dividend discount model of Marico Bangladesh Limited. One is using Gordon Growth Model (GGM) and another one is using Industry P/E. To calculate the intrinsic value of MBL using DDM, I need the terminal value. Moreover, to calculate the terminal value, there are some projections and assumptions needed which will be demonstrated right below.

In order to project the next 6 years starting from 2024 to 2029, there are some assumptions made from the historical data. First, I have calculated the percentage of revenue and growth for the MBL's Revenue, operating profit, net profit, EPS and Dividend paid. From which I found out the dividend payout ratios and number of shares.

BDT	Historical Data					
	2018	**2019**	**2020**	**2021**	**2022**	**2023**
Revenue	7,814,663,479	8,768,160,138	9,795,911,357	11,306,519,256	13,032,188,243	14,135,741,140
Growth		12.20%	11.72%	15.42%	15.26%	8.47%
Operating Profit	2,136,042,141	2,591,547,066	3,566,842,722	4,284,691,947	4,644,343,824	5,137,879,525
Growth		21.32%	37.63%	20.13%	8.39%	10.63%
% of Revenue	27.33%	29.56%	36.41%	37.90%	35.64%	36.35%
Net Profit	1,644,976,436	2,014,549,025	2,629,968,493	3,083,892,164	3,572,484,914	3,889,758,334
Growth		22.47%	30.55%	17.26%	15.84%	8.88%
% of Revenue	21.05%	22.98%	26.85%	27.28%	27.41%	27.52%
EPS	52.15	64.23	84.01	98.69	112.82	122.93
Growth		23.16%	30.80%	17.47%	14.32%	8.96%
Dividend Paid	1,732,500,000	1,575,000,000	3,150,000,000	2,835,000,000	2,520,000,000	963,573,744
Growth		-9.09%	100.00%	-10.00%	-11.11%	-61.76%
% of Revenue	22.17%	17.96%	32.16%	25.07%	19.34%	6.82%
Dividend Payout Ratio	105.32%	78.18%	119.77%	91.93%	70.54%	24.77%
No of Shares	**31543172**	**31364612**	**31305422**	**31248274**	**31665351**	**31642059**
No of Shares (in crore)	**3.15**	**3.14**	**3.13**	**3.12**	**3.17**	**3.16**

Table 6 Growth, Revenue based on Historical data

The formula used for 2023 is shown below:

$$\boldsymbol{YoY\ Growth} = \left(\frac{Revenue\ or\ Operating\ Profit\ or\ Net\ \ Profit\ or\ EPS\ or\ Dividend\ Paid\ of\ 2023}{Revenue\ or\ Operating\ Profit\ or\ Net\ \ Profit\ or\ EPS\ or\ Dividend\ Paid\ of\ 2022}\right) - 1$$

$$\%\ \boldsymbol{of\ Revenue} = \left(\frac{Operating\ Profit\ or\ Net\ \ Profit\ or\ EPS\ or\ Dividend\ Paid\ of\ 2023}{Revenue\ of\ 2022}\right) \times 100$$

$$\boldsymbol{Dividend\ Payout\ Ratio} = \frac{Dividend\ Paid}{Net\ Profit} \times 100$$

$$\boldsymbol{Number\ of\ Shares} = \frac{Net\ Profit}{EPS}$$

The financial performance of MBL based on 2018 to 2023 has depicted the revenue growth, operating profit, net profit, and earnings per share (EPS). The revenues increased at an average of 10.33% YoY, with an accelerated increase of 15.26 % in FY 2021-22 but declined to 8.47% in FY 2022-23. Earnings per share ratios showed better prospects of earning generation as evidenced by increase from 52.15 in 2018 to 122.93 in 2023. However, a threshold concern arises with the possibility of change of dividend policy that is depicted by a sharp decline of 61.76% in 2023, which was the lowest in 5 years (Fardaus, 2024). Due to this lowest dividend paid, the dividend payout ratio was also reduced to 24.77 % in the year 2023 from 119.77 % in the year 2020.

Now, based on the given chart, the projection for 2024 to 2029 has been done using assumption.

Average Growth	Assumptions	Projections					
		2024	2025	2026	2027	2028	2029
Revenue	**10.33%**	15,596,619,107	17,208,473,553	18,986,907,354	20,949,135,888	23,114,153,678	25,502,918,263
Operating Profit	**33.86%**	5,281,577,493	5,827,409,516	6,429,651,315	7,094,132,635	7,827,285,708	8,636,207,513
Net Profit	**25.51%**	3,979,179,130	4,390,412,970	4,844,146,348	5,344,771,437	5,897,134,327	6,506,581,933
EPS	**18.94%**	102.16	112.71	124.36	137.22	151.40	
Dividend Payout Ratio	**81.23%**	3,232,454,744	3,566,517,307	3,935,104,034	4,341,782,871	4,790,490,503	5,285,570,454
Dividend/ Share		**102.16**	**112.71**	**124.36**	**137.22**	**151.40**	**167.04**

Table 7 2024 to 2029 Projection

The average growth of revenue, operating profit, net profit, EPS and Dividend payout ratios. For 2024-2029 is then calculated.

- **Assumptions of average growth rate for forecasting next 6 years:**

For the revenue, I have only taken the average of 2019 and 2023. Since MBL's products are focused on personal care, it falls under the necessary items and during COVID-19, they had huge boom unlike companies from different industry. That is why taking revenue average for 2020-2022 would result in an abnormal growth in revenue. As we can see in 2023, their revenue has declined to 8.47%.

For the operating profit, net profit, and EPS an average of all 5 years has been considered since there is less fluctuations in values.

Focusing on the last years, the MBL's dividend payout ratio fluctuated between 78.18% and 119.77% until the year 2022, which greatly decreased in 2023 and became 24.77%, being the lowest in last 8 years. However, the company's decision to cut its planned payout implies a change in financial management even with 19% profit growth. My expectation is that in 2024, MBL will still be distributing higher dividends since they have been giving high dividend yields except 2023. To estimate future dividends, the average of dividend payout ratio is calculated using the average of 2021 and 2022 dividend payout ratio resulting in 81.23%. Since, MBL is a well-known and established MNC in Bangladesh they are in maturity phase and will most likely to continue paying higher dividends as most MNC in Bangladesh pays higher dividends.

In order to calculate the intrinsic values, the terminal values are calculated which is added at the 5th year of total cash flow for both Gordon Growth Model and Industry P/E. **The formula for terminal value using Gordon Model and Industry P/E is shown below:**

$$\boldsymbol{Terminal\,Value, V_n} = \frac{\boldsymbol{D_{n+1}}}{\boldsymbol{r-g}}$$

- $D_{n+1}(\,D_6)$ = Dividend in the first year after the projection period (Year 5+1 = 2029)
- r = Cost of equity using CAPM
- g = Long Term Growth Rate

$$\boldsymbol{Terminal\,Value\ using\ Gordon\ Gordon\ Model, V_5} = \frac{Dividend\ per\ Share\ of\ 2029, D_6}{(Cost\ of\ Equity\ (CAPM) - Long\ Term\ Growth\ Rate)}$$

$$\boldsymbol{Terminal\,Value\ using\ Industry\frac{P}{E}, V_5} = EPS\ of\ 2028 \times Industry\ P/E$$

Terminal Value using Constant Gordon Model (DDM), V_5	**2536.81**
Terminal Value using Industry P/E (DDM), V_5	**4837.87**

Here the long-term growth rate of Bangladesh is 6.4% between 2010 to 2023 data, which is collected through the World Bank official website (The World Bank In Bangladesh, 2024). For the terminal value using P/E ratio, industry P/E ratio was calculated (**Appendix 4**). For the calculation of average industry P/E ratio, I have taken 5 companies with similar market capitalization listed in the Dhaka Stock Exchange (DSEX) as of December 4, 2024. Thus, I have multiplied the last years EPS which is 2028 with the industry P/E ratio in order to calculate the price of MBL at the end of 5th year. And I am assuming an investor will get these value **(2536.81 by using Gordon Model or 4837.87 using Industry P/E)** at the end of 5th year.

Based on the total CF using Gordon model and Industry P/E, the present value for both is calculated using the formula below:

$$\textbf{Present Value using Gordon Growth Model} = \frac{\text{Total CF Gordon}_n}{(1 + Cost\ of\ Equity\ (CAPM))^n}$$

$$\textbf{Present Value using Industry}\frac{\mathbf{P}}{\mathbf{E}} = \frac{\text{Total CF P/E}_n}{(1 + Cost\ of\ Equity\ (CAPM))^n}$$

$$\textbf{Intrinsic Value per share}\left(\textbf{Gordon or }\frac{\mathbf{P}}{\mathbf{E}}\right), \boldsymbol{V_0} = \epsilon \text{ of Present Values (Gordon or } \frac{\text{P}}{\text{E}})$$

Total CF Gordon	112.71	124.36	137.22	151.40	2703.85
Present Value Gordon	99.76	97.42	95.14	92.90	1468.53
Year	1	2	3	4	5
Intrinsic Value/Share	**1853.75**	**DDM using Gordon Growth Model (Overvalued)**			

Total CF P/E	112.71	124.36	137.22	151.40	5004.91
Present Value P/E	99.76	97.42	95.14	92.90	2718.30
Year	1	2	3	4	5
Intrinsic Value/Share	**3103.52**	**DDM using Industry P/E (Undervalued)**			

Table 8 Intrinsic Value per share using Gordon Model and Industry P/E

First, the discrepancies **(2536.81 and 4837.87)** between the Gordon and industry P/E of terminal value are huge because the P/E ratio of industry is very high **(31.96).** In addition, due to this high terminal value the intrinsic value of MBL results in **3103.52 BDT** using Industry P/E. Moreover, the intrinsic value using the Constant Growth Model results in **1853.75 BDT**.

3.4.6.1.1.1 Analysis of Intrinsic Values and Investment Recommendation

To select the best intrinsic value that can be useful to guide investment decisions for MBL, it's necessary first to understand the assumptions, advantages, and weaknesses of the 2 methods, namely the Gordon Growth Model (GGM) and the Industry P/E Model for DDM. These models offer different approaches to the valuation issue adapted to different types of investors and financial states.

- **Intrinsic Value of DDM using Gordon Growth Model (1853.75 BDT):**

Using Gordon Growth Model, the company has an intrinsic value of **1853.75 BDT**, which is much lower from the current price **(2321.80 BDT)** of MBL. Especially, this model is appropriate for the firms paying stable dividends, those that possess highly predictable cash flows and expected rates of growth. This means that it calculates the current value of future dividends, which are usually very conservative and suitable to income investors. However, it assumes that dividends are growing at a steady rate and that there are not many opportunities for reinvestment, which can be especially unhelpful for fast-growing companies like MBL if it is reinvesting its profits in growth and higher earnings. Further, GGM does not incorporate an opportunity for capital gains, and this is so important especially for growth-oriented stock.

From my perspective, MBL is already a matured company that pays high dividends, so the DDM using GGM is more appropriate as it best estimates the company's worth by reference to the expected cash flows.

Thus, if an Income Oriented investor who focuses on dividend yield and conservative valuation is holding the MBL stock then he/she should sell the stock to gain in the short run since the MBL's stock is Overvalued by (2321.80 - 1853.75) = 468.05 BDT.

- **Intrinsic Value of DDM using Industry P/E Ratio (3103.52 BDT):**

DDM using the Industry P/E gives an intrinsic value of **3103.52 BDT** which indicates that the real value of the MBL stock is much higher than the current price of **2321.80 BDT** in the market. This valuation approach, therefore, standardizes MBL against the industry's competitors based on market value and growth prospects. It is more appropriate for the firms that seek growth or those that have a tight relation to the trends in the industry. The model expresses MBL's earnings growth and potential for price increase, something that attracts the investor seeking capital gains. Nevertheless, this approach may lead to high stock valuation since the industry P/E ratio is high (31.96). Furthermore, this Industry P/E Model disregards dividend payments, which may be reasonable to investors interested in income.

From my perspective, MBL's is not a growth-oriented company which is why the industry P/E model is not suitable for MBL's stock since it captures the reinvestment opportunities.

Thus, if a Growth Oriented investor who focuses capital gains using price appreciation is holding the MBL stock then he/she should hold the stock since the MBL's stock is Undervalued by (3103.52 - 2321.80) = 781.72 BDT. Moreover, if any growth-oriented investors are not holding the stock then they should buy the stock to gain in the end.

3.4.6.1.1.2 Sensitivity Analysis

Finally, the sensitivity analysis of DDM using Gordon Growth Model (GGM) for MBL shows that the intrinsic value is bound to change with modifications to the growth rate and the required return (CAPM). This is helpful in getting an insight of the spread of potential valuations and helps in the determination of the major components that determine the value of the stock.

Sensitivity Gordon Model								
Growth Rate, g	Required Return (CAPM)							
1853.75	11.50%	12.00%	12.50%	13.00%	13.50%	14.00%	14.50%	15.00%
6.10%	2289.97	2094.96	1930.42	1789.73	1668.04	1561.76	1468.13	1385.02
6.20%	2323.84	2122.66	1953.41	1809.05	1684.46	1575.84	1480.31	1395.63
6.30%	2359.01	2151.33	1977.15	1828.95	1701.33	1590.29	1492.78	1406.48
6.40%	2395.55	2181.03	2001.66	1849.45	1718.68	1605.11	1505.56	1417.58
6.50%	2433.57	2211.80	2026.98	1870.59	1736.53	1620.33	1518.66	1428.94
6.60%	2473.13	2243.71	2053.17	1892.38	1754.89	1635.97	1532.09	1440.57
6.70%	2514.34	2276.83	2080.26	1914.87	1773.79	1652.03	1545.86	1452.48
6.80%	2557.30	2311.22	2108.30	1938.08	1793.26	1668.53	1559.99	1464.68

From	1385.02
To	2557.30

Table 9 Sensitivity Gordon Model (DDM)

GGM sensitivity analysis of MBL reveals the intrinsic value at different long term growths and required return rates varies from 1385.02 BDT when the growth rate is 6.1% with 14% required return rate to 2557.30 BDT when the growth rate is 6.8% and the required return rate is 11.5%. Here also it can be seen that high growth rates lead to high valuation and high-required returns have negative impact on the valuation.

The P/E sensitivity analysis for MBL results into the intrinsic value ranging from 1957.30 BDT to 3481.88 BDT depending on the industry P/E and required rate of return of MBL.

Sensitivity P/E								
P/E Ratio	Required Return (CAPM)							
3103.52	11.50%	12.00%	12.50%	13.00%	13.50%	14.00%	14.50%	15.00%
20.00	2251.99	2206.57	2162.32	2119.19	2077.16	2036.19	1996.24	1957.30
22.00	2427.69	2378.39	2330.35	2283.54	2237.92	2193.45	2150.10	2107.84
24.00	2603.39	2550.20	2498.38	2447.88	2398.67	2350.71	2303.96	2258.38
26.00	2779.09	2722.01	2666.41	2612.23	2559.43	2507.97	2457.81	2408.92
28.00	2954.79	2893.82	2834.43	2776.57	2720.18	2665.23	2611.67	2559.46
30.00	3130.49	3065.64	3002.46	2940.91	2880.94	2822.49	2765.53	2710.00
32.00	3306.18	3237.45	3170.49	3105.26	3041.69	2979.75	2919.39	2860.54
34.00	3481.88	3409.26	3338.52	3269.60	3202.45	3137.01	3073.24	3011.09

Value Ranges From	1957.30
Value Ranges To	3481.88

Table 10 Sensitivity P/E (DDM)

The intrinsic value calculation reacts strongly to modifications in P/E ratios and required return rates. Stock valuation increases because of P/E ratios rising since market confidence grows more optimistic about EPS prospects but such rises are counteracted when required returns grow stronger. The analysis gives investors important observations about how value spreads across different market environments through which investors understand the stock valuation dynamics.

3.4.6.1.2 Free Cash Flow to Equity (FCFE)

- FCFE reflects cash flow which includes real amount of cash available to the equity holders after providing for cost, taxes, reinvestments, changes in net working capital assets and liabilities.
- Business with low dividend payout ratio and future reinvestment and probable growth would be far much higher FCFE than the DDM.

To calculate the intrinsic value from the Free Cash Flow to Equity (FCFE) method first I have calculated the FCFE, FCFE Growth Rates using the following formula:

$$\textbf{Free Cash Flow to Equity (FCFE)} = \text{Cash From Operating} - \text{CAPEX} + \text{Net Borrowing}$$

$$\textbf{Arithmetic FCFE Growth Rate} = \frac{Current\ Year's\ FCFE}{Previous\ Year's\ FCFE} - 1$$

$$\textbf{Geometric FCFE Growth Rate} = 1 + Arithmetic\ FCFE\ Growth\ Rate$$

Now to calculate the intrinsic value I need FCFE from 2024 to 2028 which can be calculated by the FCFE growth rate and the calculations are shown below.

Using Cash from Operating						
Year	Cash From Operating	CAPEX	Net Borrowing	FCFE	Growth Arithmetic	Growth Compound
2018	1,550,522,746	83,275,325	300,000,000	1,767,247,421		
2019	2,729,173,826	88,842,501	-100000000	2,540,331,325	44%	144%
2020	3,012,957,714	320,280,709	-200,000,000	2,492,677,005	-2%	98%
2021	3,304,608,823	241,574,664	250,000,000	3,313,034,159	33%	133%
2022	3,605,353,998	313,759,008	-250,000,000	3,041,594,990	-8%	92%
2023	5,393,901,438	517,290,654	0	4,876,610,784	60%	160%
					Growth Rate of FCFE	**22.51%**

Table 11 FCFE Growth Rate (Cash from Operating)

Since MBL has huge amount of borrowing and repaying, taking geometric growth rate from arithmetic would have resulted an error. Which is why I have calculated the compounding growth rates and took the average from there. “Cash from Operating Activities” method is appropriate for FCFE intrinsic value for MBL as it concerns real cash flows that underline the essence of equity valuation. This method eliminates non-operating cash account adjustments such as depreciation and gives a better understanding of the amount of cash shareholders can access after operating activities, capital expenditure, and net borrowing. Hence, the FCFE growth rate is **22.51%** which will be used to forecast the FCFE from 2024 to 2028.

Now in order to find the intrinsic value using the FCFE valuation methods, I have first forecasted the FCFE of next 5 years from 2024 to 2028. **The formula for the forecasted FCFE, the Present Value, and terminal value for both Gordon Model and P/E ratio is given below:**

$$\textbf{Forecasted FCFE} = \text{Last Years}'FCFE \times (1 + Growth\ Rate\ of\ FCFE)$$

$$\textbf{Present Value of FCFE} = \frac{\text{Forecasted FCFE}_n}{(1 + Cost\ of\ equity\ (CAPM))^n}$$

$$\textbf{Terminal Value using Gordon Growth Model}, \boldsymbol{V_5} = Forecasted\ FCFE\ of\ 2028 \times Long\ Term\ Growth\ Rate$$

$$\textbf{Terminal Value using Average}\ \boldsymbol{\frac{P}{E}}, \boldsymbol{V_5} = Forecasted\ FCFE\ of\ 2028 \times Average\ of\ Last\ 5\ Years\ Marico\ P/E$$

Time	Forecast	Forecasted FCFE	PV
1	2024	5974234182	5287646502
2	2025	7318909718	5733327258
3	2026	8966243678	6216573183
4	2027	10984358160	6740550539
5	2028	13456708130	7308692463
Terminal Value Calculated using Long-Term Growth Rate			
5	2028	861229320	467756318
		Total	**31754546263**
Terminal Value Calculated using Last 5 Years of P/E Ratio			
5	2028	276131650836	149974369343
		Total	**181261159289**

Table 12 Terminal Value using Gordon Model and P/E ratio for FCFE

$$\textbf{Intrinsic Value per share (Gordon)}, \boldsymbol{V_0} = \frac{Total\ PV\ using\ Long\ Term\ Growth\ Rate}{Number\ of\ Shares}$$

$$\textbf{Intrinsic Value per share} \left(\frac{\mathbf{P}}{\mathbf{E}}\right) \boldsymbol{V_0} = \frac{Total\ PV\ using\ Average\ of\ Last\ 5\ Years\ of\ P/E\ Ratio}{Number\ of\ Shares}$$

Intrinsic Value based on FCFE using Growth Model	**1008.08**	**Overvalued**
Intrinsic Value based on FCFE using P/E ratio	**5754.32**	**Undervalued**

Since the current price of MBL on December 4, 2024 is 2321.80 BDT the intrinsic value based on Growth Model is much lower than the current price, results in overvaluation of MBL's stock. In contrast, the Intrinsic Value based on P/E Ratio is much higher than the current price, results in undervaluation of MBL's stock.

3.4.6.1.2.1 Analysis of Intrinsic Values and Investment Recommendation

To select the appropriate intrinsic value model for MBL, it is required to analyze the assumptions, strengths and weaknesses of the FCFE-based models: the Long-Term Growth Rate Model and P/E ratio method. These models offer preferences more suitable for varying investment and stock market profiles.

- **Intrinsic Value of FCFE Using Gordon Growth Model (1008.08 BDT):**

The FCFE using Gordon Model applied to estimate the intrinsic value of MBL equals **1008.08 BDT**; however, the current market price of MBL's share is **2321.80 BDT**. Long-term investors and fundamental analysts find the combination of FCFE and GGM especially useful for fundamental valuation tasks. The FCFE approach reveals true cash flow using assumptions about stable growth and constant equity costs to estimate future cash flows. Stakeholders who want to understand MBL's fundamental value and believe in its long-term stability through steady growth rely on this estimation method. However, this model may understate firms with high reinvestment and future growth prospects because the model does not adjust for rapid growth or changing stock market valuations.

In my view, this model fits best for the conservative investors who rely on investing in a company like MBL with steady cash flow and moderate reinvestment strategy.

Hence, if an conservative long term Investor who focuses on stable free cash flow and assumes steady long term growth is holding MBL stocks, it is better for them to sell the MBL stock to take the short-term gain since the stock is overvalued by (2321.80 - 1008.08) = 1313.72 BDT.

- **Intrinsic Value of FCFE Using P/E Ratio (5754.32 BDT):**

The intrinsic value by FCFE Model using P/E ratio method is **5754.32** BDT, which is much higher than the current value of 2321.80 BDT. This intrinsic value is so high because it is based on the company's strong future cash flow projections and its high historical P/E ratio of 20.52. The assumptions is: Future cash flows from Marico Bangladesh Limited will earn high market premiums due to positive stakeholder expectations about its successful operations. Through P/E ratio calculations we determine a large terminal value representing the enterprise worth after 2028. The P/E ratio bases its calculations on the presumption that the business will retain its dominant position and exponential growth throughout time. The high estimated value for the company depends a lot on two assumptions: excellent business performance by the company and steady market valuation at premium levels. In addition, this method is not ideal for income investors because it excludes dividend payments.

In my view, such valuation is rather optimistic for MBL mainly because of the high potential free cash flows and the company's market position.

If a Growth-Oriented Investor holding such stock, he/she should hold or buy more stock to capitalize on the amount (5754.32 – 2321.80) = 3432.52 BDT.

3.4.6.1.2.2 Sensitivity Analysis

Sensitivity Gordon Model								
Growth Rate	Required Return							
1008.08	11.50%	12.00%	12.50%	13.00%	13.50%	14.00%	14.50%	15.00%
6.10%	1050.95	1035.97	1021.30	1006.95	992.90	979.15	965.68	952.49
6.20%	1051.20	1036.21	1021.54	1007.18	993.13	979.37	965.90	952.70
6.30%	1051.45	1036.45	1021.78	1007.42	993.36	979.59	966.11	952.91
6.40%	1051.69	1036.69	1022.01	1007.65	993.58	979.81	966.33	953.13
6.50%	1051.94	1036.94	1022.25	1007.88	993.81	980.03	966.55	953.34
6.60%	1052.19	1037.18	1022.49	1008.11	994.04	980.26	966.76	953.55
6.70%	1052.44	1037.42	1022.73	1008.34	994.26	980.48	966.98	953.76
6.80%	1052.68	1037.66	1022.96	1008.57	994.49	980.70	967.20	953.98

Value Ranges From	979.15
Value Ranges To	1052.68

Table 13 Sensitivity Gordon Model (FCFE)

Sensitivity analysis of MBL using FCFE with the Gordon Growth Model provides intrinsic values ranges of 979.15 BDT to 1052.68 BDT. Higher growth rates have a positive effect on the value but to slightly larger extent than required returns. This is especially true for income-focused investors as the stock is hugely overvalued and thus should be sold.

Sensitivity P/E								
P/E Ratio	Required Return							
5754.32	11.50%	12.00%	12.50%	13.00%	13.50%	14.00%	14.50%	15.00%
20.20	6043.15	5917.72	5795.54	5676.49	5560.49	5447.44	5337.26	5229.86
20.30	6067.94	5941.96	5819.24	5699.68	5583.17	5469.63	5358.97	5251.10
20.40	6092.73	5966.20	5842.95	5722.86	5605.85	5491.82	5380.68	5272.34
20.50	6117.51	5990.44	5866.66	5746.05	5628.53	5514.00	5402.38	5293.58
20.60	6142.30	6014.68	5890.36	5769.24	5651.21	5536.19	5424.09	5314.82
20.70	6167.09	6038.92	5914.07	5792.42	5673.89	5558.38	5445.80	5336.06
20.80	6191.88	6063.16	5937.77	5815.61	5696.57	5580.57	5467.50	5357.30
20.90	6216.67	6087.41	5961.48	5838.80	5719.25	5602.75	5489.21	5378.54

Value Ranges From	5447.44
Value Ranges To	6216.67

Table 14 Sensitivity P/E

The sensitivity analysis of the FCFE valuation of MBL's using the P/E ratio presents the ranges of intrinsic values between 5447.44 BDT and 6216.67 BDT depending on required returns and MBL's P/E ratio. A decline in required returns leads to increased firm value which benefits investors focused on growth through future expansion initiatives. Higher required returns reduce firm and conservative investor prefer stock purchases at discounted prices for long-term returns. At the current price of 2321.80 BDT and with a P/E ratio of 20.52, this stock is highly undervalued.

3.4.6.1.3 Relative Valuation Model

In order to calculate the intrinsic value of MBL's stock using the market multiplier or the relative valuation model I have built an Industry Metrix consists of P/E, P/S, P/B, Revenue growth, operating profit Growth, ROA and ROE for MARICO, UNILIVERCL, RECKITTBEN, ACI and KOHINOOR. The calculations are done using the 2022-2023 data to find the growth of last year **(Appendix 5)**.

Company from Pharmaceuticals and Chemicals Industry	P/E	P/S	P/B	Revenue Growth	Operating Profit Growth	ROA	ROE
UNILIVERCL	64.81	9.62	14.2	-3.54%	9.43%	19.40%	40.76%
RECKITTBEN	32.86	4.03	15.71	6.24%	24.72%	22.70%	82.22%
ACI	31.05	0.17	2.29	5.28%	-28.28%	2.71%	8.22%
KOHINOOR	-6.06	3.81	11.85	14.04%	51.52%	11.11%	20.88%
Industry AVG	**31.96**	**5.82**	**11.85**	**5.51%**	**14.35%**	**13.98%**	**38.02%**

Table 15 Industry Metrix for Market Multiplier Model

To come up with the industry average I have left out some of the outliers based on my own assumptions. For example, for P/E ratio, I have taken only the average of UNILIVERCL and RECKITTBEN since ACI has a negative P/E ratio and KOHINOOR has very high ratios, which is very unlikely and can be a result of market manipulation. For the P/S and P/B, I have taken the average of all except ACI since the value is very low which is company specific and doesn't reflect the market or industry properly. From this, I have calculated the intrinsic value of MBL's stock based on the relative valuation methods and the formula I have used to calculate this is given below:

Industry P/E	31.96
Company EPS of 2023	122.93
Intrinsic Value	3928.23
Current Price (4/12/2024)	2,321.80
Undervalued	40.89%

Table 16 intrinsic value of MBL's stock (Relative valuation method)

$$\textbf{Intrinsic value (Relative Valuation Method)} = \text{Industry}\frac{\text{P}}{\text{E}} \times \text{Company EPS of 2023}$$

$$\boldsymbol{Undervaluation} = 1 - \left(\frac{Current\ Price}{Intrinsic\ Value}\right)$$

3.4.6.1.3.1 Analysis of Intrinsic Values and Investment Recommendation

The Relative valuation model applied using the MBL's Industry P/E ratio of 31.96 and MBL's EPS of 122.93 arrives at an intrinsic value of MBL's stock of 3928.23 BDT. This value is much higher than the current market price of 2321.80 BDT; therefore, it suggests that the stock is undervalued by a margin of 40.89%. This relative valuation method assumes that the stock of the MBL should have P/E ratio that is, in some way or another, comparable to the average P/E ratio of the industry rivals. The intrinsic value indicates the ability of MBL to generate solid earnings when compared to its current prices this therefore imply that the market is yet to place much value on the company's earnings. This discount might be a result of many factors that include market imperfections, short-term fluctuations, or deference by investors to the company or to industries in which the firm operates.

From my perspective, such a scenario signifies a strong Buy recommendation as the shares have the potential to increase by 40.89% if the company converges with the industry average P/E ratio.

3.4.6.1.3.2 Sensitivity Analysis

The analysis of MBL's intrinsic value based on the industry P/E model ranges between 2100.00 BDT and 4760.00 BDT with changes in P/E ratios 20-34 and EPS 105-140 BDT. Higher P/E and EPS increases the intrinsic value of the stock depending on market conditions and improved earnings growth.

	Sensitivity Industry P/E
Industry P/E	**Company EPS**

3928.23	105.00	110.00	115.00	120.00	125.00	130.00	135.00	140.00
20.00	2100.00	2200.00	2300.00	2400.00	2500.00	2600.00	2700.00	2800.00
22.00	2310.00	2420.00	2530.00	2640.00	2750.00	2860.00	2970.00	3080.00
24.00	2520.00	2640.00	2760.00	2880.00	3000.00	3120.00	3240.00	3360.00
26.00	2730.00	2860.00	2990.00	3120.00	3250.00	3380.00	3510.00	3640.00
28.00	2940.00	3080.00	3220.00	3360.00	3500.00	3640.00	3780.00	3920.00
30.00	3150.00	3300.00	3450.00	3600.00	3750.00	3900.00	4050.00	4200.00
32.00	3360.00	3520.00	3680.00	3840.00	4000.00	4160.00	4320.00	4480.00
34.00	3570.00	3740.00	3910.00	4080.00	4250.00	4420.00	4590.00	4760.00

From	2100.00
To	4760.00

Table 17 Sensitivity Analysis using Industry P/E for Relative Valuation Model

For the growth investors, the stock is evidently cheaper, which is why the Buy the stock is a good decision, to benefit from the growth of earnings and a favorable shift in market conditions. Income oriented investors who focus on conservative estimates could find the stock pretty much properly valued at reasonable multiples for lower P/E and EPS ratios, so it comes with a Hold recommendation. Thus, MBL has high growth potential in optimistic states of the world.

3.4.6.1.4 FootBall Field Chart of Fundamental Analysis

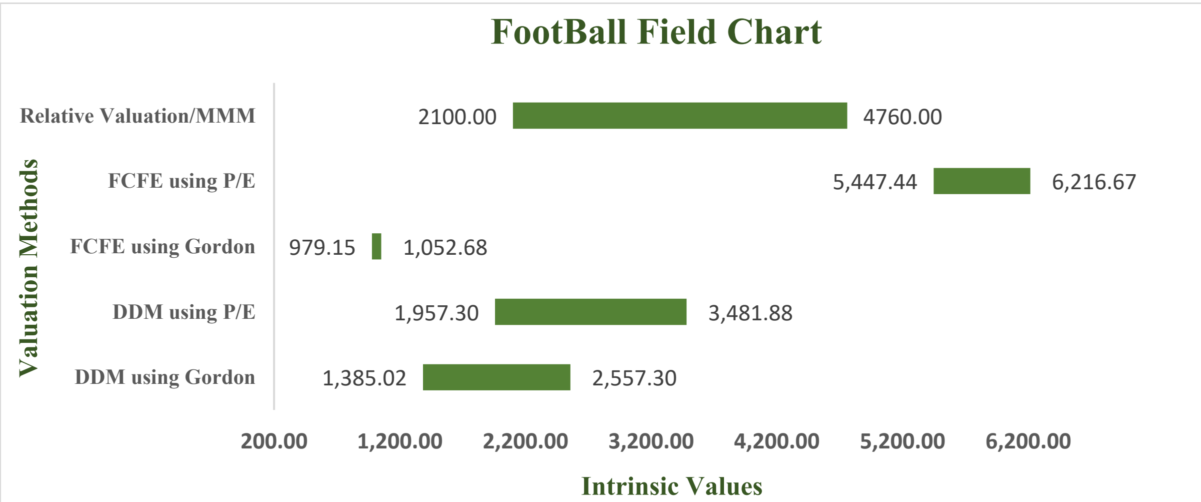


Figure 28 FootBall Field Chart of Fundamental Analysis of MBL

I have created a chart with all the intrinsic values I have calculated using all 3 fundamental model using both Gordon Growth and P/E ratio on terminal value to show the comparisons of how intrinsic values not only just varies from person to person but also varies from model to model. And for each method I have also visualized the ranges of intrinsic values from the smallest to largest by sensitivity analysis.

3.4.6.2 Technical Analysis

Technical analysis is nothing but a study of market actions using charts and graphs for the purpose of forecasting a stock price understanding what will happen in the future of a stock. This is a calculation performed in the historical data about price, and volume of MBL stock that will help investors determine what actions they need to take depending on what I think may happen in the near future.

3.4.6.2.1 Relative Strength Index (RSI)

It normally looks at the past 14 trading days and a stock gains and losses over the 14 days. So, it is looking at the relation of how big of the gains were in relation to the losses of the gains. The scale of RSI goes from 0 to 100. The gains of a stock are bigger during the stretch compared to the losses then the RSI value is going to be higher and closer to 60 or 70. It is a rare case to find a stock with an RSI of over 70 but anything closer or higher than 70 is an example of a stock being overbought due to many gains compared to the losses. In contrast, if an RSI of a stock is closer or lower than 30 then the stock is considered to be oversold meaning there has been a lot of selling pressure and there might be a potential for the stock to rebound.

I have calculated the RSI of MBL for the 5 years (2019-2023) data. First, I have calculated the gains and losses to figure out the upward and downward movement in the stocks (**Appendix 6**). Then I took the averages of 14-day period since Bangladesh's technical analysis mostly follows 14 trading days to calculate RSI.

The formula I have used to calculate the RSI is shown below:

$$\boldsymbol{Relative\ Strength\ Index\ (RSI)} = 100 - \left(\frac{100}{\frac{Average\ Upward\ Movement}{Average\ Downward\ Movement} + 1} \right)$$

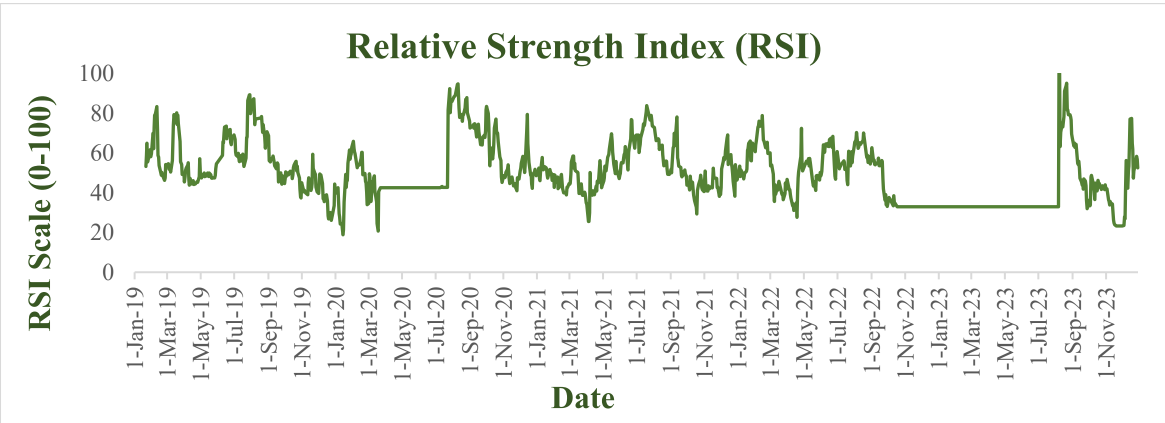


Figure 29 RSI Plot of MBL

In the graph of Relative Strength Index, MBL shows fluctuated pattern of stock and there are many cases when the stock is overbought at RSI more than 70 and oversold at RSI less than 30. For earlier in 2019, mid-2020, and at the end of 2023, the RSI moved beyond the 70 level, indicating overbought and likely to drop in value.

By looking at the RSI graphs, investors can take quick decisions or interprets whether the stocks of MBL is overbought or oversold and based on that understanding an investor can make decisions of buying or selling or holding the stocks of MBL. They can also use these trends to make better decisions. When the RSI indicator is smaller than 30, moving upward, the stock could be considered undervalued, and the right time to enter into the market because the stock is oversold and will be overbought at certain point so better to buy the stock at 30 to have the gain in the future. Conversely, where the RSI goes above 70 it could be wiser to sell or cut exposure when the upward move weakens. The cross at around 40-50 denotes a neutral phase; hence investors should look for momentum-breaks as they invest. This along with other technical indicators becomes very relevant in confirming the next course of price. The RSI it shows that MBL is coming out from oversold territory below 30 now heading towards the 50 marks, which is considered a neutral and showing that buying momentum is picking up.

From my perspective, this is a buying signal for short-term traders because there is a possibility that the stock may go up in near future. For the long-term investors then, a hold is advised and waiting for consistency, particularly if RSI reaches 70 (overbought level).

3.4.6.2.2 Moving average (Simple, Weighted)

I have calculated the simple moving average of MBL for 10, 50 and 200 days since I wanted to show the short-term, medium-term trends and to identify the long-term investment strategies **(Appendix 7).**

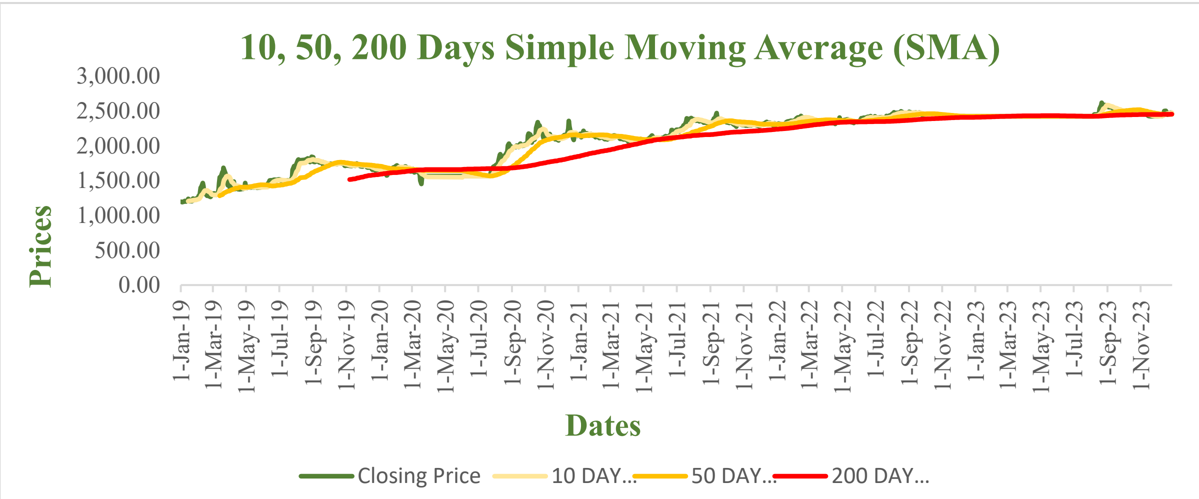


Figure 30 SMA Chart of MBL

This SMA chart for MBL shows its Short-term, Medium-term, as well as the Long-term trends. SMA with a 10-day period is used to show acute fluctuations and therefore indicates a number of buy and sell points, whereas the SMA with a 50-day period is used to show intermediate trends.

- **Golden Cross (Bullish Signal):** Investors usually look at the chart and identify the crossovers for instance current price rises above the SMA then it signals buying the stock, projecting that the stock will have gains in the future. Because, it assumes that the stock is trading higher than the average trading price and that could continue in the future ensuring the investors to gain in the short run by buying the stock.
- **Death Cross (Bearish Signal):** The crossover signals a sell indicator when a short-term current price is below a SMA, indicating the stock may be losing its value. Indicating a sell signal to the investors.

From the chart, we can see that the current price stays above all the 10, 50 and 200 day SMA and there is no strong crossovers meaning that MBL stock is stable right now which is why I suggest to hold the stock if any investors have bought it.

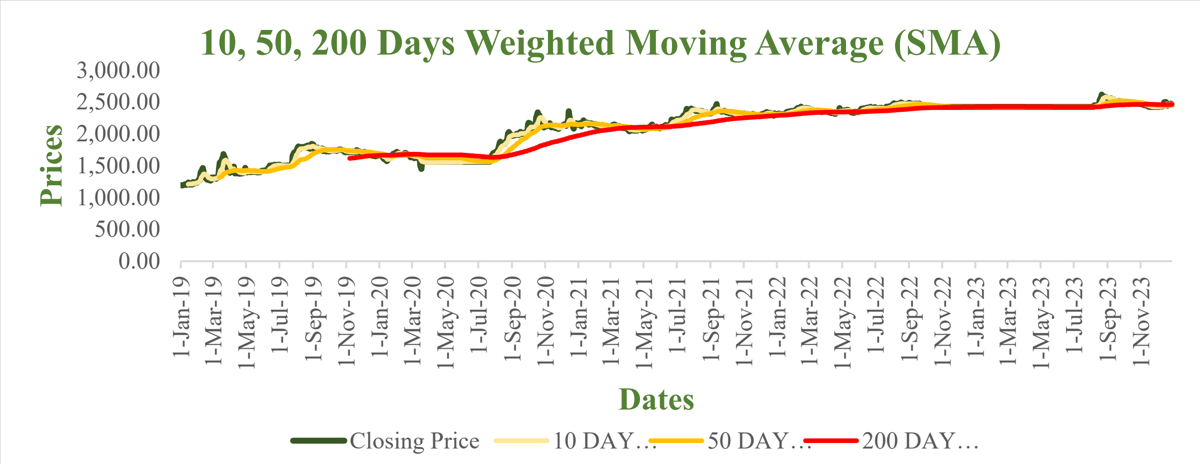


Figure 31 WMA Chart of MBL

The WMA chart depicts a closer tracking of price trends as opposed to that shown by the SMA chart. The 10-day WMA responds rapidly to short-term price fluctuations, and thus it can give quicker directions of the trend change and the 50-day and 200-day WMAs are smoother with less lag to give directions of the medium and long-term trends respectively **(Appendix 8)**. In contrast to SMA, which regards each data point identically, WMA attaches higher value to the latest prices and provides better approximation of current trends.

With this prioritization, WMA is able to give traders more accurate entry or exit points, which mean that WMA is also able to respond faster to market changes and even identify when the trend is reversing more often. ***However, the recommendation remains same as the SMA.***

3.4.6.2.3 Bollinger Bands

The Bollinger Bands created by John Bollinger is another technical analysis tool used to determine the level of volatility of the prices to find out whether a stock is overbought or oversold. It consists of 3 components: the 20-day simple moving average; the upper band, which is defined as the SMA plus 2 times standard deviation of price; the lower band which is defined as the SMA minus 2 times the standard deviation of price.

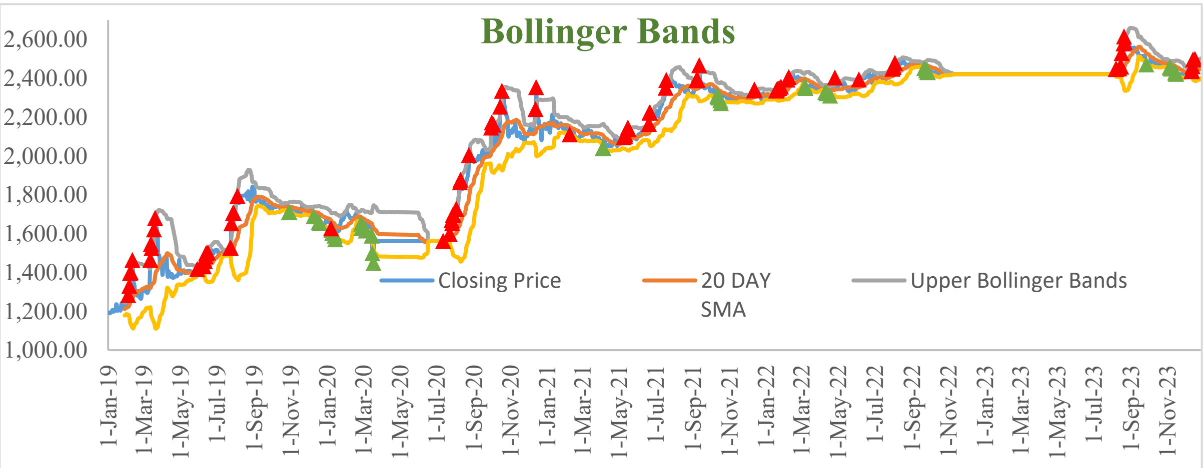


Figure 32 Bollinger Band Chart of MBL

In the chart above, the Buy signals (green arrows) emerge when the price comes down and touches or falls below the lower boundary to signify that it is oversold and likely to bounce back. On the other hand, the Sell signals (red arrows) are depicted when price moves up to or goes above the upper band indicating over bought status and hence a reversal is expected. From the above chart is it clearly shown by the Sell and buy arrow that the closing price of Marico is higher than the upper Bollinger Band meaning it is best to sell the stock during 14 December 2023 **(Appendix 9)**.

However, the at the end the closing price came in between the upper and lower band that concludes its best to hold the stock until further strong movements in the prices from my opinion.

3.4.6.3 Stock Valuation Summary

Since technical analysis is done for quickly analyzing the stock performance of MBL and there are many ways to come up with a conclusion whether a stock is doing good or not based on own perceptions, so the stock evaluation of technical analysis varies from person to person, variables to variables.

Valuation Model Used	Intrinsic Value Obtained (BDT)	Market Price (BDT)	Absolute Differences	Percentage Difference	Remark	Verdict
DDM (Gordon)	1853.75	2321.80	468.05	-20%	**Overvalued**	**Sell**
DDM (P/E)	3103.52	2321.80	781.72	34%	**Undervalued**	**Buy**
FCFE (Gordon)	1008.08	2321.80	1313.72	-57%	**Overvalued**	**Sell**
FCFE (P/E)	5754.32	2321.80	3432.52	148%	**Undervalued**	**Buy**
MMM	3928.23	2321.80	1606.43	69%	**Undervalued**	**Buy**

Table 18 Model Summary for Valuations

Based on my analysis, DDM and FCFE using the Gordon growth model is the only 2-fundamental model that advises the investors to sell the stock because of overvaluation. Moreover, the other models that is done using the P/E ratios results I undervaluation because the intrinsic value is much greater than the current price of MBL stock. The reason for higher intrinsic values in all P/E based models: One of the inconveniences of models based on P/E ratio is that it assumes constant future earnings growth for the company. If, for example, the estimated growth rates of earnings, which are used in the assessment of intrinsic value, are high, this will contribute to a higher valuation.

Thus, from my perspective I believe that the model that used P/E ratios does not reflect the current market situations or other valuable factors that could affect the intrinsic value as much as the Gordon growth model. In addition, Marico Bangladesh Limited is a multinational company and as we know MNC's pays higher dividends usually and MBL's average dividend yield percentage is 810% from 2019 to 2023 which is comparatively high. This is why DDM best suits MBL from my opinion.

3.4.7 Comparative analysis of MARICO with UNILEVERCL & RECKITTBEN

In this section, I have made a comparison with similar types of product manufacturing companies, which are operating in Bangladesh Marico Bangladesh Limited (MARICO), Unilever Consumer Care Limited (UNILEVERCL) and Reckitt Benckiser (Bangladesh) PLC (RECKITTBEN). This comparative analysis gives an understanding of the financial dimension, market position, and valuation multiples of such FMCG companies in Bangladesh.

Company Fundamentals			
Particulars	**MARICO**	**UNILEVERCL**	**RECKITTBEN**
Market Capitalization (mn)	73,372.95	48,794.86	20,514.06
Authorized Capital (mn)	400.00	200.00	250.00
Paid-Up Cap (mn)	315.00	192.74	47.25
Total Shares	31,500,000.00	19,274,318.00	4,725,000.00
Credit Rating	A	A	A
6M return	-8.01%	5.45%	0.72%
1Y return	-9.36%	25.56%	-8.82%
52 Weeks Range	1,990.00 - 2,659.90	1,801.00 - 3,370.00	3,799.00 - 5,271.00
Last Dividend Declaration Date	7/31/24	3/10/2024	5/31/2024

Table 19 Company Fundamentals of MARICO, UNILVERCL, and RECKITTBEN

3.4.7.1 Price Volume Chart

UNILEVERCL: The price-volume chart of UNILEVERCL from January 2019 to November 2023 demonstrates a smooth upward trend until the beginning of 2020, and a short spike higher than BDT 4000 earlier in 2023 due to the increased trading volume.

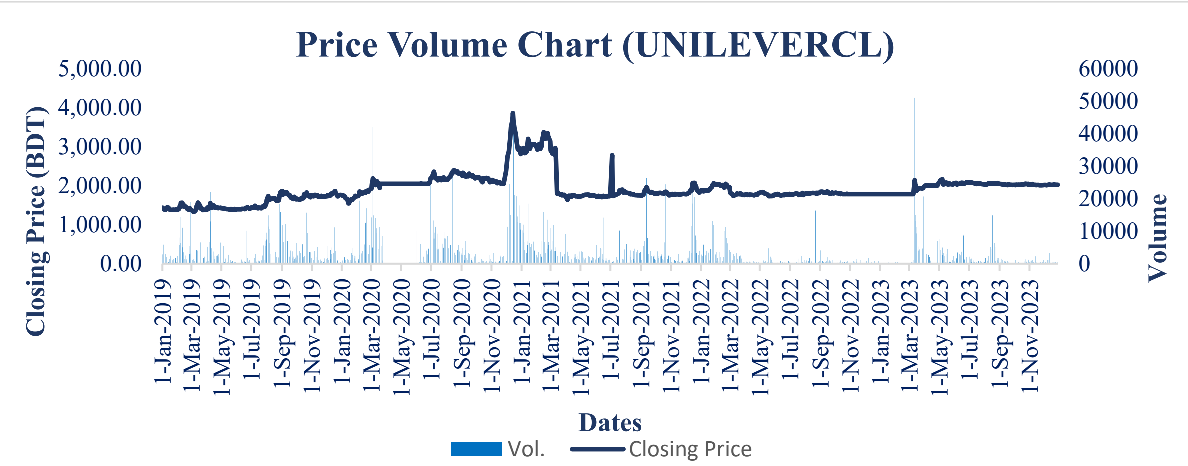


Figure 33 Price Volume Chart of UNILEVERCL

After 2020, after significant fluctuations, the stock has remained in the range of BDT 2,500 to BDT 3,000 possibly due to small fluctuations showing long-term holders due to COVID-19. However, in 2023 the price of UNILEVERCL has stabilized and the trading volume substantially declined which from my perspective is the because of more mature investors are holding and trading the UNILVERCL stocks.

RECKITTBEN: The price-volume chart for RECKITTBEN is depicted below incorporating data from 2019 to 2023 identifying the key trends. Trading in the stock was quite active in 2019, and there were many fluctuations in the share price. It has been gradually increasing from late 2019 up to 2021, reaching BDT 6,500 at one point. In the subsequent years, the price dropped and hovered within BDT 4,500 to BDT 5,000 with the volume traded much lower than before 2021.

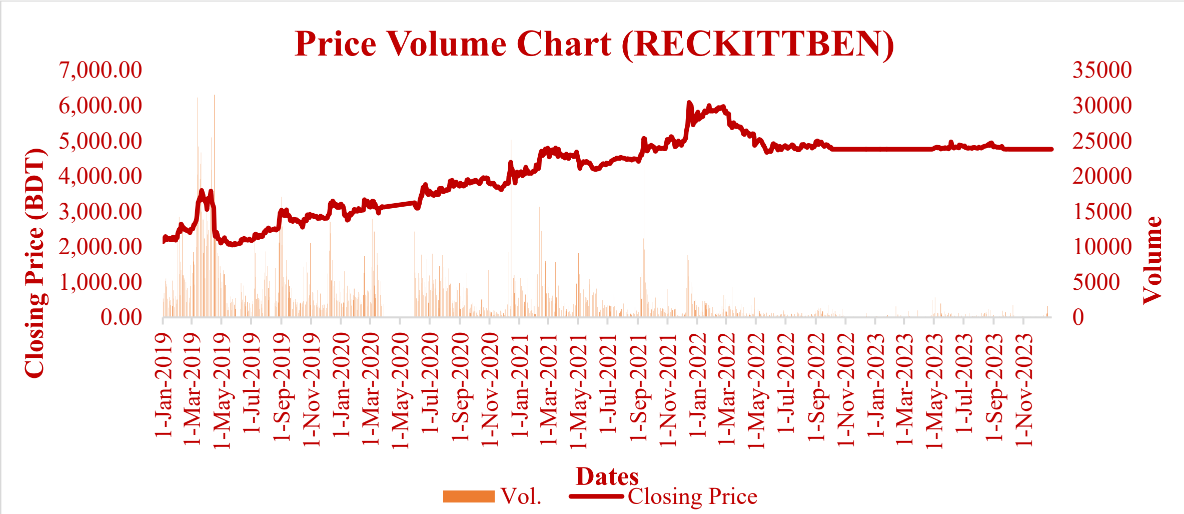


Table 20 Price Volume Chart of RECKITTBEN

After 2021, the stock price has seen a stable fluctuation and trade volume and it is seemed to be stable till 2023 with a price around BDT 4760.70. So, the trend of Reckitt Benckiser stock price is quite linear from 2022 to 2023.

3.4.7.2 Returns and Volatility Analysis

Here is a comparison of daily average return, annualized return, daily standard deviation and annualized standard deviation of all 3 companies.

Particulars	MARICO	UNILEVERCL	RECKITTBEN
Daily Average Returns	0.069%	0.073%	0.085%
No. of Trading Days	1154	1145	1128
No. of Trading Days in a Year	250	250	250
Annualized Returns	17.19%	18.34%	21.15%
Daily Standard Deviation	1.11%	2.95%	1.65%
Annualized Standard Deviation	17.55%	46.64%	26.08%

Table 21 Comparisons of Returns and Standard Deviations

Even though the daily average returns and the annualized returns of all 3 companies are quite same, Reckitt has the highest returns than Unilever and Marico. However, the standard deviation of MBL is the lowest with a 17.55%, meaning the less risky in terms of returns of all three.

MARICO: The return chart shows the discrete daily return for multiple years, where the gray shaded region represents the period with greater volatility, especially in the first 2 years, with extreme positive and negative fluctuation.

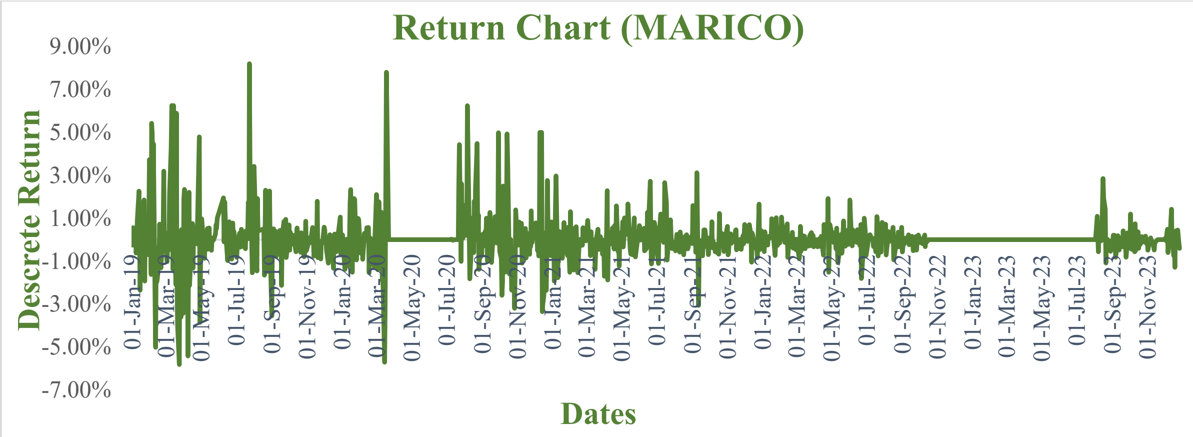


Figure 34 Return Chart of MARICO

From 2021 onwards, the returns appear less dispersed, the variability of returns is clearly less and may indicate the maturing of the market, reduced risk, better operating environment or efficiencies in handling the asset. A higher value inflation, for example, in mid-2023 seems to indicate that returns are affected by some specific event. In general, the move from high-risk phases to a moderate-risk and more consistent return profile align with the interest of moderate-risk investors.

UNILEVERCL: Specifically, the return chart of UNILEVERCL for 2019 to 2023 indicates that, overall, the stock has shown modest fluctuations with some significant irregularities from time to time. Extreme fluctuations approaching the upper and lower limits of the ranges – especially during July 2021 and March 2023.

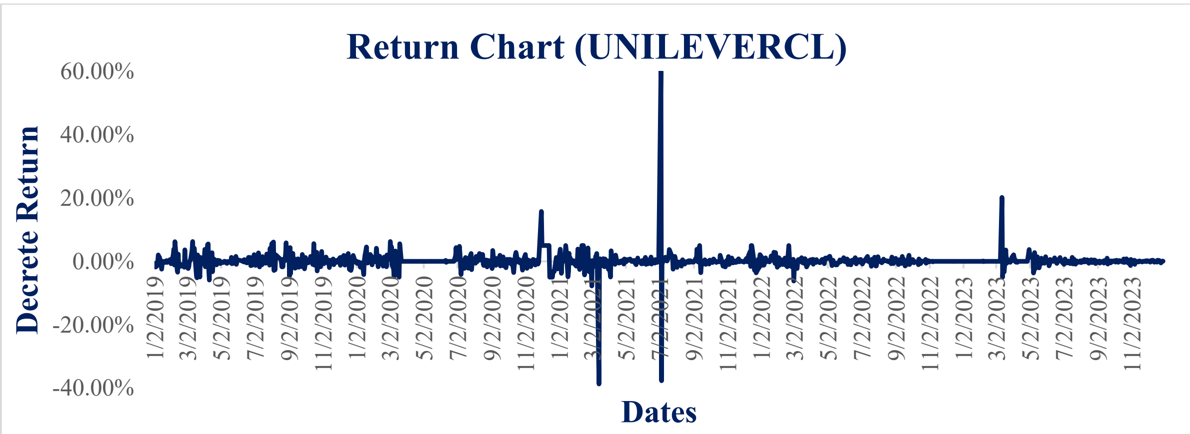


Figure 35 Return Chart of UNILEVERCL

From 2019 to February 2021 the discrete return of UNILEVERCL was quite normal. However, on 3/14/2021 after the publication of the 2021 annual report of UNILEVER Bangladesh, the closing price went down a lot and thus there was negative return of -38.69%. Meaning, many investors sold their stock after reviewing the 2021 annual report which resulted in such a low closing price. Also, in June 7th of 2021, Unilever Bangladesh published their first sustainable report of 2021 titled "Partnering Bangladesh" which clearly caused a huge return fluctuation based on perceptions of the investors (Unilever Bangladesh launches its Sustainability Report 2021 titled Partnering Bangladesh, 2021). Finally, the returns remained quite stable except some short-term risks causing small fluctuations. But for a long-term investor this is suitable.

RECKITTBEN: I have also plotted a return chart for Reckitt Benckiser which demonstrates more or less consistent returns with fluctuations, sharp drop in early 2020 mostly due COVID-19 impact.

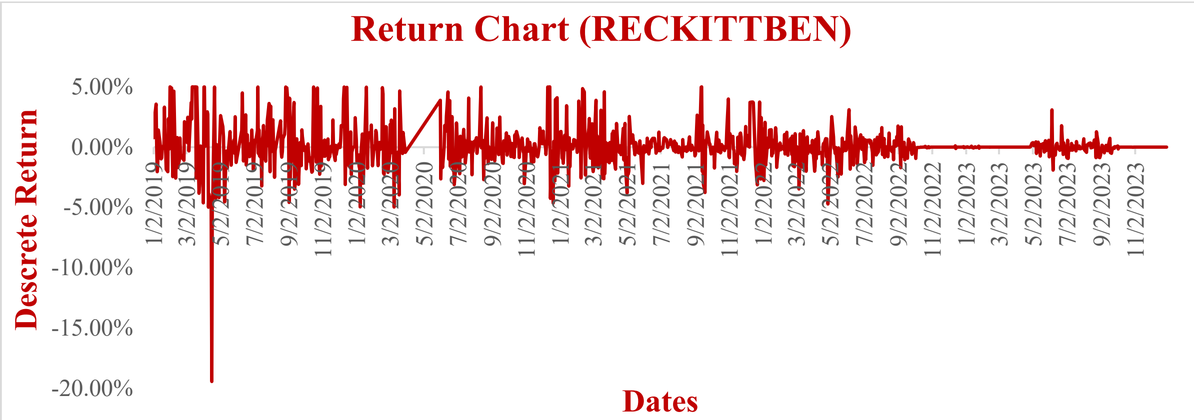


Figure 36 Return Chart of RECKITTBEN

The returns after the year 2021 are less fluctuating and more consistent and have comparatively fewer extreme values. This is further evidence of stability, which is good for the conservative investor as a means of seeking relatively safe returns.

3.4.7.3 Return Distribution Chart

Here are the comparisons of for all 3 companies and these particulars were calculated to generate the return distribution of each company.

Particulars	MARICO	UNILEVERCL	RECKITTBEN
Max	**8.20%**	**60.00%**	**5.00%**
Min	**-5.81%**	**-38.69%**	**-19.44%**
Range	**14.01%**	**98.69%**	**24.44%**
No. of Trading Days	**1154**	**1145**	**1128**
No. of Bins	**34**	**34**	**34**
Distance	**0.41%**	**2.92%**	**0.73%**
Skewness	**1.5084**	**3.9881**	**-0.9647**
Kurtosis	**13.0685**	**199.7923**	**18.9670**

Table 22 Comparisons of Skewness and Kurtosis

Unilever demonstrates a relatively high positive skewness 3.9881 and highly leptokurtic distribution with kurtosis value of 199.7923. The skewness is 1.5084, which means it has moderate positive skewness, and the kurtosis is 13.0685, indicating occasional positive outliers but good stability. RECKITTBEN has a negative skewness of -0.9647 meaning that it is more prone to negative outliers less than the mean and high kurtosis of 18.9670 meaning more extreme moderately occurring returns.

MARICO: The MARICO Return Distribution Chart has been found to be symmetrical with a single peak at 0% and the majority of the points lying in this narrow band suggesting that the variability or volatility of the company's return is low and its performance has been consistently good. The right tail is somewhat longer this is due to occasional very high positive extreme returns while negative extreme returns are rare and large in magnitude.

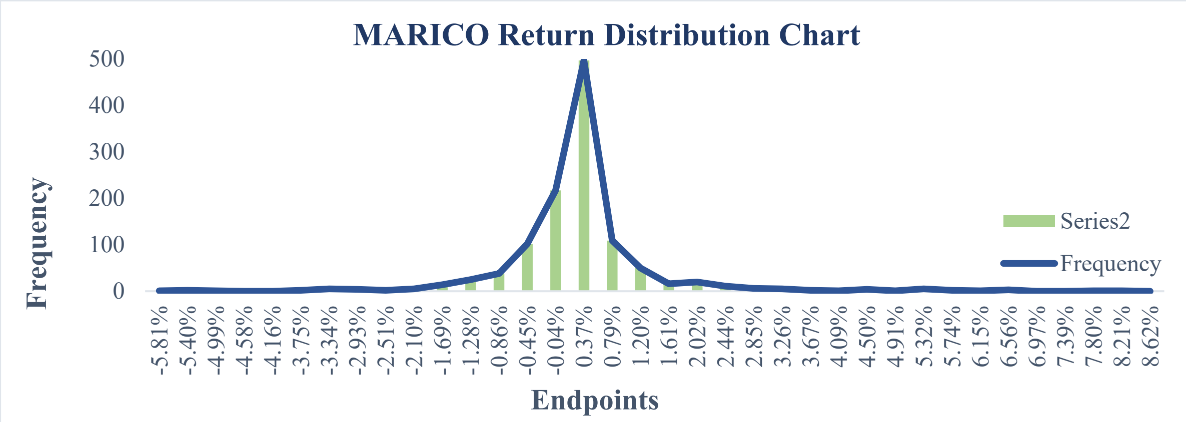


Figure 37 Return Distribution Chart of MARICO

Such Distribution indicates that MARICO is stable and it's excellent for any investor who is cautious with risks.

UNILEVERCL: It can be seen in the UNILEVERCL Return Distribution Chart that majority of the returns lie in areas close to the mean with a single sharp peak at nearly 0%, hence, there are few extreme values.

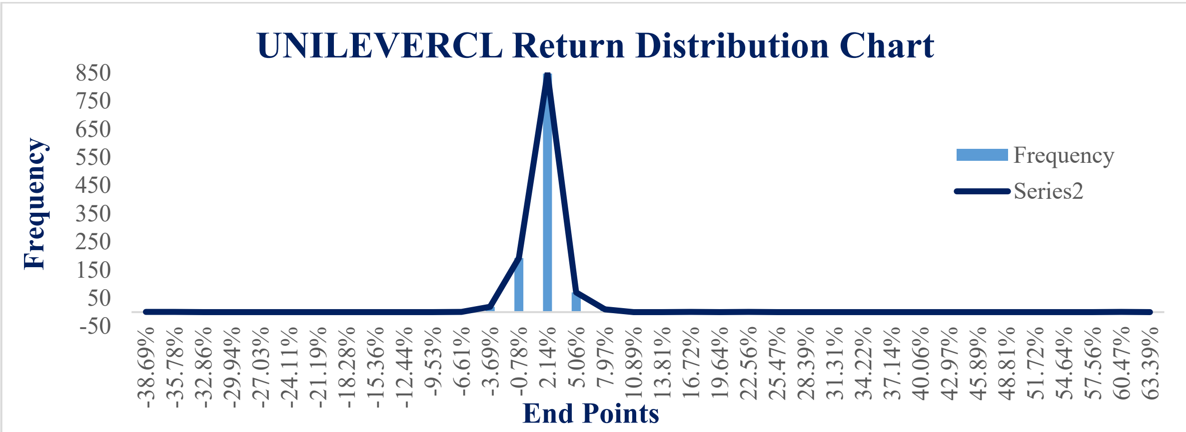


Figure 38 Return Distribution Chart of UNILEVERCL

Nonetheless, these long tails, particularly on the right side of the center line, indicate that occasional results are significantly higher than most. This distribution presents a profile of average return with occasional high-risk fluctuations, which qualifies as medium risk portfolio.

RECKITTBEN: The curve from the RECKITTBEN Return Distribution Chart has a more or less a sharp 'V' shape with the peak at approximately 0% which depicts that most of the returns are in a narrow range around the mean with less variation.

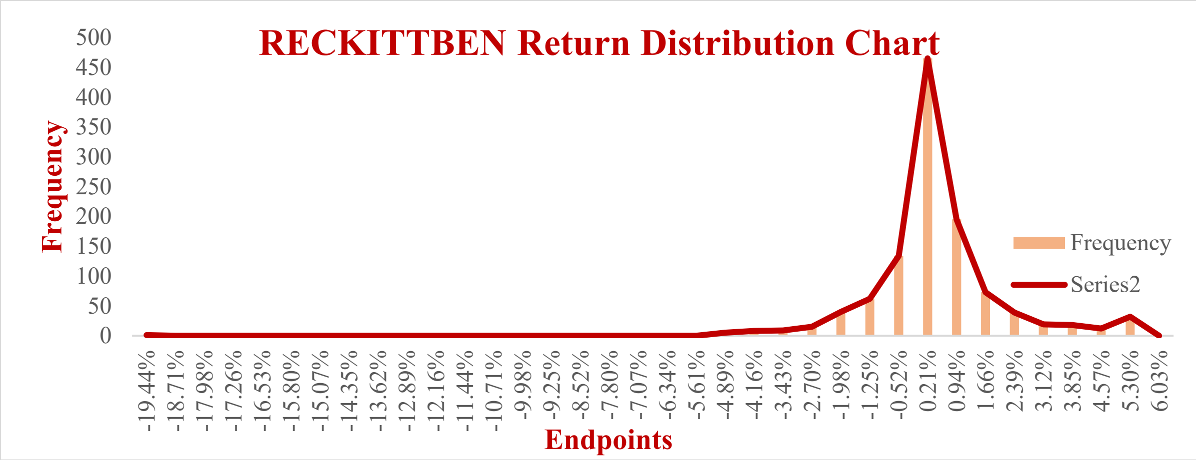


Figure 39 Return Distribution Chart of RECKITTBEN

It's longer to the left suggesting that values deviated to the left are more likely to be negative outliers than the positive outliers. This means relative steady earnings with possibility of occasional news that could drag the returns down, and that is good for investors who want to minimize risks.

3.4.7.4 Beta Analysis and Sector Fit

Here is the comparison of beta analysis between all 3 companies. Unilever has the highest beta value (0.4849), which shows the batter moves significantly in response to changes in the market, in contrast, Marico has the lowest value of beta (0.2325).

Particulars	MARICO	UNILVERCL	RECKITTBEN
Alpha	**0.0008**	**0.0003**	**0.0012**
R-squared	**0.0323**	**0.0701**	**0.0363**
Beta	**0.2325**	**0.4849**	**0.3586**

Table 23 Comparisons of Beta

And RECKITTBEN has a relatively lower value of beta (0.3586) which indicates moderate sensitivity towards the market. Regarding alpha, RECKITTBEN has higher value which points to better excess returns with 0.0012 while Unilever has 0.0003. The R-squared values are low and range between 0 .03 and 0.12 for all three indicating a poor correlation with the market with Unilever slightly better, and with the market explanation of 0.0701. This indicates that Marico and RECKITTBEN are more appropriate for investor with steadiness objectives whereas Unilever has higher market sensitivity.

UNILEVERCL: Daily returns for both UNILEVERCL and the DSEX index scatter around the origin in a dense cluster, which implies that daily returns of both are frequently small and show a weak positive correlation.

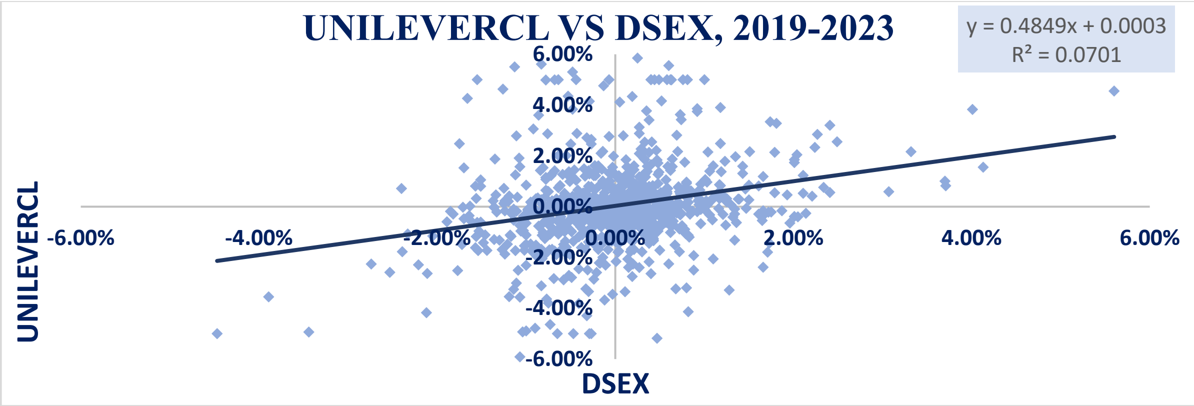


Figure 40 UNILEVERCL Beta Chart using Linear Trend

The results indicate that changes in UNILEVERCL are affected by movements of the broader market; however, in some cases UNILEVERCL's movements differ from the broader market's movements, since they are not closely connected. Occasionally, there are days of significant volatility in both directions, which reflect outliers in both directions, which may be attributable to specific company events or market-wide shifts.

RECKITTBEN: A similar clustering of RECKITTBN and the DSEX index in the scatter plot is observed in distance to the origin, which expresses mostly small daily return changes exhibiting a weak correlation with the DSEX index.

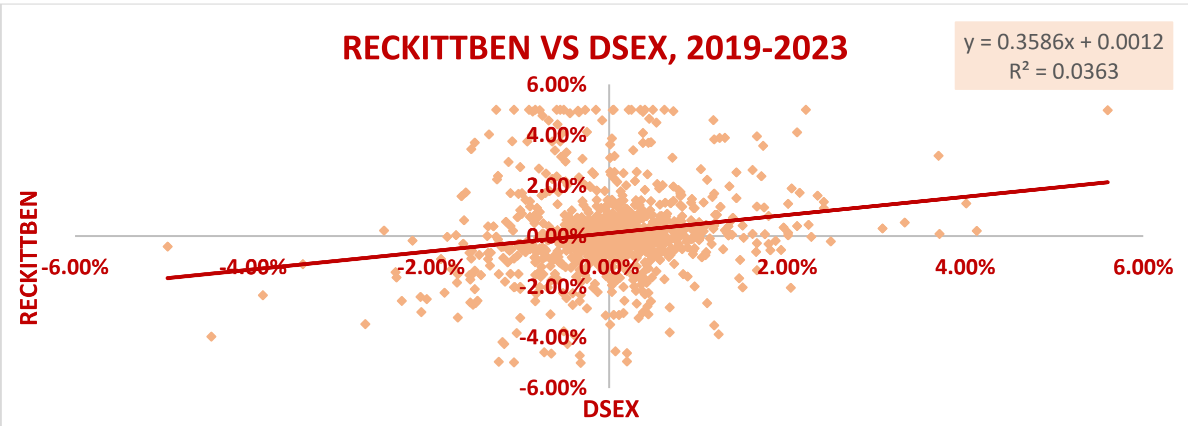


Figure 41 RECKITTBEN Beta Chart using Linear Trend

The spread around the line indicates that RECKITTBN is dominated by company-specific factors, and there are rare increases in volatility.

3.4.7.5 Peer Comparison using Valuation Ratios

I have calculated some of most valuable financial ratios of MARICO, UNILEVERCL and RECKITTBEN to have a peer comparison side by side.

	2019	2020	2021	2022	2023
Current ratio (Times)					
MARICO	1.25	1.21	1.03	1.34	1.25
UNILVERCL	1.49	1.45	1.42	1.56	1.88
RECKITTBEN	1.19	1.18	1.23	1.10	1.19
ROE					

MARICO	155.39%	190.70%	189.95%	132.16%	107.98%
UNILVERCL	63.90%	33.50%	35.60%	43.40%	40.80%
RECKITTBEN	92.00%	91.00%	85.00%	79.00%	69.00%
Gross margin					
MARICO	49.00%	57.90%	58.97%	54.26%	51.82%
UNILVERCL	55.20%	45.90%	46.40%	47.50%	42.80%
RECKITTBEN	54.00%	57.00%	55.00%	45.00%	49.00%
Earning per share (Taka)					
MARICO	64.23	84.01	98.69	112.82	122.93
UNILVERCL	84.41	41.25	43.80	37.90	49.89
RECKITTBEN	131.06	156.38	171.03	139.50	173.65
NAV per share (Taka)					
MARICO	41.34	44.05	51.95	85.37	113.85
UNILVERCL	132.10	123.10	122.90	87.20	122.20
RECKITTBEN	142.64	170.95	200.71	176.80	252.69
Dividend per share (Taka)					
MARICO	65.00	95.00	90.00	80.00	75.00
UNILVERCL	53.00	44.00	44.00	30.00	30.00
RECKITTBEN	125.00	140.00	165.00	98.00	55.00

Table 24 Peer Comparison using Valuation Ratios

Unilever, with a current ratio of 1.88 in 2023, has shown the best liquidity position in meeting short-term obligations; Marico, with a current ratio of 1.25, is also in a relatively stronger position. Among them, the position of RECKITTBN (1.19) is the weakest, which could prove challenging in a period of financial pressure.

MBL comes out on top with an impressive ROE of 107.98% in 2023, demonstrating high effectiveness in the production of returns to shareholders. This performance is most evident in RECKITTBN (69.00%), which has steady but reducing returns, and Unilever (40.80%), which is relatively poor.

MBL is consistent with gross margins (51.82%) with the ability to manage costs and pricing power. In 2023 RECKITTBN (49.00%) improved after falling previously. Beneath the marginal pressure scenario, Unilever (42.80%) has a challenging case of cost management or price competitiveness.

With an absolute EPS of 173.65, RECKITTBN tops in earnings generation. Maximum growth is demonstrated by MBL (122.93), which will attract the long-term investors. Unilever (49.89) recovered slightly, but it remains the weakest in earnings performance among peers.

Reckitt, Ben (252.69), has the highest NAV (highest) due to the strength of its asset base and financial health. While growth shown by MBL (113.85) is steady, it has taken a good amount of time to stabilize its NAV. Beyond inflation, the price recovery has been modest, and, compared to 2022, Unilever (122.20) has been picking up.

As a stable dividend payer balancing out capital needs, MBL (75.00) offers highest dividends for income-focused investors. Dividends have been slashed quite considerably by RECKITTBN (55.00). Unilever continues to lower its payouts (30.00), probably out of financial constraints or reinvestment priorities.

3.4.7.6 Monte Carlo Simulation

MARICO: This chart shows 10 of the possible future price paths of Marico, with a more stable range still. Fewer extreme outcomes tend to be anticipated by most paths, apart from moderate growth or small fluctuations.

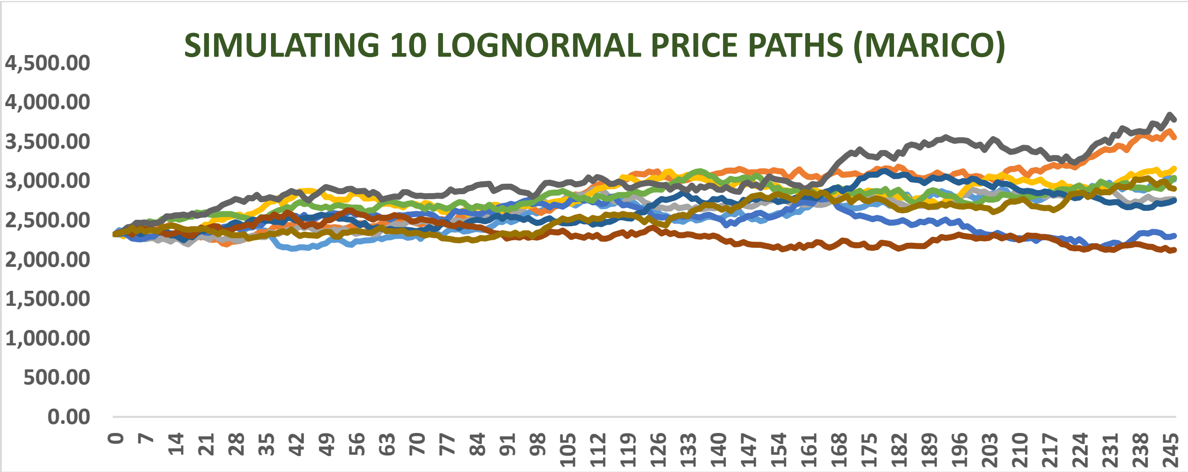


Figure 42 Monte Carlo Simulation of MARICO

This tells us that maybe Marico is a lower-risk investment but a lower-reward one too. However, investors should still take a look at the health of the company's finances and the industry as a whole to be sure it will prove as safe and steady an investment.

UNILEVERCL: A lognormal model is used with this simulation for Unilever's stock, and ten possible price scenarios are shown below. The valuation gives us some idea of how much of the same or more, or in some cases, nothing, Unilever's stock performs over the next 5 years.

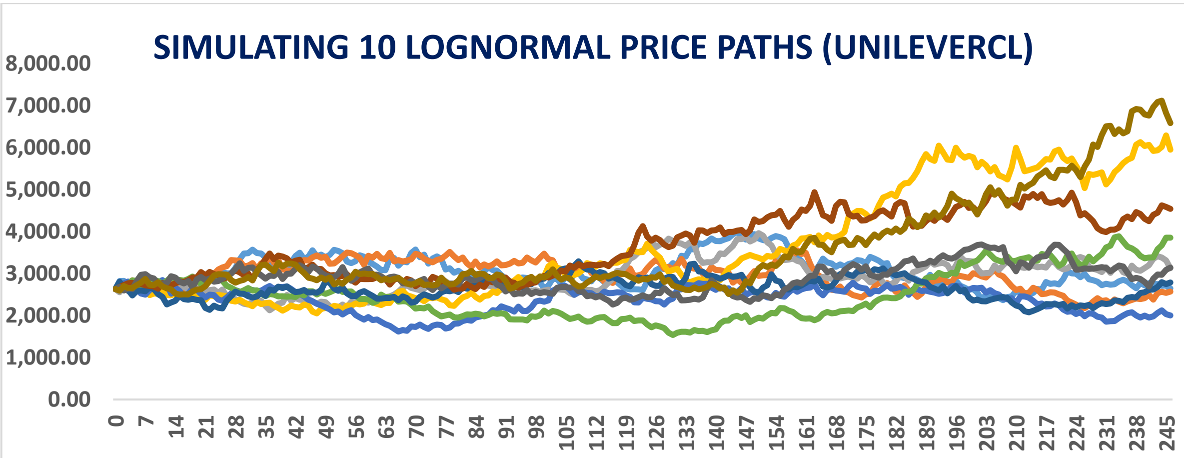


Figure 43 Monte Carlo Simulation of UNILEVERCL

The chart highlights, then, the huge upside potential as well as the risk associated with such movement and is therefore important to consider both this simulation with the fundamentals of the stock and the trends in the market before making any investment decision.

RECKITTBEN: This chart shows 10 possible price trajectories for the price of Reckitt Benckiser's stock over time, according to a model where prices follow a random walk with drift (lognormal distribution).

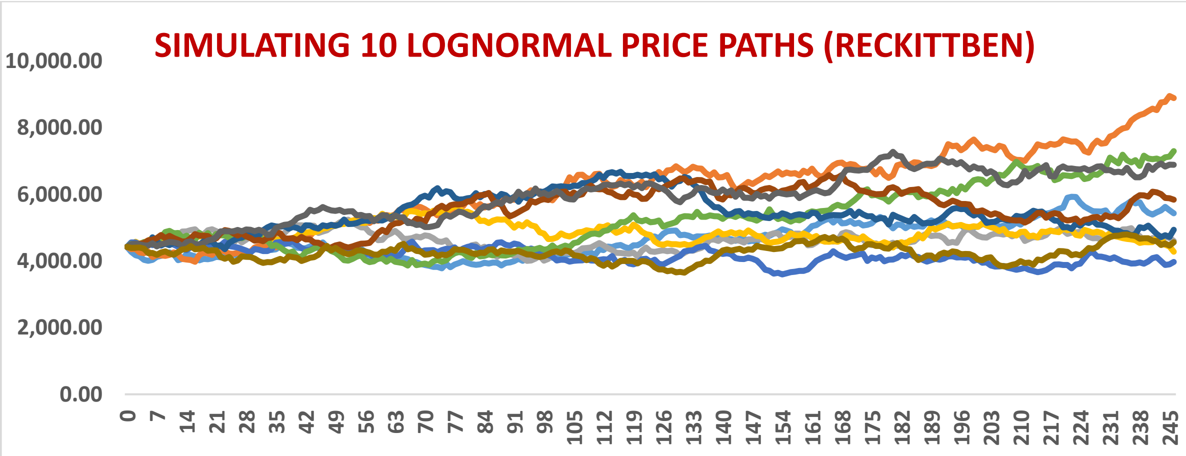


Figure 44 Monte Carlo Simulation of RECKITTBEN

Paths reflect the stock could expand significantly in some situations yet stay flat or perhaps shrink in other situations. They point to both the potential for upside and the danger. Before investing, investors should take into consideration the company's fundamentals along with market conditions while running these simulations.

3.5 Summary and Conclusions

This report presents an analysis of the stock performance of Marico Bangladesh Limited (MBL) using fundamental and technical analysis tools such as DDM, FCFE, P/E ratios, RSI, moving averages, Bollinger Bands, etc. MBL has the ability to pay dividends, and lower market volatility compared to its peers like Unilever and Reckitt Benckiser. Results from the DDM and FCFE using GGM are overvalued, whilst P/E-based DDM and FCFE valuation reveals MBL is undervalued. For income focused investors, MBL's calm and constant returns, high dividend yields and efficiency in managing costs are likely to draw interest while for the growth seekers, the stock might be of value based on its long-term growth prospects.

The comparative section compared the performance of 3 leading FMCG companies in Bangladesh: Marico Bangladesh Limited (MARICO), Unilever Consumer Care Limited (UNILEVERCL) and Reckitt Benckiser (Bangladesh) PLC (RECKITTBEN). Their financial analysis included looking at their balance sheets, operating performance, standard deviation, and P/E, D/E ratios to compare their efficiencies and market position.

MARICO has the highest market capital and gives predictable returns with the least standard deviation and is therefore preferred by the conservative investor. UNILEVERCL had high absolute price changes and market sensitivity, suggesting possibly both greater returns and larger risks. Despite moderate risk with consistent performers, RECKITTBEN produced the greatest average annualized returns in value.

That is why, if the investor prefers conservative, sustainable income generation and company with more stable background then it is better to choose MARICO, however if investor is ready to wait and get more risks for generating higher growing company then he/she could pay attention to UNILEVERCL and RECKITTBEN. The insights can be helpful when deciding on the investment strategies that correspond to the risk and value priorities by taking into account the stock market developments and corporate performance.

3.6 Recommendations

From my own analysis, investing on Marico Bangladesh Limited (MBL) is relatively safer, generates stable, regular and sustainable dividend to shareholders and is less risky. The attractiveness of the stock lies, however, in its high dividend yield and stable earnings for those interested in income, they seem to be currently overpriced based on forward-looking models like the Dividend Discount Model. Hence, investors may be inclined to sell the stock to gain their quick profits. The P/E based models for instance, point to a serious undervaluation position which could be valuable for growth seeking investors especially where there is a possibility of stock appreciation in the future. These investors should either 'hold' or 'buy' their positions in order to take advantage of long-term EPS growth. In conclusion, to buy, hold or sell should always be informed by the investors' financial returns, risk tolerance, and investment plan.

However, in my opinion, an investor holding the MBL stock should **"Sell"** the stock according to the DDM using Gordon growth model. Because, the model using P/E ratios does not reflect the current market situations or other valuable factors that could affect the intrinsic value as much as the Gordon growth model. In addition, DDM best suits MBL because Marico Bangladesh Limited is an MNC and as we know usually MNC's pays higher dividends and MBL's average dividend yield percentage is 810% from 2019 to 2023 which is comparatively high.

My analysis on why an investor should follow the DDM using Gordon Model is given below:

Firstly, Marico Bangladesh is in the FMCG sector where stable cash flows generate high dividend payments. The Gordon Growth Model shows exceptional suitability for businesses that maintain steady dividend policies thus complementing Marico's established operational framework. Also, businesses maintaining long-term dividend stability with predictable growth patterns should use the Gordon Growth Model. This dividend payout stability enables the model to recognize company value through shareholder dividend distributions.

Most importantly, Bangladeshi investors place high importance on dividends as part of their investment returns so the Gordon Growth Model effectively helps them predict long-term dividend patterns for companies.

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Appendix

Appendix 1 (Rebased Price)

Rebased Price		
Date	**MARICO Rebased Price**	**DSEX Rebased Price**
01-Jan-19	100.00	100.00
02-Jan-19	99.81	100.57
03-Jan-19	99.55	102.29
06-Jan-19	100.11	104.06
07-Jan-19	100.59	103.48
08-Jan-19	101.05	105.59
09-Jan-19	100.42	106.10
10-Jan-19	100.32	106.08
13-Jan-19	101.16	107.23
14-Jan-19	103.45	106.79
15-Jan-19	103.12	107.28
16-Jan-19	100.69	106.85
17-Jan-19	100.85	106.59
20-Jan-19	101.93	107.72
21-Jan-19	100.70	107.21
22-Jan-19	102.07	107.32
23-Jan-19	103.96	108.42
24-Jan-19	101.96	108.87
27-Jan-19	102.92	108.68
28-Jan-19	103.57	108.03
29-Jan-19	103.93	108.40
30-Jan-19	103.20	107.66

Appendix 2 (Beta)

First, I have collected the historical data of MBL and DSEX from Investing.com from 2019 January 1 to 2024 December 31st. then in order to calculate the beta I filtered out & removed all the data points when DSEX didn't have trade to match with the MARICO trading dates. Then excluded all the 0% returns on 23 March 2020 - 22 July 2020, 18 October 2022 - 3 August 2023, 20 November 2023 - 30 November 23 (due to floor price and other reasons) for accurate beta calculation, focusing on normal price fluctuations. i.e. MBL imposed floor price on July 2022. In addition, Outliers have been excluded since it does not represent the normal price fluctuations.

MARICO BANGLADESH			
Date	**Trading Code**	**Closing Price**	**Descrete Return**
01-Jan-19	MARICO	1,194.90	
02-Jan-19	MARICO	1,192.60	-0.19%
03-Jan-19	MARICO	1,189.50	-0.26%
06-Jan-19	MARICO	1,196.20	0.56%
07-Jan-19	MARICO	1,202.00	0.48%
08-Jan-19	MARICO	1,207.40	0.45%
09-Jan-19	MARICO	1,199.90	-0.62%
10-Jan-19	MARICO	1,198.70	-0.10%
13-Jan-19	MARICO	1,208.80	0.84%
14-Jan-19	MARICO	1,236.10	2.26%
15-Jan-19	MARICO	1,232.20	-0.32%
16-Jan-19	MARICO	1,203.20	-2.35%
17-Jan-19	MARICO	1,205.00	0.15%
20-Jan-19	MARICO	1,218.00	1.08%
21-Jan-19	MARICO	1,203.30	-1.21%
22-Jan-19	MARICO	1,219.60	1.35%
23-Jan-19	MARICO	1,242.20	1.85%
24-Jan-19	MARICO	1,218.30	-1.92%
27-Jan-19	MARICO	1,229.80	0.94%
28-Jan-19	MARICO	1,237.50	0.63%
29-Jan-19	MARICO	1,241.80	0.35%
30-Jan-19	MARICO	1,233.10	-0.70%
31-Jan-19	MARICO	1,238.10	0.41%
03-Feb-19	MARICO	1,284.30	3.73%

DSEX			
Date	**Trading Code**	**Closing Price**	**Descrete Return**
01-Jan-19	DSEX	5,465.25	
02-Jan-19	DSEX	5,496.43	0.57%
03-Jan-19	DSEX	5,590.47	1.71%
06-Jan-19	DSEX	5,687.00	1.73%
07-Jan-19	DSEX	5,655.18	-0.56%
08-Jan-19	DSEX	5,770.77	2.04%
09-Jan-19	DSEX	5,798.59	0.48%
10-Jan-19	DSEX	5,797.30	-0.02%
13-Jan-19	DSEX	5,860.21	1.09%
14-Jan-19	DSEX	5,836.23	-0.41%
15-Jan-19	DSEX	5,863.27	0.46%
16-Jan-19	DSEX	5,839.48	-0.41%
17-Jan-19	DSEX	5,825.57	-0.24%
20-Jan-19	DSEX	5,887.27	1.06%
21-Jan-19	DSEX	5,859.30	-0.48%
22-Jan-19	DSEX	5,865.46	0.11%
23-Jan-19	DSEX	5,925.24	1.02%
24-Jan-19	DSEX	5,950.01	0.42%
27-Jan-19	DSEX	5,939.45	-0.18%
28-Jan-19	DSEX	5,904.22	-0.59%
29-Jan-19	DSEX	5,924.53	0.34%
30-Jan-19	DSEX	5,884.11	-0.68%
31-Jan-19	DSEX	5,821.01	-1.07%
03-Feb-19	DSEX	5,801.33	-0.34%

Appendix 3 (Average Market Return)

To calculate the average market, return market cap and DSEX index data have been collected and then discrete and compounded returns are calculated based on that.

Using Market Cap (TK in million)			
Year	Market Cap	Return	
		Discrete	Compounded
2018	3847300.00		
2019	3998200.00	3.92%	103.92%
2020	3119700.00	-21.97%	78.03%
2021	5142800.00	64.85%	164.85%
2022	5177800.00	0.68%	100.68%
2023	7654720.00	47.84%	147.84%

Source: Bangladesh Bank Annual Report	
Whole Period	Using Market Cap
R_m Market Return	**14.75%**

Appendix 4 (Company P/E & Industry P/E)

Years	MARICO P/E
2019	22.37
2020	18.60
2021	21.05
2022	20.88
2023	19.70
Last 5 Years Marico P/E	**20.52**

Peer Companies (4/12/2024)	P/E
Unilever Consumer Care Limited	64.81
Kohinoor Chemical Co Bangladesh Limited	32.86
Reckitt Benckiser Bangladesh Limited	31.05
ACI Limited	-6.06
Industry P/E	**31.96**

Appendix 5 (Growth Rate for Relative Valuation)

	Peers to Peers Comparison	Year	Revenue (in crore)	Revenue Growth
Revenue Growth	Marico Bangladesh Limited	2023	1,414.00	8.52%
		2022	1,303.00	
	Unilever Consumer Care Limited	2023	395.40	-3.54%
		2022	409.90	
	Reckitt Benckiser Bangladesh Limited	2023	528.00	6.24%
		2022	497.00	

	ACI Limited	2023	299.00	5.28%
		2022	284.00	
	Kohinoor Chemical Co Bangladesh Limited	2023	536.00	14.04%
		2022	470.00	

	Peers to Peers Comparison	**Year**	**Operating Profit (in crore)**	**Operating Profit Growth**
Operating Profit Growth	Marico Bangladesh Limited	2023	514.00	10.78%
		2022	464.00	
	Unilever Consumer Care Limited	2023	106.80	9.43%
		2022	97.60	
	Reckitt Benckiser Bangladesh Limited	2023	110.79	24.48%
		2022	89.00	
	ACI Limited	2023	246.00	-28.28%
		2022	343.00	
	Kohinoor Chemical Co Bangladesh Limited	2023	50.00	51.52%
		2022	33.00	

	Peers to Peers Comparison	**Year**	**Value in crore**	**ROA**
Return on Asset	Marico Bangladesh Limited	2023	387.00	33.25%
		2022	1,164.00	
	Unilever Consumer Care Limited	2023	96.20	19.40%
		2022	496.00	
	Reckitt Benckiser Bangladesh Limited	2023	110.79	22.66%
		2022	489.00	
	ACI Limited	2023	176.00	2.71%
		2022	6,494.00	
	Kohinoor Chemical Co Bangladesh Limited	2023	38.00	11.11%
		2022	342.00	

	Peers to Peers Comparison	**Year**	**Value in crore**	**ROE**
Return on Equity	Marico Bangladesh Limited	2023	387.00	107.80%
		2022	359.00	
	Unilever Consumer Care Limited	2023	96.20	40.76%
		2022	236.00	
	Reckitt Benckiser Bangladesh Limited	2023	110.79	82.07%
		2022	135.00	
	ACI Limited	2023	176.00	8.22%
		2022	2,142.00	
	Kohinoor Chemical Co Bangladesh Limited	2023	38.00	20.88%
		2022	182.00	

Appendix 6 (RSI EXCEL)

MARICO BANGLADESH								
Date	Trading Code	Closing Price	Upward Movement	Downward Movement	Average Upward Movement	Average Downward Movement	Relative Strength	RSI
1-Jan-19	MARICO	1,194.90			14.00	14.00		
2-Jan-19	MARICO	1,192.60	0.00	2.30				
3-Jan-19	MARICO	1,189.50	0.00	3.10				
6-Jan-19	MARICO	1,196.20	6.70	0.00				
7-Jan-19	MARICO	1,202.00	5.80	0.00				
8-Jan-19	MARICO	1,207.40	5.40	0.00				
9-Jan-19	MARICO	1,199.90	0.00	7.50				
10-Jan-19	MARICO	1,198.70	0.00	1.20				
13-Jan-19	MARICO	1,208.80	10.10	0.00				
14-Jan-19	MARICO	1,236.10	27.30	0.00				
15-Jan-19	MARICO	1,232.20	0.00	3.90				
16-Jan-19	MARICO	1,203.20	0.00	29.00				
17-Jan-19	MARICO	1,205.00	1.80	0.00				
20-Jan-19	MARICO	1,218.00	13.00	0.00				
21-Jan-19	MARICO	1,203.30	0.00	14.70	5.01	4.41	1.14	53.19
22-Jan-19	MARICO	1,219.60	16.30	0.00	5.81	4.09	1.42	58.69
23-Jan-19	MARICO	1,242.20	22.60	0.00	7.01	3.80	1.85	64.86
24-Jan-19	MARICO	1,218.30	0.00	23.90	6.51	5.24	1.24	55.43
27-Jan-19	MARICO	1,229.80	11.50	0.00	6.87	4.86	1.41	58.55
28-Jan-19	MARICO	1,237.50	7.70	0.00	6.93	4.51	1.53	60.54
29-Jan-19	MARICO	1,241.80	4.30	0.00	6.74	4.19	1.61	61.65
30-Jan-19	MARICO	1,233.10	0.00	8.70	6.26	4.51	1.39	58.10
31-Jan-19	MARICO	1,238.10	5.00	0.00	6.17	4.19	1.47	59.54

Appendix 7 (SMA EXCEL)

MARICO BANGLADESH					
Date	Trading Code	Closing Price	10 DAY SMA	50 DAY SMA	200 DAY SMA
7-Nov-19	MARICO	1,710.90	1,717.40	1,746.73	1,514.18
11-Nov-19	MARICO	1,708.60	1,714.53	1,744.88	1,516.75
12-Nov-19	MARICO	1,718.40	1,714.02	1,742.41	1,519.38
13-Nov-19	MARICO	1,722.30	1,715.08	1,740.20	1,522.04
17-Nov-19	MARICO	1,709.10	1,714.96	1,739.02	1,524.60
18-Nov-19	MARICO	1,711.30	1,713.59	1,737.89	1,527.15
19-Nov-19	MARICO	1,714.60	1,713.43	1,736.89	1,529.69
20-Nov-19	MARICO	1,745.30	1,716.71	1,736.32	1,532.41
21-Nov-19	MARICO	1,730.60	1,718.37	1,735.40	1,535.07
24-Nov-19	MARICO	1,725.20	1,719.63	1,734.23	1,537.66
25-Nov-19	MARICO	1,723.80	1,720.92	1,733.30	1,540.09
26-Nov-19	MARICO	1,708.30	1,720.89	1,732.23	1,542.47
27-Nov-19	MARICO	1,705.10	1,719.56	1,731.23	1,544.98
28-Nov-19	MARICO	1,702.20	1,717.55	1,730.02	1,547.47
1-Dec-19	MARICO	1,700.10	1,716.65	1,728.64	1,549.88
2-Dec-19	MARICO	1,710.10	1,716.53	1,727.52	1,552.41
3-Dec-19	MARICO	1,717.90	1,716.86	1,727.30	1,554.91
4-Dec-19	MARICO	1,715.20	1,713.85	1,726.96	1,557.27
5-Dec-19	MARICO	1,716.80	1,712.47	1,726.35	1,559.76

Appendix 8 (WMA EXCEL)

MARICO BANGLADESH					
Date	Trading Code	Closing Price	10 DAY WMA	50 DAY WMA	200 DAY WMA
7-Nov-19	MARICO	1,710.90	1,714.63	1,734.85	1,614.62
11-Nov-19	MARICO	1,708.60	1,713.03	1,733.35	1,616.55
12-Nov-19	MARICO	1,718.40	1,713.73	1,732.31	1,618.56
13-Nov-19	MARICO	1,722.30	1,715.24	1,731.53	1,620.58
17-Nov-19	MARICO	1,709.10	1,714.15	1,730.31	1,622.44
18-Nov-19	MARICO	1,711.30	1,713.49	1,729.22	1,624.29
19-Nov-19	MARICO	1,714.60	1,713.67	1,728.31	1,626.16
20-Nov-19	MARICO	1,745.30	1,719.47	1,728.64	1,628.31
21-Nov-19	MARICO	1,730.60	1,721.99	1,728.41	1,630.28
24-Nov-19	MARICO	1,725.20	1,723.23	1,728.01	1,632.17
25-Nov-19	MARICO	1,723.80	1,723.99	1,727.60	1,634.02
26-Nov-19	MARICO	1,708.30	1,721.70	1,726.62	1,635.69
27-Nov-19	MARICO	1,705.10	1,718.83	1,725.56	1,637.31
28-Nov-19	MARICO	1,702.20	1,715.67	1,724.42	1,638.88
1-Dec-19	MARICO	1,700.10	1,712.50	1,723.25	1,640.40
2-Dec-19	MARICO	1,710.10	1,711.31	1,722.52	1,641.99
3-Dec-19	MARICO	1,717.90	1,711.55	1,722.14	1,643.64
4-Dec-19	MARICO	1,715.20	1,711.25	1,721.67	1,645.23
5-Dec-19	MARICO	1,716.80	1,711.79	1,721.27	1,646.82
8-Dec-19	MARICO	1,708.30	1,711.03	1,720.56	1,648.30
9-Dec-19	MARICO	1,689.60	1,707.18	1,719.14	1,649.57
10-Dec-19	MARICO	1,690.00	1,704.02	1,717.76	1,650.81
11-Dec-19	MARICO	1,685.40	1,700.36	1,716.24	1,652.00
12-Dec-19	MARICO	1,689.30	1,697.77	1,714.90	1,653.19
15-Dec-19	MARICO	1,690.50	1,695.63	1,713.63	1,654.38
17-Dec-19	MARICO	1,683.30	1,692.36	1,712.12	1,655.48
18-Dec-19	MARICO	1,660.90	1,685.50	1,709.77	1,656.33
19-Dec-19	MARICO	1,655.40	1,678.67	1,707.26	1,657.11
22-Dec-19	MARICO	1,659.80	1,673.74	1,704.99	1,657.92
23-Dec-19	MARICO	1,650.40	1,668.13	1,702.41	1,658.63
24-Dec-19	MARICO	1,645.90	1,662.75	1,699.72	1,659.28
26-Dec-19	MARICO	1,649.50	1,658.83	1,697.25	1,659.95
29-Dec-19	MARICO	1,655.90	1,656.80	1,695.11	1,660.68
30-Dec-19	MARICO	1,673.30	1,658.48	1,693.71	1,661.56
1-Jan-20	MARICO	1,661.80	1,658.35	1,691.90	1,662.31

Appendix 9 (Bollinger Bands EXCEL)

MARICO BANGLADESH

Date	Closing Price	20 DAY SMA	Upper Bollinger Bands	Lower Bollinger Bands	Sell Signal	Buy Signal
28-Jan-19	1,237.50	1,211.76	1244.468499	1179.051501		
29-Jan-19	1,241.80	1,214.11	1248.409916	1179.800084		
30-Jan-19	1,233.10	1,216.13	1249.866633	1182.393367		
31-Jan-19	1,238.10	1,218.56	1251.203813	1185.916187		
3-Feb-19	1,284.30	1,222.97	1265.255687	1180.674313	Sell	
4-Feb-19	1,263.50	1,226.04	1270.784486	1181.295514		
5-Feb-19	1,332.00	1,232.27	1296.528757	1168.011243	Sell	
6-Feb-19	1,397.70	1,242.16	1338.379779	1145.940221	Sell	
7-Feb-19	1,402.20	1,252.34	1369.880141	1134.789859	Sell	
10-Feb-19	1,464.80	1,265.14	1414.237131	1116.032869	Sell	
11-Feb-19	1,417.30	1,274.20	1437.237681	1111.152319		
12-Feb-19	1,346.30	1,279.90	1444.730669	1115.069331		
13-Feb-19	1,341.00	1,286.79	1449.6295	1123.9505		
14-Feb-19	1,314.60	1,292.27	1450.840935	1133.699065		
17-Feb-19	1,291.00	1,295.92	1450.605863	1141.234137		
18-Feb-19	1,280.90	1,299.80	1448.4803	1151.1197		
19-Feb-19	1,290.20	1,303.33	1447.269755	1159.390245		
20-Feb-19	1,281.50	1,305.30	1446.77295	1163.81705		

Appendix 10 (Proposal)

1.0 Problem Statement

The aim of this report is to analyze the stock price of Marico Bangladesh Limited (MBL) from 2019 to 2023. Applying both fundamental and technical analysis, I intend to evaluate MBL's intrinsic value, whether it is overvalued, undervalued, or fairly valued, and offering investors adequately informed recommendations.

1.1 Research Questions and Objectives

My primary research question is: Based on the estimation of intrinsic value from my own fundamental and technical analysis, what would be the investment decision of an investor of MBL stock?

The particular objectives of this research are:

- To determine the intrinsic value of Marico Bangladesh Limited's stock for investors, implementing 2 of the fundamental valuation methods, which are discounted cash flow models (DCF) and the relative valuation model and 3 tools of technical analysis that are used to assess MBL's trading trends, stock price movements, and volatility.
- To contrast MBL's financial performance to 2 other FMCG company in Bangladesh, Unilever Bangladesh Limited and Reckitt Benckiser Bangladesh Limited by utilizing return distributions, beta, valuation ratios, and Monte Carlo Simulation.

2.0 Preliminary Literature Review

A key player in this industry, Marico Bangladesh Limited offers a significant contribution to the health and personal care market. My goal is to analyze Marico Bangladesh Limited’s last 5 years stocks from 2019 to 2023 to find its intrinsic value by using fundamental and technical analysis and make recommendations to the investors based on my own analysis. This stock valuation is done utilizing 2 methods of fundamental analysis: Discounted cash flow models including the Dividend Discount Model (DDM), Free Cash Flows Model (FCFE) and a relative valuation model or market multiplier model. Being a multinational company, MBL provides constant dividends and therefore the methods best suited for it are the discounted cash flow models. Compared to equivalent FMCG companies, the market multiplier model offers an opportunity to analyze MBL’s position in a comparative market context. Likewise, a sensitivity analysis is prepared and presented in a football field chart.

Additionally, technical analysis has been done using tools like the Relative Strength Index (RSI), moving average (Simple and Weighted), Bollinger Bands based on the historical trading data of MBL, which will help investors make timely investment decisions and help them understand or interpret the stock pattern.

Furthermore, a comprehensive financial peer analysis is conducted between Marico Bangladesh Limited and 2 competing companies of FMCG industry: Unilever Bangladesh Ltd., and Reckitt Benckiser Bangladesh Ltd. based on financial ratios analysis, beta, and return distributions. Besides, Monte Carlo simulation has been used to obtain 10 paths for each of the stocks in the next 250 days using the annualized mean and standard deviation to predict the stock’s price for the year 2024.

3.0 Preliminary Methodology

- During FY 2019–2023, secondary data is being collected from MBL's financial records, annual reports, stock market information, and industry reports via online.
- The market multiplier, FCFE, and DDM valuation models shall all be used for fundamental analysis. And for technical, historical trading data collected via online will be used to prepare the 3 models which are Relative Strength Index (RSI), moving average (Simple, Weighted), Bollinger Bands.

4.0 Significance of the Issue and Timeline

It is essential for several stakeholders, particularly investors, legislators, and financial analysts to analyze Marico Bangladesh Limited's stock valuation. While examining MBL's potential for investment in Bangladesh's growing FMCG industry, it is necessary to understand the company's intrinsic value to acquire insight into MBL's market position and potential for future growth.

5.0 Timeline of the report work

Steps	Task	Start Date	End Date	Duration (Days)	Notes
1	Register for BUS400 Internship	21.10.24	25.10.24	5	Week 1 (Register and Setup)
2	Get assignment of Supervisor and Co-Supervisor	28.10.24	28.10.24	1	Week 2 (Orientation and Documentation)
3	Attend "Mandatory Internship Orientation Session"	29.10.24	29.10.24	1	Week 2 (Orientation and Documentation)
4	Attend initial meeting with Supervisor	03.11.24	03.11.24	1	Week 3 (Initial Planning)
5	Submit initial proposal on project to Supervisor	10.11.24	10.11.24	1	Week 3 (Initial Planning)
	Receive feedback and finalize project proposal	18.11.24	24.11.24	14	Week 4-6 (Proposal Feedback and Data Collection)
6	Collect 5 years' annual reports for MBL and competitors	10.11.24	13.11.24	3	Week 4-6 (Proposal Feedback and Data Collection)
	Gather historical stock data for MBL	13.11.24	15.11.24	2	Week 4-6 (Proposal Feedback and Data Collection)
	Prepare financial ratios and vertical/horizontal analyses	16.11.24	24.11.24	9	Week 4-6 (Proposal Feedback and Data Collection)
	Perform DDM analysis	25.11.24	01.12.24	7	Week 7-9 (Fundamental Analysis)
	Perform FCFE and FCFF analysis	02.12.24	05.12.24	4	Week 7-9 (Fundamental Analysis)
	Conduct market multiplier analysis	06.12.24	10.12.24	5	Week 7-9 (Fundamental Analysis)
	Prepare sensitivity analysis and football field chart	11.12.24	15.12.24	5	Week 7-9 (Fundamental Analysis)
	Calculate RSI	18.12.24	19.12.24	2	Week 10 (Technical Analysis)
	Compute moving averages	20.12.24	21.12.24	2	Week 10 (Technical Analysis)
	Construct Bollinger Bands	22.12.24	23.12.24	2	Week 10 (Technical Analysis)
	Analyze candlestick price volume charts	24.12.24	25.12.24	2	Week 10 (Technical Analysis)
	Conduct financial peer analysis	26.12.24	30.12.24	5	Week 11 (Peer Analysis and Forecasting)
	Prepare pro forma financial statements for 2024	31.12.24	02.01.25	3	Week 11 (Peer Analysis and Forecasting)
	Perform Monte Carlo simulations	03.01.25	08.01.25	6	Week 12-13 (Simulation and Finalization)
	Compile and review full draft report	09.01.25	13.01.25	5	Week 12-13 (Simulation and Finalization)
	Submit First Draft to Supervisor	29.12.24	29.12.24	1	Report Submissions
	Submit Second Draft to Supervisor	05.01.25	05.01.25	1	Report Submissions
	Submit Final Report to Supervisor and Library	19.01.25	19.01.25	1	Report Submissions
7	Defend/Present Report	26.01.25	26.01.25	1	Week 14-17 (Defense and Revisions)
8	Submit Revised Final Report (if revisions needed)	27.01.25	29.01.25	3	Week 14-17 (Defense and Revisions)
9	Receive Grade	02.02.25	13.02.25	11	Week 14-17 (Defense and Revisions)